Annual Scientific Meeting 2011
Diversity in an age of Standardisation
Abstracts and conference papers
Bringing skills training to life

Clinical Female Pelvic Trainer (CFPT) Mk 3 - Advanced
Part No: 60905

Standard Venepuncture Arm - Light
Part No: 00330

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General Information

Welcome to the 2011 ASM.

Registration Desk
Conference registration will take place in the Conference Centre Foyer. The registration desk will be manned at all times during the conference.

Posters/Poster Session
Posters will be displayed in the Cullen & Davidson rooms for the duration of the ASM. The Poster Session is scheduled for Thursday 14th July between 1.30pm – 2.20pm. We would ask that all poster authors stand beside their poster to answer questions about their work during this session. An index of posters along with the full abstracts are presented on this memory stick. These sessions will be chaired.

Exhibitors
A variety of exhibitors will be available to view in the Great Hall. The exhibition will remain open for the duration of the conference.

Refreshment Breaks
Continuous refreshments will be provided during the ASM. There will be a number of refreshment stations within the Great Hall & Conference Centre Foyer, please use them all to avoid congestion/long lines.

Message/Notice Board
A message/notice board will be positioned in the Conference Centre Foyer.

Catering
Lunch will be served each day in the Great Hall and Conference Centre Foyer.

Wi-fi access
Wi-fi access is available throughout the RCPE. The access codes will be provided in the rooms on site.

Emergencies
In the event of an emergency please contact a member of ASME staff. First aid is available on site.

Evaluation
Delegates will be emailed a direct link to an online conference evaluation form after the event. We value your comments and feedback and by participating in the evaluation you will be entered into a draw for 2 free conferences places for the 2012 ASM in Brighton.
Taxis
The taxi companies we recommend are:
Central Taxis 0131 229 2468
City Cabs 0131 228 1211

Social Events

Welcome Reception
Join us at the Welcome Reception on Wednesday 13th July from 8pm – 9.30pm. The event will be held at Dovecot Studios, 10 Infirmary Street, Edinburgh. Canapés and drinks will be served. Dress code: smart/casual.

Annual Dinner
The Annual Dinner will be held at the Playfair Library Hall, Old College, South Bridge, Edinburgh on Thursday 14th July. Pre-dinner drinks will be served from 7.30pm with dinner at 8pm. There is no seating plan at the Annual Dinner (apart from the top table) so if you have booked a ticket, please feel free to sit where you wish. Dress code: smart/casual.

Dietary Requirements (for the Annual Dinner only)
If you have booked to attend the Annual Dinner and have notified us of a specific dietary requirement, please let your table waiter know once seated.

Recycling
We would encourage delegates to recycle their name badges. Please look out for the recycling points throughout the conference venue.

Twitter

@asmeofficial
#asmeasm11

The information in this document is correct at time of going to print. Changes may be made to scheduling, papers may be withdrawn etc. Any such changes will be announced at the meeting and where possible advertised on notice boards at the venue.
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<tr>
<th>Time</th>
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<tr>
<td>9.00</td>
<td>Registration</td>
<td>The Queen Mother Conference Centre Cullen Suite &amp; Great Hall</td>
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<td>Setting up of Posters and Exhibits</td>
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<tr>
<td>9.30 – 12.00</td>
<td>Educator Development Group&lt;br&gt;What’s Hot in Learning and Teaching Innovations in Medical Education?&lt;br&gt;Session Chair: Dr Gill Doody, Educator Development Group Lead</td>
<td>RCPE New Library</td>
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<td>10.00-12.00</td>
<td>Pre-Conference Workshops&lt;br&gt;1. Peer feedback as an aid to learning&lt;br&gt;2. Beyond the medical record&lt;br&gt;3. Publishing descriptions of education innovation&lt;br&gt;4. Mind works for working minds&lt;br&gt;5. Writing abstracts for conferences and publication&lt;br&gt;6. 3D stereoscopic visualization&lt;br&gt;7. How space impacts on learning&lt;br&gt;8. JASME: ‘So how can I get involved with medical education as a student?’</td>
<td>Meeting Room2 Duncan Room Meeting Room1 Meeting Room 5 BMA – Meeting Rooms 1&amp;2 Meeting Room 3 Seminar Room Meeting Room 4</td>
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<tr>
<td>11.00 -12.00</td>
<td>Extended Education Research Group Meeting (open to all)</td>
<td>Main Lecture Theatre</td>
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<tr>
<td>12.00</td>
<td>Lunch, viewing of posters and exhibits&lt;br&gt;Lunch supported by Wiley-Blackwell</td>
<td>The Conference Centre Foyer, Great Hall &amp; Cullen Suite</td>
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<tr>
<td>12.15-12.45</td>
<td>JASME Orientation – a guide on how to get the most out of the ASM</td>
<td>BMA Council Chamber</td>
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<td>12.45-12.50</td>
<td>Welcome: Sir Graeme Catto, ASME President</td>
<td>Main Lecture Theatre</td>
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<tr>
<td>12.55-1.30</td>
<td>The Lord Cohen Lecture&lt;br&gt;‘In divers manners’: Exploring diversity in medical education, Professor Chris McManus, University College London, UK&lt;br&gt;Question &amp; Answer session&lt;br&gt;Session Chair: Professor Trudie Roberts, Chair of ASME Council</td>
<td>Main Lecture Theatre</td>
</tr>
<tr>
<td>1.30 -1.55</td>
<td>Refreshments and viewing of posters and exhibits</td>
<td>The Conference Centre Foyer, Great Hall &amp; Cullen Suite</td>
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<td>1.55 - 6.00</td>
<td>Members’ Papers in parallel sessions</td>
<td>See Parallel Session Timetable</td>
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<tr>
<td>5.20-6.00</td>
<td>ASME Council Meeting</td>
<td>Council Chamber BMA</td>
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<td>6.00-7.00</td>
<td>Full Journal Board of Management meeting (closed meeting)</td>
<td>BMA Ground Floor Meeting Room</td>
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<tr>
<td>Time</td>
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| 8.00-9.30| **Welcome Reception**  
Refreshments and canapés  
Supported by Wiley-Blackwell | Dovecot Studios,  
10 Infirmary Street,  
Edinburgh  
[www.dovecotstudios.com](http://www.dovecotstudios.com) |
| 9.00-9.30| What is the future of medical education?  
**Carol Herbert**, Professor, Department of Family Medicine,  
cross-appointed to Pathology, and former dean, Schulich School of Medicine & Dentistry at The University of Western Ontario in London, Canada  
Question & Answer session  
**Session Chair**: Professor Patsy Stark, Director of Strategic Development, ASME | Main Lecture Theatre |
| 9.35-10.00| New Researcher Award 2011  
Experience of Medical students Classified as Unsatisfactory at Finals  
**Dr Rakesh Patel**, Specialist Registrar in Nephrology/Honorary Clinical Education Fellow, Leicester General Hospital  
Question & Answer session  
**Session Chair**: Dr Jennifer Cleland, Chair of ASME’s Education Research Group | Main Lecture Theatre |
| 10.05–10.15| The Silver Quill and IMPACT awards and the launch of the Journal Travelling Fellowships  
**Kevin Eva**, Editor, *Medical Education* & **Steve Trumble**, Editor, *The Clinical Teacher* | Main Lecture Theatre |
| 10.15-10.40| Refreshments, viewing of posters and exhibits | The Conference Centre Foyer, Great Hall & Cullen Suite |
| 10.45-12.45| **Concurrent sessions:**  
1. Medically unexplained symptoms  
2. FAIRness and improving education on clinical placement  
3. Underperformance in medical students: different problems, different solutions?  
4. Embedding patient safety within postgraduate training  
5. Transferring debriefing skills from the simulation suite to the healthcare environment  
6. Teaching undergraduates using live clinical information systems: How to ensure you are delivering TD 19  
7. Non-technical skills and selection into specialty training programmes  
8. Start class- design your own intensive introduction programme  
9. Matrix system assessment in simulation-based medical education  
10. **JASME**: Setting up a research project in medical education | Meeting room 5  
Duncan room  
New Library  
BMA Meeting Rooms 1 & 2  
Seminar Room  
Meeting Room 2  
Meeting Room 1  
Meeting Room 3  
Main Lecture Theatre |
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<tr>
<td>10.45-12.45</td>
<td><strong>Educator Development Group</strong>&lt;br&gt;Extended meeting and World Café session (open to all interested in attending)</td>
<td>BMA Council Chamber</td>
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<td>12.45-1.30</td>
<td><strong>Lunch, viewing of posters and exhibits</strong></td>
<td>The Conference Centre Foyer, Great Hall, &amp; Cullen Suite</td>
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<td>12.45-2.45</td>
<td><strong>Concurrent session:</strong>&lt;br&gt;Safe prescribing for Junior Doctors: Educational Implications from Research. What are your views? (Working lunch)</td>
<td>BMA Ground Floor Meeting Room</td>
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<td>1.30-2.20</td>
<td><strong>Poster Session</strong></td>
<td>The Cullen Suite</td>
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<td>2.20-6.05</td>
<td><strong>Members’ papers in parallel sessions</strong></td>
<td>See parallel session timetable</td>
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<td>2.20-4.20</td>
<td><strong>Special Interest Group Meeting:</strong>&lt;br&gt;Institutional Members’ Opinion Forum</td>
<td>BMA Council Chamber</td>
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<td>5.20-6.00</td>
<td><strong>ASME AGM</strong> - open to ASME members and others who wish to attend</td>
<td>BMA Council Chamber</td>
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<tr>
<td>8.00</td>
<td><strong>Annual Dinner</strong>&lt;br&gt;Pre-dinner drinks from 7.30pm</td>
<td>Playfair Library Hall, Old College, South Bridge, Edinburgh</td>
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**Friday 15 July**

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<td>9.00-9.25</td>
<td><strong>Presentation of The 2010 Richard Farrow Gold Medal</strong>&lt;br&gt;David Swanson, Vice President, Assessment Programs, NBME, USA</td>
<td>Main Lecture Theatre</td>
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<td>Question and Answer session</td>
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<td></td>
<td><strong>Session Chair: Dr Kathy Boursicot, ASME Treasurer</strong></td>
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| 9.30-11.30 | **Concurrent sessions:**<br>Intra-conference workshops<br>1. Feedback – from theory to practice<br>2. Working with words, approaches to working with textual data<br>3. What’s working in faculty development?<br>4. Triaging the transition: a simple model for prioritizing different careers support needs<br>5. The assessment of professional attitudes<br>6. Using NICE and NHSEvidence in undergraduate teaching – sharing the experience<br>7. What’s in the box? Designing an e-portfolio toolkit<br>8. Respecting diversity in our student populations with a focus on sexuality and gender identity<br>9. Social media & networks in medical education | Meeting Room 3  
BMA Meeting Room 1 & 2  
New Library  
Meeting Room 4  
Seminar Room  
Meeting Room 5  
Duncan Room |
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<th>Time</th>
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<td>11.30-11.45</td>
<td>Refreshments</td>
<td>Main Lecture Theatre</td>
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<tr>
<td>11.45-11.50</td>
<td>JASME Brainstorming Session with members of the Education Research Group followed by JASME Committee Elections</td>
<td>Meeting Room 1 BMA Ground Floor Meeting Room</td>
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<td>11.45-12.50</td>
<td>Members’ Papers in parallel sessions</td>
<td>The Conference Centre Foyer &amp; Great Hall</td>
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<td>12.55-1.15</td>
<td>Sir John Ellis Student Prize Winner Presentation</td>
<td>Main Lecture Theatre</td>
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<td>Traditional poster board ITA versus an E-learning approach: A comparative study of students’ satisfaction</td>
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<td></td>
<td>Robert McMillan, University of Dundee, UK</td>
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<td></td>
<td>Question &amp; Answer session</td>
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<td>Session Chair: Dr Vince Cooper, JASME Liaison Lead</td>
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<td>1.15-1.35</td>
<td>Closing Plenary: Does Diversity Matter?</td>
<td>Main Lecture Theatre</td>
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<td>Professor Mona Siddiqui, Professor of Islamic Studies, Glasgow University, UK</td>
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<td>Question &amp; Answer session</td>
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<td>Session Chair: Sir Graeme Catto, ASME President</td>
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<tr>
<td>1.40</td>
<td>Announcement of Poster Prize Winner(s)</td>
<td>Main Lecture Theatre</td>
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<td>Professor Trudie Roberts, ASME Chair</td>
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<td>1.45</td>
<td>Lunch and Close of conference</td>
<td>The Conference Centre Foyer &amp; Great Hall</td>
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<td>Chairperson, Theme &amp; Room</td>
<td>2.00-2.10pm</td>
<td>2.10-2.30pm</td>
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<tr>
<td><strong>Main Lecture Theatre</strong></td>
<td>Christoph Berendonk</td>
<td>James Gildersleeve</td>
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<tr>
<td><strong>Chairs: Jean Ker &amp; Emily Bate (JASME)</strong></td>
<td>2.00-2.10pm</td>
<td>2.20-2.30pm</td>
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<td><strong>Continuing Education</strong></td>
<td>Foundation Year 1 Trainees feel Simulation Training will Enhance learning of Acute Medicine, and Development of Early confidence in Acute training may impact upon Long term Career Choice</td>
<td>The 2011 E-SIM Project: Exploring perceptions and preferences of final year medical students for simulation based learning versus e-learning in relation to their individual learning styles</td>
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<td><strong>Meeting Room 1</strong></td>
<td>Sharaina Naleem</td>
<td>Sharaina Naleem</td>
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<td><strong>Assessment</strong></td>
<td>The use of real patients in OSCEs: A survey of medical students’ predictions and opinions.</td>
<td>Assessing Professionalism and Interprofessionalism using a Portfolio of Professional Competence</td>
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<td><strong>Meeting Room 2</strong></td>
<td>Barry Gormley</td>
<td>Liz Anderson</td>
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<td><strong>Teaching &amp; Learning</strong></td>
<td>Safe and Effective Clinical Outcomes (SECO) clinics: an innovative use of simulation</td>
<td>The influence of the tutor on student performance</td>
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<td><strong>Meeting Room 4</strong></td>
<td>Emmie Smith</td>
<td>Joy MacDonald</td>
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<tr>
<td><strong>Teaching &amp; Learning</strong></td>
<td>Medical Student Pre-Prescribing: Is It Safe?</td>
<td>Empowering medical students to effect rapid curricular change</td>
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<td><strong>Meeting Room 5</strong></td>
<td>Samantha Smith</td>
<td>Stuart Holmes</td>
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<td><strong>Chair: Jane Stewart</strong></td>
<td>2.00-2.10pm</td>
<td>2.20-2.30pm</td>
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<td><strong>Teaching About Specific Subjects, Management &amp; Administration</strong></td>
<td>Recognising and Responding to Acute Patient Illness and Deterioration (RRAPID) - Developing an Undergraduate Course.</td>
<td>A new teaching forum to aid the promotion of vertical integration of basic and clinical sciences among third year medical students</td>
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<td><strong>Seminar Room</strong></td>
<td>Frank Cottingham</td>
<td>Ramawad Soobrah</td>
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<tr>
<td><strong>Chair: Joe Herzberg</strong></td>
<td>2.00-2.10pm</td>
<td>2.20-2.30pm</td>
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<tr>
<td><strong>Postgraduate Education; Staff Development</strong></td>
<td>Approaches to operative training and the implications for learning: The trainee perspective</td>
<td>Foundation doctors’ attitudes to pre-employment competency screening</td>
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<td><strong>New Library</strong></td>
<td>Senthurun Myrivanan</td>
<td>Andrew Pattison</td>
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<tr>
<td>Time</td>
<td>Session Title</td>
<td>Presenter(s)</td>
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<td>1.00-3.10pm</td>
<td>Small Grant Award 2009: Fortune-tellers or subject specialists: challenging the standard setting paradigm in medical education programmes</td>
<td>Margaret MacDougall</td>
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<td>1.00-3.10pm</td>
<td>Training on handover of patient care within UK medical schools: A questionnaire study</td>
<td>Morris Gordon</td>
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<td>1.00-3.10pm</td>
<td>Debriefing in surgical teams: How can we maximise learning?</td>
<td>Maria Ahmed Philip Brown Ingrid O'Sullivan</td>
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<td>1.00-3.10pm</td>
<td>Students’ Perceptions of Clinical Reasoning: A Qualitative Study</td>
<td>Julie Smith</td>
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<td>1.00-3.10pm</td>
<td>The Missing Link: Investigating usage variation in the NES Foundation Programme ePortfolio</td>
<td>Joel Smith</td>
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<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker(s)</td>
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<tr>
<td>4.20-4.30pm</td>
<td>Sir John Eliot Student Prize 2011 Runner-Up: Preventing Mental Health Problems in Medical Students</td>
<td>Rebecca Copplestone</td>
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<td>4.40-4.50pm</td>
<td>Admissions: Widening Participation in Greater Manchester - Pilot Study</td>
<td>Alisdair Carr, Sharmila Vohra &amp; Francesca Liuzzi</td>
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<tr>
<td>5.00-5.10pm</td>
<td>Exploring the views of medical students, at one institution, concerning whether medicine in the UK should be a postgraduate or undergraduate degree</td>
<td>Shanmugha Chada</td>
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<tr>
<td>5.20-5.30pm</td>
<td>The use of non-consultant assessors in selection to specialty training</td>
<td>Martin Roberts</td>
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<td>4.20-4.30pm</td>
<td>Strategic Diversification: RRHEAL Quality Assurance Guidelines for Distributed Educational Delivery</td>
<td>Fiona Fraser, Jean Ker</td>
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<tr>
<td>4.40-4.50pm</td>
<td>Attracting General Practitioners to rural locations in Australia: Benefits of the Prestigious General Practice Placement Program (PGPPP)</td>
<td>Stephen Lambert, Zeshan Qureshi</td>
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<tr>
<td>5.00-5.10pm</td>
<td>Centrally organised foundation doctor led teaching is an effective method to increase bedside teaching, with perceived advantages, from a learners perspective, over senior staff</td>
<td>Reza Moghaddam, Jingyi Xie</td>
</tr>
<tr>
<td>5.20-5.30pm</td>
<td>Are podcasts useful in postgraduate medical education?</td>
<td>Philip Braude</td>
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<tr>
<td>4.20-4.30pm</td>
<td>Evaluation of a Training Programme for Specialty Trainees, an update: Improving course quality to strengthen impact</td>
<td>Linda Harley, Christopher Hebbes</td>
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<tr>
<td>4.40-4.50pm</td>
<td>Medical Students’ perceptions of the causes for their errors in written examinations</td>
<td>Robert McGregor, Vasif Bravis</td>
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<td>5.00-5.10pm</td>
<td>Quality of written workplace based assessments summaries: can it be measured and what does it tell us?</td>
<td>Paul Chisholm, Stephen Lambert, Zeshan Qureshi</td>
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<tr>
<td>5.20-5.30pm</td>
<td>Problems in quality assessment of higher medical training</td>
<td>Reza Moghaddam, Jingyi Xie</td>
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<tr>
<td>4.20-4.30pm</td>
<td>Does the same undergraduate medical curriculum, delivered via two distinct parent institutions, result in graduates with measurably different attitudes and skills?</td>
<td>Stephen Costigan, Cliff Shelton, Nicola Brennan, Caroline Woodley, Zeinab Abdi</td>
</tr>
<tr>
<td>4.40-4.50pm</td>
<td>Exploring the Map of Medicines potential in undergraduate medical education</td>
<td>Zohib Alda, June Jones</td>
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<tr>
<td>5.00-5.10pm</td>
<td>Evaluating a pilot project to introduce the Ambulatory Care Environment into Medical Student Teaching</td>
<td>Christy Goodmark, Caroline Woodley</td>
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<tr>
<td>5.20-5.30pm</td>
<td>Leicester Foundation Doctors’ Journal Club: a platform for developing research skills?</td>
<td>Vittorio Papa, Rebecca Gregson</td>
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<td>4.20-4.30pm</td>
<td>The FOOT Scheme: Early Lessons Learned From The National Roll-Out Of A Near-Peer Undergraduate Teaching Scheme</td>
<td>Lidia Piri, Paul Costigan, Cliff Shelton</td>
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<td>4.40-4.50pm</td>
<td>Bed crisis at Virtual Hospital: The use of virtual patients in medical education</td>
<td>Ann Cope</td>
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<tr>
<td>5.00-5.10pm</td>
<td>Instant response software for teaching medical students - it’s the single best answer!</td>
<td>Edward Castells, Vittorio Papa</td>
</tr>
<tr>
<td>5.20-5.30pm</td>
<td>Developing a medical education community of practice with reflective blogs</td>
<td>Elly Kelley, Rebecca Gregson</td>
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<td>Stephen Lloyd-Smart, Ronald Harden, Duncan SDI</td>
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<td>Mark Thomas, Jonathan Haire</td>
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<td>Developing an undergraduate curriculum in geriatric medicine for a medical school in northern Iraq</td>
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<td>Transitioning into workplace learning across healthcare disciplines: Early findings from a comparative study of medicine, nursing and audiology at two UK universities</td>
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<td>Multidisciplinary trauma call simulated training – a first for the UK</td>
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<td>Prescribing teaching for medical undergraduates: a near peer approach led by recently graduated doctors</td>
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<td>Challenges in developing open and accessible medical education resources: lessons learnt from Uganda</td>
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<td>Competency Mapping in Quality Management of Geriatric Medicine training – A Survey of Trainees in the North-Western Deanery</td>
<td>Kate Wards, Colm Ó Tuathail, Caitlin Ryan, Jennifer Cleland</td>
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<td>Corinne Quah</td>
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| 12.10-12.20pm |
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| CanMEDS reflect? Mapping student reflections on professionalism to a competency framework |
| A longitudinal study identifies early scores in attitudinal dimensions as predictors of students' poor professionalism at the bedside |

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| **New Technologies** |
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| Gerry Gormley |
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| Virtual patients: Are students good at clinical reasoning or good at using the technology? |
| Worth a Watch: Video Tutorials Augment Practical Demonstration for Learning in the Psychomotor Domain |

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| Bethany Davies |
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| MoMEd – how mobile information resources contribute to learning in the clinical setting |
| Training the digital generation – Perception of usefulness of virtual reality laparoscopic simulators among the fourth year medical student population |
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| Evaluation of a Training Programme for Specialty Trainees, an update: Improving course quality to strengthen impact | L Halley  |
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| Quality assessment of Core Medical Training | J B Levy  
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| Utility of workplace based assessments in postgraduate core medical training | J B Levy  
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| The relationship between performance in workplace based assessments, MRCP exam and outcome from core medical training | J B Levy  
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| Which factors contribute to students’ academic under-achievement? | M Carroll  |
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**Clinical Skills**
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Stimulated by simulation? The use of endoscopy simulators as a careers advice tool
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Arts and Humanities
Watching television and understanding medical professionalism

I Wilson, R Weaver

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Background
Fictional medical television programs offer students representations of their chosen career. This study aimed to discover undergraduate medical students’ viewing of medical television programs and students’ perceptions of the professionalism demonstrated in the programs.

Methods
A survey incorporating a professional identity scale was administered to 386 undergraduate medical students across Years 1 to 4 at a university in New South Wales, Australia. The survey collected data on demographics, year of course, professional identity, viewing of medical television programs, perception of programs’ realism and depiction of professionalism. We also explored role models.

Results
The shows watched by most students were House, M.D, Scrubs, and Grey’s Anatomy, and students nominated watching 30 different medical programs in total. There was a strong relationship between year of enrolment and professional identity. The majority of students reported that friends or family members had asked them for their opinion on an ethical or medical issue presented on a program, and that they discussed the professional/ethical matters with their friends. Students had high recall of professional/ethical topics portrayed on the shows, and most believed that medical programs generally portrayed ideals of professionalism well.

Conclusions
Medical programs offer considerable currency and relevance with students and may be useful in teaching strategies that engage students in professional and ethical lessons about practising medicine.
Assessment
Prior academic achievement is a better predictor than UMAT of performance in medical programme assessments: a national study

P Poole, B Shulruf, J Rudland, T Wilkinson

P Poole, FMHS, University of Auckland, New Zealand

Background and Purpose
Medical schools continue to seek robust ways to select those who will complete the programme and make the best doctors.1 Increasingly, tests of general cognition are used in conjunction with measures of prior academic achievement and personal attributes.2 These cognitive tests are designed to measure attributes important in medicine, but not knowledge of basic medical sciences. They are theoretically and psychometrically sound,3 as well as convenient for schools; however, the predictive validity remains to be established. On the other hand, prior academic achievement is the strongest predictor of success in medical school, as a junior doctor, and in a career.4-6

This national study compared the predictive validity of the undergraduate medical admission test (UMAT) with the admission GPA, and both combined, on student performance on standard summative medical programme assessments.

Methodology
Subjects were New Zealand medical students (n = 1346) selected using UMAT since 2003. As neither NZ programme uses a threshold cut off for UMAT in selection, this allowed testing of the predictive validity of UMAT over a wide range, in students with admission GPAs determined from university courses. Regression models were built for each programme incorporating demographic variables, UMAT scores, admission GPA, with scores/grades on summative assessments as outcomes.

Results
Despite differences between the two programmes, findings were similar. The net predictive power of the admission GPA was highest for outcomes at year 2 and 5 of a six year medical programme, accounting for between 17% and 35% of the variance, with UMAT accounting for less than 10%. UMAT’s highest predictive power was 9.9% for a Year 5 written final examination. Combining UMAT with admission GPA improved predictive power only slightly. Neither UMAT nor admission GPA predicted the outcomes of the apprentice-style final year, although grading bands for this year were broader and number of evaluable students smaller.

Discussion and Conclusions
The predictive power of the general cognitive test UMAT on outcomes within a medical programme is small compared with admission GPA. While UMAT may yet be shown to predict other outcomes, including performance in medical practice, prior academic performance was a much better predictor of success in the medical programme. Longer term studies over a range of contexts are needed to determine the optimal combination of selection tools for medical programmes, and the place of general cognitive tests.

References
The use of real patients in OSCEs: A survey of medical students’ predictions and opinions

GJ Gormley, D McCusker, MA Booley, A McNeice

GJ Gormley, Senior Lecturer, Centre for Medical Education, Queen’s University Belfast, Dunluce Health Centre, 1 Dunluce Avenue, Belfast BT9 7HR.

Background and Purpose
Objective Structured Clinical Examinations (OSCEs) are widely used in assessing aspects of clinical competency. A key feature of OSCEs is their ability to allow the observation of candidates interacting with patients. Patients may be either real or simulated. Real patients provide the opportunity to demonstrate actual clinical conditions and clinical signs. Patients without clinical features may also be used to simulate a patient encounter. There are, however, issues regarding the use of real patients in OSCEs. Firstly, OSCEs are demanding and have the potential of causing distress to a patient after repeated examinations. Furthermore real patients, and their clinical features, are often difficult to standardise which can lead to candidates experiencing differences in OSCEs. Given the importance, and also the difficulties, in using real patients in OSCEs there is limited information regarding the use of such patients in this form of assessment. The aim of this study is to evaluate medical student’s predictions and opinions regarding the use of real patients in a Final MB OSCs.

Methodology
An online questionnaire was sent to final year medical students at Queen’s University Belfast. The questionnaire aimed to capture types of cases that students predicted would occur in a Final MB OSCE and reasons for making these predictions. Respondents were asked, on a 5 point likert scale, the influence such predications had on their learning behaviour.

Results
148 students responded (148/205; 72.2%) to the questionnaire. Respondents predicted 57 types of clinical conditions that may feature in a Final MB OSCE – with cardiac murmurs being the most commonly cited clinical condition (94.6%; 140/148 respondents). The prevalence of the condition and the ability to standardise across different examination venues – were considered the most important reasons in making such predications. 85.1% (126/148) of respondents strongly-agreed or agreed they focused their studies on these predications.

Discussion and Conclusions
This study provides us with the opinions of a cohort of medical students on the use real patients in OSCEs and the influence this has on their learning. A significant proportion of students appear to predicate types of real patient cases that may appear in OSCEs. Such predictions appear to drive strategic learning. Teachers need to meet the challenges of using real patients in OSCEs and widen their participation in such examinations. By failing to do so, may drive some students to ignore aspects of clinical experience in their training.

References
Evaluation of a Training Programme for Specialty Trainees, an update: Improving course quality to strengthen impact

L Halley

L Halley, Research Officer, NHS Education for Scotland, Training Development & Support Unit, SE Region, The Lister, 11 Hill Square, Edinburgh, EH8 9DR

Background
There is evidence to indicate that training courses significantly improve “generic” skills of health professionals, such as key communication skills for Oncologists. Since November 08, an evaluation of the NES Training Development Support Unit Generic Skills Programme for Specialty Trainees has been underway exploring course effectiveness beyond the standard evaluation of a delegate’s immediate reaction to training. This new work has been examining delegate satisfaction in greater depth to guide course improvement, learning acquired and importantly the impact of the training upon delegates’ attitudes and any changes in behaviour/practice on return to own working environment.

Methods & Approach
The evaluation incorporates 16 courses; the range of style/content of each has necessitated a mixed methods approach to collecting and analysing data. An appropriate method has been selected to test the level of impact on the individual according to our amended version of the Kirkpatrick training evaluation model incorporating the need for pre-training measures/scores. Level 1 impact (Reaction) is examined using an enhanced pre/post-course evaluation form for all courses, the analysis of which is fed back to the Unit at regular team meetings via Course Recommendation/Action Sheets and quality improvement Run-Charts. Level 2 impact (Learning) is being tested upon our more factual courses using pre/post-course tests of knowledge and level 3 (behaviour) being investigated using a detailed training impact survey and semi-structured interviews. Data is being transcribed and thematically analysed. The implications derived from each method are guiding a procedure that is acting as continuous feedback mechanism to improve course content/delivery.

Results
Evaluation is ongoing. Analysing quantitative/qualitative data indicated satisfaction is high with course content/delivery. 80% of courses are rated as Good/Excellent and 75% agree we are meeting learning needs. The Course Improvement Procedure has been effective in increasing satisfaction ratings for some courses i.e. Leadership and Team-working. Tested knowledge is increasing on some courses by up to two thirds. The courses are exerting a degree of behavioural change in practice and a positive impact upon delegate’s knowledge/skills, increasing confidence and raising awareness. 77% of delegates applied knowledge, and 82% attitudes taught on the courses to their job. 71% feel more effective in their role as a result of the training.

Conclusions
Communication skill courses can exert a positive impact upon doctors. Continuous feedback mechanisms for course improvement though effective when adhered to, can prove challenging to implement and sustain. However, improving the quality of courses can strengthen the impact upon individuals and organisations.

References
Medical Students’ perceptions of the causes for their errors in written examinations

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Background and Purpose
Self regulated learning describes a cycle, incorporating principles of self-assessment in order to identify a deficit, and then learning in order to correct it. Medical students and practicing doctors may struggle if they are unable to recognise their deficits and errors, or to have corrective strategies. Self-assessment is a key process in reflective learning and for self-regulated learning in professionals throughout their careers. These skills are fostered in medical school[1]. This project aims to determine, from the perspective of undergraduate medical students’, the causes of errors within written Short Answer Question (SAQ) examinations.

Methods
The aims of this exercise were to explore students’ perceptions of causes for, and factors affecting student attribution of errors made in examinations using a brainstorming and ranking exercise known as metaplanning[2, 3] in combination with a self marked mock examination exercise.

67 students from the second year cohort sat a mock examination and were asked to assign codes from a predetermined coding sheet to every subsection where they failed to score full marks. This comprised both graduate and non-graduate entry students.26 Students from a separate second year cohort were enrolled into the metaplanning session and were asked to each give and rank three types of error which they felt that students made in examinations. Visual data were thematically analysed (CH) and coded using Weft QDA software[4] via an inductive methodology to explore students’ attribution of their errors.

Results
The most common error codes in the mock exam exercise were lack of knowledge and lack of detail. Errors identified by students during the metaplanning exercise were categorised as either student or question related. The most frequently occurring errors identified during the metaplanning exercise were “Lack of subject knowledge”, “Lack of detailed knowledge” and “not understanding the question” (from a perceived badly written question, or student error). The most common error types from the coding exercise correlated with the metaplanning exercise. There was no difference in the distribution of codes with respect to students from the graduate or non-graduate entry cohort, gender or ability.

Discussion and Conclusions
We conclude that this approach is a valid method for studying student error attribution in written examinations. Students within this population tended to attribute error to “self” related codes, such as a lack of knowledge. The reasons for this will be discussed, although further work is required to fully establish the factors relating to error attribution in students.

References
Quality of written workplace based assessments summaries: can it be measured and what does it tell us?

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Introduction
Observation and workplace based assessment (WBA) of skills is an important tool in our assessment armoury with which we hope to narrow the gap between measurement of what a learner or practitioner ‘can do’ and ‘does do’. Nevertheless it is problematic. There is variability in engagement and adherence to procedure with consequential impacts on validity. There are further uncertainties about reliability and impact on learning. We contend that the agreed written summary of what the learner or practitioner should do to improve (the educational diagnosis and prescription) is an important element of and window into WBA of skills. We hypothesise that it reflects quality of the assessment (and teaching) and can be used to target tutor/assessor development.

Context
Serial Workplace Based Assessment (WBA) of skills and feeding forward of their summaries is core to the spiral skills programme at Keele. Each student will have a minimum of 11 such WBA. We have developed a web-based tool which enables generation of a personalised educational diagnosis and prescription which is emailed to the student.

Aim
To develop a measure of the quality of WBA summaries.

Methods
A quality index was developed and piloted on the year 3 WBA summaries Year 4 summaries coded by clinical teacher and practice are being assessed by pairs of assessors. We have estimated the reliability of the quality index and the time needed to assess each summary. We are investigating whether the year 4 data enable us to identify teachers and practices on which to focus staff development.

Results
The quality scale was piloted on 131 year WBA 3 summaries. The correlation (Spearman’s rho) between the pilot assessors’ scores was 0.95, Cohen’s Kappa was 0.54 (moderate agreement). The full range of scores (0-7) was obtained; the IQR was 1 to 4.125. The quality assessment took 5 hours of assessor time (2 minutes 17 seconds per report).

Discussion
Initial results suggest this approach can identify a wide range of WBA quality, is feasible and may enable targeting of teacher development. We have refined the scale descriptors and trained others in its use. We are currently using it assess the quality of the serial WBA summaries from general practice in year 4 and will use it profile the practices performance and exploring the relationship with other measures if teaching quality in the practice. We would welcome discussion on this approach to assessing teaching quality.
Problems in quality assessment of higher medical training

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Background and purpose
Quality assurance (QA) of individual training posts is an increasingly important aspect of Deanery work, highlighted recently with the need for a fair mechanism for post de-commissioning and commissioning. We have explored means for acquiring robust data about training quality in higher medical specialties in Trusts across London. A potential source of data has been the annual trainees’ survey of PMETB, now the GMC. The surveys are an important part of the evidence base that informs a range of the GMC’s QA activities.

Methodology
We analyzed in detail the higher medical specialty data from the national trainee survey for London Trusts, to try and stratify posts in each specialty and in each trust into above, below and within standards set by the GMC for training in higher medical specialties.

Results
There are major problems in using the GMC trainee survey data for comparing training posts in higher medical specialties. No data was available from Trusts with fewer than 3 trainees in a given medical specialty, representing a large proportion in Medicine (565 cases across London). Attempts to merge 2009 and 2010 data encountered coding inconsistencies over time or due to Trust mergers(location coding) and no evidence that indicators were calculated the same way each year. There were specialty coding inconsistencies(GIM vs AIM (vs Acute Medicine)) and lack of detailed data on London trainees in posts within East-of-England/Kent Surrey & Sussex. Level of training versus training needs at each stage is not considered nor is curriculum for each specialty. For dual qualification specialties (9), it is unclear which component of training is being reported. Different rotation timings created either incomplete or retrospective reporting, decreasing reliability.

Discussion and conclusions
QA of higher medical training is a growing concern. It is currently not possible to utilize the national trainee survey for assessing individual posts in higher medical training. Improved coding is needed at national level, through the deaneries and the GMC. The national survey could be changed into an end-of-post snapshot survey, to reduce method variance associated with trainee time in post. Deanery visit data will need to be incorporated to QA posts or the use of more selective end of post locally collected trainee level data.
Quality assessment of Core Medical Training

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Background
Transparent, robust and reliable methods of measuring quality of training are of fundamental importance in ensuring standards within Postgraduate Medical Education. In London there is an excess capacity for core medical training (CMT) over approved trainee numbers, and the need to be able to commission and de-commission training placements using overt criteria for quality of training. We have attempted to define the quality of CMT across London.

Methods
A quality score card based on 5 criteria was developed. We re-analysed the 2010 GMC national trainees survey data selecting and weighting the most important criteria for training quality. Scores were re-calibrated in comparison to a London mean. Outlier data for CMT for all Trusts from the survey from both 2009 and 2010 was analysed, and we identified trusts failing to improve. Training programme directors’ attendance at training committees over 3 years was scored for outliers. We analysed the e-portfolios of all CMT trainees in London for the year 2008-9 to determine the proportion of WPBAs undertaken by consultants. Other measures were considered but found not useable. A final score was derived for all Trusts training in CMT

Results
There are ~600 CMT trainees in London in 35 Trust sites. 90% of trainees responded in 2010 in the GMC trainees’ survey and data was available for all Trust sites except one. 46 of the 56 questions were selected as having most relevance to training and mean scores calculated for London. 1861 WPBAs from CMT ePortfolios were analyzed for the percentage completed by a consultant within each specific Trust. Attempts to create score systems from trainee preference at interview and MRCP pass rate proved impractical due to difficulty attributing effect to a particular Trust in a rotation. Exploration of quality assessment methods used by 6 international Academic Health Science Centres proved futile. The final criteria allowed a score to be derived for every trust and a ranking created to visualize scored components transparently. Trusts scored as performing best and worst were those expected by experienced trainers.

Discussion
We have attempted to create a transparent, reproducible and reliable system to measure the quality of Core Medical Training across multiple Trusts. The system is likely to have flaws but provides an initial platform for QA of CMT
Utility of workplace based assessments in postgraduate core medical training

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Introduction
Workplace based assessments (WPBAs) have been implemented into UK training for physicians both as assessment and formative tools. WPBAs include mini-clinical evaluation exercise (CEX), case-based discussion (CBD), multisource feedback (MSF), acute care assessment tool (ACAT) and direct observation of procedural skills (DOPS). There is no published data on the use of these tools outside of foundation training. We aimed to examine all WPBAs undertaken by core medical trainees in London between August 2008 and February 2010 to determine how they were used, differences between trainees, trainers and hospital locations, differences in performance between the tools and correlation with trainee outcomes.

Methods
We analysed anonymously, retrospectively data from all WPBAs from all CMT trainees in London. Main outcome measures included timing of assessments, assessor rating variability by different staff groups, rating variation by gender and place of medical qualification.

Results
17,661 WPBAs were analysed from 637 trainees (CT1 and CT2s). Mean scores were high (5 out of maximum 6), assessments performed on wards yielding higher scores than those in A+E and outpatients. Numbers of assessments per trainee varied widely: for CEX between 1 and 21. 43% of all assessments were completed in the final month of a post. There was no difference in scores by assessor grade (consultant, SpR, SHO, nurse) for ACAT, CbD and CEX. For MSF and DOPS consultants & SPRs scored trainees significantly lower. Female trainees scored better in CEX and MSF. Mean number of assessments per trainee per trust varied hugely (5-15), as did mean number of assessments done by consultants in each trust (1.5 -4.5). Trainees with more borderline ratings undertook more assessments. Mean scores were higher for UK graduates, and 47% of non-UK graduates received borderline ratings (68% of these in more than one assessment) compared with 24% UK graduates (P<0.01). Reliability coefficients (Cronbach’s) were very high for WPBAs suggesting some redundancy as assessment tools.

Conclusions
We have shown significant variation between trusts and consultants in their engagement with WPBAs, and although there is redundancy between the tools, trainees seem to respond to feedback. There is relatively little variation in performance of assessors, but interesting data on WPBAs and location of primary qualification.
The relationship between performance in work place based assessments, MRCP exam and outcome from core medical training

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Introduction
Workplace based assessments (WPBAs) have been implemented into UK training for physicians both as assessment and formative tools. WPBAs include mini-clinical evaluation exercise (CEX), case-based discussion (CBD), multisource feedback (MSF), acute care assessment tool (ACAT) and direct observation of procedural skills (DOPS). We have examined the association between all WPBAs undertaken by core medical trainees (CMT) in London between August 2008 and February 2010 and the trainees’ outcomes from the MRCP exam and their ability to secure their 1st choice of subsequent training post.

Methods
We analysed anonymously, retrospectively data from all WPBAs from all CMT trainees in London. Separately we had completed a prospective survey of all London CT2 trainees completing training in August 2010 to determine their MRCP exam status and their career choices for subsequent post.

Results
Completed questionnaires were obtained from 273 of 286 London CT2 trainees (96%). Overall 188 (70%) had achieved their 1st choice of specialist training post (ST3 medical specialites, General Practice, radiology, public health etc) of whom 110 (59%) had full MRCP (all 3 parts). Of those trainees unsuccessful in gaining their 1st choice training programme only 29 (35%) had the full MRCP exam.

All WPBAs undertaken by these trainees over the preceding 18 months were analysed. Trainees successful in obtaining their first choice post-CMT training post had higher mean scores in MSF (5.22 vs 5.02; p=0.01) and mini-CEX (5.19 vs 5.04; p=0.02) compared with those who had not achieved their first choice job. Trainees who had passed MRCP PACES scored higher across all WPBAs (excluding DOPs) compared with those who did not have full membership. Trainees with MRCP part 1 or 2 written examinations had higher mean scores in CBD only than trainees who had not passed (5.13 vs 4.97; p=0.01). In contrast, trainees who had passed PACES had higher mean scores in all four assessment tools compared with those without PACES.

Conclusions
We have shown a significant correlation between WPBA outcomes and career success, success in MRCP examinations and performance in WBPAs and between the nature of the WPBA and written and clinical exams: overall trainees with full MRCP are more likely to have performed better in WBPAs than trainees without.
Which factors contribute to students’ academic under-achievement?

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Background and Purpose
‘Non-white’ students perform less well than ‘white’ students in end-of-year examinations early in the MBBS course in the UK (1). At our medical school ‘non-white’ students arrive with equivalent prior educational attainment to ‘white’ students, but they perform less well in examinations at the end of Year 1. We have investigated possible contributory factors for this academic under-achievement: ethnic minority sub-group; socio-economic background; and type of secondary education.

Methodology
Medical students admitted in 2008 and 2009 provided: self-declared ethnicity; class of profession of parent (if 21 or under) or of self (if over 21); type of secondary school attended. Demographic data included: age; sex. Academic achievement at medical school reflected students’ examination scores at the end of Year 1 and whether the student passed or failed overall. Data for the 2008 and 2009 intakes were combined before statistical analysis with SPSS.

Results
Of the 7 ethnic minority sub-groups studied, only the ‘Other Asian’ students were more likely to fail, compared with all other ethnic sub-groups combined; these students had significantly lower scores on all examination papers (p=0.004 or less). For the 2008 intake, students from low socio-economic class (SEC) backgrounds were no more likely to fail than those from high SEC backgrounds; indeed, low SEC students gained significantly higher marks in Papers A (coursework; p=0.028) and C (Anatomy; p=0.022). There was no significant correlation between failing and type of secondary education: selective (e.g. grammar) or non-selective (e.g. comprehensive).

Discussion and Conclusions
Those students classified as ‘Other Asian’ significantly under-achieve academically at the end of Year 1, relative to their peers; this sub-group of students is predominantly of Sri Lankan origin. Further qualitative and quantitative research is needed to investigate the reasons for this poor attainment. Students of all ethnicities from low SEC backgrounds performed just as well academically as those from high SEC backgrounds. Likewise, students from non-selective schools achieved just as well as those from selective schools. These latter outcomes indicate that an apparently disadvantaged social and educational background is no barrier to high academic attainment at medical school, although students from such backgrounds might be self-selected as being the most intellectually able and motivated of their peers.

References
Assessing Professionalism and Interprofessionalism using a Portfolio of Professional Competence

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Background
Assessing professional and interprofessional development in medical school remains challenging but essential against a backdrop of public enquiries relating to serious professional lapses in doctors. Since 1996 we have used a competency model to assess the knowledge, skills and attitudes of medical students throughout their training in preparation for interprofessional practice. This is now being used as a format for collecting a personal journey for additional elements of professionalism, as required by the GMC.

Method
In 2010 the first medical students using the interprofessional aspect of this portfolio qualified. The portfolio is completed as students progress through strands of interprofessional learning (IPL) at the beginning (strand one), middle (strand two) and end (strand three) of their curriculum. Students consented to be part of a region-wide evaluation of IPL including analysis of their portfolios. Using the principles of grounded theory, we have analysed student reflections for themes and content. We report here on a random sample of n=100 reflections. Further analysis continues.

Outcomes
Early reflections tend to be descriptive and highlight stereotyping. All contain content of IPL relating to knowledge but little understanding of skills. Early stereotypical views become less evident as students progress and begin to write about the realities of interprofessional practice identifying positive needs for effective joined up working. In the final reflections students outline a richer appreciation of IPL showing insights of aligning this learning alongside clinical learning. These later reflections show the importance of integrating theory with practice as it was only through their own experiences that they fully appreciated the place of interprofessionalism within their curriculum; ‘having been through my clinical placements I now understand that good communication is often woefully absent’; ‘At the beginning it was difficult to see aims of the course…this has become more and more apparent’.

Final reflections also highlighted attitudes for future professional behaviours for example; ‘The course has taught me the importance of integrating inputs from various other groups’. The portfolio is also highlighting elements of professionalism such as students’ abilities to reflect on their learning journeys; ethical issues; communication; relationships with patients and other colleagues; and personal values such as respect. The assessed portfolios will in addition from 2012, record students’ evidence of professional behaviours including critical incidents to demonstrate professional patient-centred practice and observations of good medical practice from clinical rotations.

References
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Medical students’ attachment style, emotional intelligence and communication skills with simulated patients

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Introduction
Research has linked attachment (an emotional bond between two individuals based on the mutual expectation of provision of care and protection in times of need)1 and emotional intelligence (EI) (a type of social intelligence, involving the ability to monitor, discriminate between and use emotions to guide thinking and actions)2 to effective patient-provider communication (PPC). Findings suggest that clinicians’ attachment style influences how they respond to and communicate patients’ needs3 and that high EI is associated with the competency of interpersonal and communication skills, with doctors’ EI being one explanation as to the variation in PPC.4 Research has linked attachment style to EI and related communication; including interpersonal skills, deficits in expressivity and disclosure,5 conversational regulation6 and interpersonal sensitivity.1 This study assesses these interactions in first year medical students.

Research questions
(1) Is there a relationship between attachment and EI in first year medical students?
(2) Does this relationship influence coded video communication scores in an OSCE?

Summary of work
First year medical students at the University of Liverpool (n=350) were asked to complete a measure of EI (MSCEIT)7 and attachment (ECR-SF)8, and were videoed in a 5-minute communication skills summative OSCE. Communication was rated with the Verona VR-CoDES9 which identifies patient emotional cues/concerns and students’ associated responses.

Analysis
44.4% of students (n=156/N=351) participated. The mean number of emotional cues/concerns elicited per OSCE was 7.16, with 65.73% of student responses allowing further disclosure of the emotion. Students reported a mean EI score of 83.6, and EI was correlated with both relationship avoidance (−.307, p<.000) and relationship anxiety (−.182, p.001). The majority of students (54.4%) reported both low relationship anxiety and avoidance, which was associated with significantly higher EI (p<.000), and a higher number of cues and concerns elicited (p<.009).

Discussion and conclusion
This study found a clear link between attachment and EI in first year medical students, which influenced students’ responding to patients’ emotive cues/concerns. This provides insight into the mechanisms by which medical students communicate with emotive patients, and offers a framework for the integration of feedback of communicative strengths and weaknesses into the curriculum using individual characteristics. The current method of assessing communication skills is largely reliant on simulated patient encounters. Previous research has suggested a relationship between EI and patient outcomes,10 therefore it would be beneficial to further explore the relationships between EI, attachment and communication found in this study during “real life” PPC.

References
Teaching and learning about clinical leadership through case-based discussions

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There is now increasing acknowledgment that there is a close relationship between patient safety and leadership capacity in clinical settings (Dickinson and Ham, 2008; Goldstein and Ward, 2004). Although learning to be a good leader and follower can be successfully achieved through experiential learning in the workplace, there is still much work to be done in ensuring that all postgraduate doctors in the UK are given opportunities to develop leadership skills and knowledge in the real-life clinical setting (Edmonstone, 2008).

In this paper we draw on our experience in the Kent Surrey and Sussex Deanery’s School of Clinical Leadership so as to focus attention on how the Case-Based Discussion (CBD) can be used as a context for trainee doctors to learn about leadership. Through a detailed analysis of two actual CBDs between educational supervisors and specialty trainee doctors we show how these discussions can be used for the formative assessment of clinical leadership development for trainee doctors across all levels and specialities. Based on this evidence, the argument we advance is that focusing on the leadership aspects of the experiences discussed within a CBD provides supervisors and trainees with an opportunity to engage in generative discussions of the close relationship between clinical leadership and patient care.

In addition, CBDs that include discussion of clinical leadership can work to assist trainees to identify areas for development in their own leadership knowledge and skills. This evidence not only underlines the importance of integrating clinical leadership within the post-graduate medical curriculum, but indicates the benefits of doing so, in terms of improving patient care, experience and safety.

References
Analysis of the Use of a Bespoke VLE

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Aims
It was hypothesised that students who are fluent in using the internet will be heavy users of Aberdeen medical school’s main e-learning hubs: MyMBChB and MRC. Students who are not engaging in either the internet or MyMBChB may struggle with online medical recruitment and postgraduate training. The primary aim was assess students’ attitudes to the internet and compare it with MyMBChB usage. The secondary aim was to assess student’s opinions towards MyMBChB and its services.

Methodology
The online survey was sent to all enrolled medical students (n = 917) to assess how they access the internet and determine how much students use services such as social networking sites, Wikipedia and podcasts (Web 2.0). The results of the survey were used to make a ‘digital index’ which is a reflection of usage and engagement with the internet. By relating digital index to individual student usage of MyMBChB (via site analytics tools, Piwik), we can determine if engagement in the internet reflects engagement with the MyMBChB.

Results
There was no correlation with internet usage (‘digital index’) and MyMBChB usage (r= 0.005). The survey and site analysis revealed that most students access the site by their own laptop, mostly in the evening and stay for a period of under 30 seconds or over 15 minutes. MyMBChB is mostly used for acquiring lecture handouts and timetabling but there is potential for more online learning, quizzes and assessments. The survey revealed that students would term themselves ‘everyday communicators’ or ‘information gatherers’ and are likely to consult the internet for exam revision.

Conclusion
MyMBChB is a resource that is appreciated by students and offers many benefits to a modern medical student. There are opportunities to improve the site and some of its services, such as the podcast service. The negative correlation with digital index suggests that it is accessible to students and does not require any skills other than general familiarity with an internet browser.
Relationship between performance at selection centre and professional examinations in anaesthesia trainees

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Introduction
Assessment centres in non-medical occupations have shown good predictive validity when correlating selection performance with subsequent supervisor ratings in post, typically exhibiting correlations of r=0.28 to 0.37.1,2 A similar level of correlation has been found for a UK assessment centre recruiting junior doctors to specialty training in general practice (r=0.35) and for our South West Peninsula Deanery (SWPD) anaesthesia selection centre (r=0.33 to 0.48).3,4 However, supervisor ratings are neither the only, nor the most important, criterion of medical performance. In the case of specialty training in anaesthesia we would wish to select doctors who will successfully complete that training, a necessary hurdle to which is passing the Royal College of Anaesthetists (RCoA) examinations. We aimed to correlate performance in our selection centre, which is based on the assessment of non-technical skills, with marks obtained in the various components of the RCoA examinations.

Methods
Since 2007, all anaesthesia trainees appointed via the SWPD selection centre were consented to follow-up of their performance during training. Changes to the RCoA examinations meant we could identify only one cohort – trainees appointed at CT1 grade in 2008 – for whom sufficient data was available to establish predictive validity. Overall selection scores were correlated with first attempt scores in the three parts of the RCoA Primary examinations: the Multiple Choice Questions (MCQ) - a test of scientific knowledge, the Structured Oral Examination (SOE) – a verbal test of clinical knowledge and problem solving ability, and the Objective Structured Clinical Examination (OSCE) – a test of clinical performance. The time taken to pass (TTP) all three elements from initial appointment was also correlated with selection performance. Correlation coefficients were corrected for range restriction using Thorndike’s Case 2 formula.5

Results

<table>
<thead>
<tr>
<th>Sample size</th>
<th>MCQ</th>
<th>SOE</th>
<th>OSCE</th>
<th>TTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.19</td>
<td>0.72</td>
<td>0.61</td>
<td>-0.49</td>
</tr>
<tr>
<td>Corrected coefficient</td>
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<td>0.87</td>
<td>0.80</td>
<td>-0.69</td>
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<tr>
<td>P-value (for uncorrected coefficient)</td>
<td>0.413</td>
<td>0.001</td>
<td>0.006</td>
<td>0.047</td>
</tr>
</tbody>
</table>

Conclusions
Although based on a small sample, these results demonstrate strong predictive validity for a multi-station anaesthesia selection centre testing non-technical skills. The very strong correlations of selection centre scores with the SOE (r=0.87) and OSCE (r=0.80) compared to the purely knowledge-based MCQ (r=0.31) underline the importance of non-technical skills in clinical performance.

References
Do we need emotionally intelligent doctors? An investigation into the changes in emotional intelligence during the first year of an undergraduate medical programme

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Introduction
There is an increasing interest in the role that emotional intelligence (EI) plays in medical education,1 in particular in developing effective patient-provider communication (PPC),2 which is reflected in the definition of EI as “a type of social intelligence that involves the ability to monitor one’s own and other’s emotions, to discriminate among them, and to use this information to guide one’s own thinking and actions”.3 Research has identified the importance of interpersonal EI in patient encounters, and EI has been suggested as a means of assessing levels of professional competence.4 Medical students and doctors differ from the general population in that they are required to engage continually with relationships as part of their profession, for which EI is integral,4 and we have previously demonstrated in a pilot study that it is possible to improve medical students’ EI through an intervention.5 Here we report findings from a larger scale study of changes in EI over the course of the first year of medical education.

Methods
First year medical students of a large British PBL-based medical school (N=351) were asked to complete a measure of EI (MSCEIT)6 in their first and last month of their first year. Equivalent numbers of first-year Arts students were also approached to form a comparative control group.

Results
85 medical students (24.2% of the cohort) and a comparative group of 89 students from the non-medical student group completed the MSCEIT at both time points. No significant differences were found in terms of age, gender or ethnicity. Medical students had significantly lower EI than non-medical students upon entrance to university (91.47 vs. 98.97, P<0.000). Whilst the non-medical students’ scores significantly increased over the course of their first year (from 98.97 to 105.53, p<0.000), medical students EI significantly decreased (from 91.47 to 84.37, p<0.000).

Discussion/conclusion
In comparison to non-medical students, EI declined in medical students during their first year of training. This supports the findings of Michalec,7 who postulated that medical students’ “shed” empathy as an adaptive response to school specific stressors. It is possible that training in empathetic communication may counteract this decline in EI, and this presentation will discuss the implications of these findings for undergraduate medical education.

References
Is there a relationship between workplace-based assessments marks and OSCE/written paper marks in an undergraduate setting?

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Background and Purpose
University College London medical school (UCLMS) introduced work placed based assessments (WPBA) in 2006, for students in the first clinical year. These consisted of case based discussion (CBD) and mini-clinical evaluation exercise (mini-CEX) and were based on the tools produced for foundation doctor training. Each student was required to complete 5 assessments (2 mini-CEX and 3 CBD) for each 10 week specialty rotation (General medicine, Medical Specialties, Surgery, Care of the Older person/Orthopaedics/Rheumatology). Students rotated through two out of three possible clinical sites during the year, spending 20 weeks at each and undertook the specialties in different orders. Each WPBA was scored out of 10 and the marks contributed to a small proportion of the end of year mark.

Methodology
Students submitted WPBA marks for each rotation which were tabulated together with their end of year written paper and OSCE marks. Note was made of which sites the student undertook the different rotations and in which order, to assess whether these factors influenced the marks attained. Data for the two years were statistically analysed using SPSS for windows v12

Results
699 students undertook the WPBA assessment and the end of year OSCE and written paper over the course of two years. There was a positive correlation between the aggregate end of year assessment mark (OSCE and written paper) and the WPBA total mark (Pearson 0.37, p<0.001). This compared favourably with the correlation between end of year written paper and OSCE (Pearson 0.42, p<0.001).

There was however a significant difference in the mean WPBA marks between the four specialty specific rotations (p<0.001) and also a small but significant difference between the sites (p<0.01) the order in which the rotation were undertaken (p<0.002).

Discussion and Conclusions
The marks achieved in WPBA correlate favourably with those achieved in known gold standard formats of assessments. However in our multisite university, we have identified a small but significant difference in the marks achieved in WPBA dependant on site, rotation and order of the rotation. Due to the large number of assessors and students moving between sites, this is to be expected. As a result of this analysis, we have refined our WPBA marking scheme to remove the numerical mark thus making them entirely formative and refocused on student development.
Educational culture change: The reflective portfolio as a process

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Background and purpose
Portfolios allow for reflection conductive to continuous professional development. Their role in improving knowledge, understanding, self-awareness, reflection and independent learning is confirmed. Barriers exist to successful and continued portfolio use. Lack of guidelines and support may result in anxiety and demoralisation. Voluntary portfolio use tends to decline with time. Meanwhile, the conditions for successful implementation include: good introduction, support, clear purpose and student ownership. At Imperial College Medical School, e-portfolio was introduced in 2009/10 for students in the first two years. We studied students’ understanding of the process and further developed their portfolio and reflective culture.

Methodology
We assessed students’ perception of reflection and the e-portfolio system through focus groups of year 1 and 2 students; and year 3-5 students with no direct experience. Transcription and thematic analysis were carried out. A strategy for improved student understanding was designed and implemented.

Results
Analysis revealed a mediocre understanding of the purpose and utility of the e-portfolio. Older students saw value in portfolios for reflection and job interviews. Younger students varied in their understanding of reflection as a concept. Many complained about the effort required. Other barriers included lack of feedback, restrictive structure and technical difficulties. Students appreciated feedback given. Implementation was more successful when tightly-integrated into courses, well-supported by tutors. Challenges included how to explain e-portfolio to students and enhance tutor understanding and support.

Discussion
Based on results, we developed a strategy for improvement and cross-curricular expansion of e-portfolio. Users had to understand its purpose and feel ownership. The concept was condensed to a memorable description of activity and utility: “record, reflect, share, feedback=learn” to encourage and maintain student and faculty understanding. This featured in all portfolio activities, which we aim to embed throughout 6 years’ curriculum with active faculty ownership. Students were emailed reminders throughout the year to nurture habit. An interactive induction session emphasised the value of portfolio as a process and explained reflection through metaphor. Time and effort required, expected faculty feedback and peer-feedback mechanisms were highlighted.

Conclusions
We have developed a strategy for promoting reflection through the portfolio process based on student opinion and the literature. It will take time for the reflective culture to be embedded, a key element being older students’ support of younger students. By investing in this culture, we have supported students in reaping the benefits of this important tool for learning.

References
Introduction
Prior to medical qualification it is widely accepted that medical students should show competence in a range of practical procedures, including intimate gynaecological assessment such as digital vaginal examination and use of a speculum. Our study assessed the practical teaching needs of 4th year medical students prior to commencement of their Obstetric & Gynaecology placement.

Method
We invited 4th year students from the University of Liverpool Medical School to participate in this study. The inclusion criterion was that they had undergone 3rd year O&G training at Liverpool Women’s or Whiston Hospitals. Students filled out a questionnaire to evaluate their baseline teaching experience and confidence in performing digital vaginal and speculum examinations. They were asked if a verbal explanation or clinical demonstration would be useful to their learning needs. The students then performed a practical demonstration of the skills. The results of their performance, their baseline experience and perception of their learning needs were compared.

Results
36 medical students participated. 14% had previously only witnessed the examinations being performed, 8% had received formal clinical lab training and 78% had experience of both. When asked if they could fully recall the examination, 69% of students recalled vaginal examination, whereas only 22% of students were able to recall the technique for speculum examination. The overall consensus was that students wanted practical over verbal explanations of skills, but the majority thought both would be of benefit. 100% recognized that practical demonstration of speculum examinations would be helpful. In the practical assessment there was no difference in performance between students trained utilising both modalities, and the group who had either skills teaching or observed actual examination. Scores at the highest level in each examination were comparable. However, the distribution in the speculum examination is biased towards higher scores, despite over twice as many students perceiving that they could remember the vaginal examination technique better.

Conclusion
In this Problem-Based Learning climate, students are increasingly expected to take responsibility for their own learning. It is therefore interesting to see that practical ability and perceived confidence do not go hand-in-hand. In this cohort no difference was seen in practical assessments despite different learning modalities. This suggests that all teaching modalities were equally effective for teaching these skills; alternatively this style of examination is not sufficiently sensitive to demonstrate differences in student performance. A practical skills session prior to starting 4th year training has been identified as useful.
Modelling Virtual Patients and Generating Feedback using Semantic Web Technologies

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Background and purpose
A variety of computer programs called virtual patients systems are available today. Virtual patients are designed to emulate realistic clinical cases on a computer, and help students to practice diagnosis and clinical reasoning. They are used as an integral part of the curriculum in many medical schools\(^2\). However, the technologies currently used to build virtual patients present limitations. Feedback has to be edited manually by medical experts, and the feedback provided is often not adapted to each student's interactions with the virtual patient. This makes creating and editing a virtual patient time-consuming, and limits its pedagogical impact.

This presentation demonstrates research on automatic feedback generation for virtual patients, using a group of methods and technologies collectively known as the semantic web.

The semantic web is designed to formally represent information about digital documents and other resources (such as people and events) using RDF (Resources Description Framework)\(^3\). It is also possible to describe concepts, classify them and define their properties using OWL (Web Ontology Language)\(^4\). These formal languages also allow re-use of data from external sources from the web. To generate feedback, an adequate computer model has to be designed to represent virtual patients and students' interactions. The semantic web allows rich data modelling, and is therefore superior to traditional data technologies such as relational databases and XML for this purpose.

Methodology
A review of virtual patient commonly in use in medical education has been performed, using the literature and available demonstration version of virtual patient systems. From this review, the feedback limitation has been identified, and a proposed semantic model of virtual patients has been designed. This model harnesses the strengths of the semantic web: formal description of resources, and formal ontology allowing querying and automated reasoning. The model also includes data extracted from existing sources on the web. To test practical applications for this model, a comparison with the popular virtual patients model Medbiquitous\(^5\) has been performed. Data from existing cases downloaded from the eVip project\(^6\) was analysed and re-written using the proposed semantic model. Associated to this semantic model, queries and logic rules were programmed, in order to access data from the model and provide feedback.

Future work
To assess the benefits of the proposed model, data will be gathered through guided interviews with small groups of medical students. Students will be asked to go through the eVip case in a guided interview, and their decisions will be recorded and formalised. Their decision paths will then be anonymously reviewed by experienced clinicians for corrections and feedback. The resulting feedback will be compared with the model’s generated feedback, and the model will be improved using these results. A larger study will then evaluate how the model performs with a user interface, on a larger sample of students.

References
The ‘Unskilled and unaware’: Self-assessment in a real-world setting

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Background and purpose
Kruger and Dunning described evidence supporting the concept of ‘unskilled and unaware’. However, this was shown in experimental settings unrelated to medicine and not directly relevant to the academic ambitions of the subjects. Kruger & Dunning’s study could have been criticised on the basis that the tasks were irrelevant and likely to have been perceived by participants as arbitrary. The aim of this study was thus to determine undergraduate medical students ability to accurately self-assess their exam performance in a real-world setting, something not previously investigated. The practical anatomy examination was chosen as this examination is objectively marked, high-stakes and the information taught and examined is relevant to all stages of the students’ future career.

Methods
199 first and second year medical students were invited to participate in an online self-assessment exercise. Participating students were asked to predict their score on the Timed Practical Circuit (TPC) Anatomy exam; a practical exam where students proceed around the laboratory answering questions at each station. Students predicted their TPC score as a percentage. Demographic data were also collected for each participant (entry qualification and sex).

Results
A negative correlation was found between students’ predicted and attained anatomy exam scores (Year 1 R= -0.594, p< 0.0001; Year 2 R= -0.615, p< 0.0001). There was no relationship between the students’ entry status into medical school (Graduate or High School entry) and their ability to self-assess (Year 1 R= -0.291, p= 0.112; Year 2 R= -0.059, p= 0.709). There was no difference between males and females and their ability to self-assess; year 1 students (R= -0.251, p= 0.174).

Discussion and conclusion
The results presented in this study have demonstrated the ‘unskilled and unaware’ phenomenon in a real-world, higher-stakes and practice related setting. Medical students are unable to accurately self-assess their anatomy exam performance. Poor exam performers were shown to over estimate their ability, and conversely, high achievers underestimated their exam performance. We have found evidence of a strong and significant linear relationship between medical students ability to self assess their performance in an anatomy practical exam, and their actual performance; in a real world setting. Despite the limited ability to self-assess reported in the literature, our results may inform approaches to revalidation which currently frequently rely on an ability to self-assess.

References
Basic Science Education
Threshold Concepts in Anatomy: are we there yet?

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Research into anatomy education is elucidating how students perceive anatomy, how they approach their learning and the factors that influence their approaches. Students who adopt surface approaches to learning often achieve poor examination results associated with an inability to retain information but more fundamentally display an inability to apply knowledge to the solution of practical problems. A deep approach to learning is associated not only with a greater likelihood of examination success but also with a greater understanding of the three-dimensional nature of human form (partly through, we believe, touch-mediated perception) and an increased ability to apply anatomy to the solution of real problems.

Two studies were conducted to explore students’ experiences of learning anatomy. One study administered Learning Inventories (Assist) questionnaires to groups of students \((n=224)\) while a second study employed a qualitative approach using focus groups. Thirty seven students participated in seven focus groups. The focus group transcripts were transcribed verbatim and subjected to nodal analysis through line by line coding. Phenomenographic bracketing was used where appropriate to allow for theory generation. Each node was brought into categories that emerged from the data from a grounded theory approach, these then formed the following main themes; stages of learning, approaches to learning, learning pathologies, assist to learning and institution-specific issues. Exploration of the data highlights that the initial acquisition of knowledge is frequently achieved by techniques that employ a surface-approach to learning (including rote learning and mnemonics). This may not be surprising given the content-rich nature of anatomy as a subject.

Research would suggest that one gateway to students acquiring deep learning in anatomy would be the mastery of key threshold concepts. Threshold concepts can be defined as those which are central to the mastery of a subject (Meyer and Land) without which progress in a subject will be limited. Such concepts once understood are seldom forgotten, they are often irreversible. Examples of threshold concepts in anatomy are the use of positional terminology or the fundamental structures of the nervous system.

Threshold concepts will frequently be integrative and involve interrelationships to other subjects, to clinical conditions or to pathology. Identification of threshold concepts, those subjects found difficult to grasp by students, can assist in more focussed discussion of appropriate core content and if teaching is specifically tailored to addressing difficult issues it can assist students in their learning.

References
Integration of different E-learning resources to cover the same content and provide diversity in teaching resources whilst maintaining continuity across the materials

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Background
There are a range of e-learning resources available to medical students at the present time, ranging from notes (either clinical or based on basic science), to clinical videos and online self-assessment (e.g. multiple choice questions). Written content is not always the most effective learning tool for all students and few websites integrate multiple resources together, that are free-to-access. This creates a lack of continuity amongst different e-learning resources.

Objectives
This project seeks to address this issue by establishing an interactive website which will produce a number of resources, by utilising the increasing availability of newer technology e.g. video-streaming and podcasts. This provides the opportunity to utilise a variety of approaches to cater for a wider range of learning styles.

Methodology
The following resources were implemented to achieve our objectives:

- Producing a comprehensive set of factual notes which are applicable to the curricula of medical students throughout the UK. These focus on clinical medicine and pathophysiology of medicine.
- They will be supplemented by podcasts covering the same material.
- In addition to the recorded podcasts, there are also videocasts: these are video recordings of Power point slide shows, with a voice-over recoding, producing a commentary of the material. This can be likened to an on-line lecture. This is produced using Camtasia 7.0 software.

The content is produced by 10 final year medical students from a number of different medical schools within the UK (including Cambridge University, King’s College London and University College London). This allows the material to be peer-reviewed for errors. Using Joomla web design software, we were able to implement a template for the site, and each contributor could upload materials and edit them very easily.

Outcomes
The main outcome measures of the project will be identifying users’ perceptions of the usefulness and convenience of the website as an educational resource. The use of videocasts and podcasts to teach the same material has proved successful in different hospitals and medical centres for nurses, and this can be translated for use in medical schools. Online questionnaires can generate qualitative data about satisfaction of each individual aspect of the website.

Results
This paper will present the preliminary findings of the study.

Conclusion
This project has integrated a number of resources to produce a more complete e-learning source which is free to access, and provides continuity in the content if students use a variety of resources for learning.

References
Clinical Skills
An exploration of the errors made by newly qualified doctors in acute care contexts

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Background and Purpose
Within the hospital environment, the first responders to acutely unwell patients are often newly qualified doctors. The combination of time pressure, dynamic conditions and heavy information load afforded by such situations provides fertile ground for error.1 Recent work in the field of medical error largely focuses on the identification of cognitive biases 2 and over-confidence3 in the diagnostic processes of experienced doctors. It is unclear whether such evidence can be extrapolated to the decisions made by newly qualified doctors in the unique context of acute care. This study aimed to explore the errors made by these doctors when caring for acutely unwell patients in terms of both action and intention, in order to guide novel educational strategies.

Methodology
In pairs or threes, 38 recent graduates representing seven UK medical schools participated in 18 high-fidelity simulated acute care scenarios. Each scenario was immediately followed by a structured debrief which encouraged articulation of the underlying cognitive processes. Scenarios were video-recorded and debriefs were audio-recorded. Two researchers subsequently identified errors on the video recordings which were coded into broad task-specific categories. Evidence from both the scenario and corresponding debrief was collated to facilitate classification of each error according to Reason’s generic error-modelling system (GEMS).4 Ethical approval was waived by the local ethics service and consent was obtained from all participants.

Results
A total of 238 errors were identified (8 to 20 per scenario). Sufficient evidence was available to classify 167 of the errors according to GEMS. 30% of the errors classified were skill-based slips or lapses, the majority of which related to technical skills such as peripheral venous cannulation. Rule-based mistakes were frequent (45%), particularly in relation to seeking help. Knowledge-based mistakes accounted for 20% of errors, with ignorance of hospital systems and equipment featuring commonly. Only 5% of errors were coded as violations.

Discussion and Conclusions
Despite its limitations, the results of this study have implications for undergraduate medical education. ‘Bad’ rules, such as the requirement to have obtained multiple investigation results before calling for senior help, may originate from the hidden curriculum, and strategies to expose and address them should be sought. The frequent misapplication of ‘good’ rules suggests that an additional facet of Miller’s pyramid5 may be ‘knows how and when’, and that knowledge of hospital systems may impact patient outcome as readily as clinical competence.

References
Stimulated by simulation? The use of endoscopy simulators as a careers advice tool

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Introduction
Dreading that time of year again? Job applications! This time it’s for speciality training posts - potentially the specialty for the rest of your career. How do you make that major decision? Increasing pressures on medical training mean junior doctors may feel rushed into making a decision when applying for specialty training. What guides are available? “So you want to be a Brain Surgeon?” [1] provides a view on working hours, pay and competitiveness of various specialties. Medical schools offer careers advice services, undergraduate clinical attachments impart snippets. Some foundation doctors have “taster weeks” during training. How do you know if you enjoy performing an intervention, which is a major component of the speciality – such as endoscopy – if you have never had a go?

Aims
To allow students to:
1. experience a major component of a Gastroenterologist’s workload - potentially informing future career choice
2. understand that patient safety is paramount and how screen-based simulation promotes this
3. understand that endoscopy can be technically difficult – some individuals may require more training refining skills
4. consolidate their knowledge of upper gastrointestinal tract anatomy

Methodology
Homerton University Hospital acquired a Simbionix GI Bronch Mentor (endoscopy/bronchoscopy simulator) for the purpose of training endoscopy naïve trainees, re-assessment of experienced endoscopists, promotion of patient safety [2] and use in simulation scenarios for junior doctors’ training. From January 2011, 3rd year medical undergraduates from Barts and The London are partaking in a pilot survey to experience endoscopic simulation, during their Gastroenterology clinical attachment. Week one includes a questionnaire assessing if students have had careers advice, if Gastroenterology is a future career choice, and “pop quiz” regarding basic knowledge of oesophagogastroduodenoscopy (OGD). A lecture on OGD is provided, during which students peer mark “pop quiz”. Students are scheduled to attend endoscopy simulation sessions in weeks 2 and 3.

At the end of three weeks students are given a questionnaire assessing if their experience on the simulator has altered their career choice, towards or against Gastroenterology. The “pop quiz” is repeated to assess if knowledge of OGD has improved, and whether the major factor in their learning was the lecture, attending live endoscopy sessions or experiencing simulated endoscopy.

Conclusions
Armed with this experience when application time arrives, students have an extra tool to aid their job selection [3] – perhaps choosing foundation jobs incorporating development of visuospatial skills. Pilot survey and data collection currently ongoing.

References
Evaluating the impact of a mobile clinical skills facility – the pilot use of practitioner stories

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Background
The Scottish Clinical Skills Strategy launched in 2007(1) identified the need to develop a mobile clinical skills facility to ensure both geographic and multiprofessional access to clinical skills education for health care practitioners working in remote and rural areas. The facility was designed to be an integral component of the implementation of the strategy and was operationalised through a Managed Educational Network. This ensured standards of clinical skills educational practice in terms of specialist equipment, debriefing facilities, quality assurance systems, access to evidence-based resources and trained local faculty were similar to those offered to health care practitioners in fixed clinical skills and simulation centres. One of the challenges in offering a facility in this unique context was evaluating its impact in relation to changes in practitioner behaviour and patient outcomes.

Methods
A multifaceted approach was used to evaluate the mobile clinical skills unit over the two year pilot period. Written practitioner stories were collected using a template as part of the evaluation to provide evidence of the impact of changes in practitioner behaviour and to gather indirect accounts of patient outcomes. This was based on the use of patient narratives reported in the literature(2). A purposeful sample of practitioner stories was collected from the six venues visited during the final four months of the pilot. Initial analysis used a qualitative content analysis approach (3). This involved inductive category development which is appropriate when existing literature is limited (4). The stories are being read by two independent experts to identify themes related to behaviour change. Similarities and difference in coding will be addressed through an iterative process.

Results
Ten practitioner stories were collected over the time period and will be analysed to identify common themes in relation to any evidence of behaviour change and patient impact.

Conclusion
Practitioner stories can be a very powerful way of identifying the impact of an educational intervention. Using practitioner stories to determine the impact of an educational intervention may have limitations but there is power of impact in terms of specificity and accuracy of the context in the use of narrative. Areas requiring further study is to develop a reliable evaluative framework in which they can be embedded.

References
Continuing Education
Community pharmacist communication with A8 migrant patients: a qualitative study

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Background
Effective communication by pharmacists is essential to ensure patient safety in terms of the provision and use of medications by consumers. Global migration trends mean healthcare providers, including community pharmacists, increasingly encounter patients who vary significantly in terms of language. Many A8 migrant workers in the UK are not registered with a GP so may be more likely to use the community pharmacy as their first resource for self-care. The aim of this study was to explore if pharmacists perceive communication barriers to the provision of optimal community pharmacy care to A8 migrants.

Methods
This was a qualitative interview study using the grounded theory approach, set in community pharmacies in North-East Scotland, an area lacking experience in dealing more generally with diverse populations. Participant sampling was purposive, stratified by location.

Results
Data were collected from 14 community pharmacists. Participants raised a number of barriers to providing optimal care to the A8 migrant population: communication (information gathering and giving); confidentiality in light of the use of family and friends as translators (no participant was aware of telephone translator services for healthcare providers); the impact of consumer healthcare expectations on communication and the length of the consultation; frustration with the process of the consultation.

Conclusion
Some identified issues were specific to A8 migrants but most seemed pertinent to any group with limited English proficiency (LEP) and reflect those found in studies of doctors and nurses with traditional UK migrant populations. Language barriers impact on quality of pharmacist-consumer communication and, thus, may have patient safety implications. Further research using objective outcome measures, such as consultation recordings, is required to measure the impact of these perceived barriers on the pharmacist-consumer consultation, and to compare consultations across LEP and fluent-English speaking consumers.
Training on handover of patient care within UK medical schools: A questionnaire study

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Background
Much evidence exists to demonstrate that poor handover can directly impact patient safety1. There have been calls for formal education on handover2, but evidence to guide intervention design and implementation is limited3. Despite this, outcomes regarding handover are now being incorporated into many postgraduate training syllabi. It is unclear to what extent handover is being addressed in undergraduate medical education. We set out to determine curriculum objectives, teaching and assessment methods, as well as institutional attitudes towards handover within UK medical schools.

Methods
A descriptive, non-experimental, cross-sectional study design was used. A locally developed online questionnaire survey was sent to all UK Medical Schools, after piloting. Descriptive statistics were calculated for closed ended responses and independent coding of qualitative data was competed, followed by thematic generation from open ended responses.

Results
50% of UK medical schools took part in the study. 9 schools (56%) reported curriculum outcomes for handover. The most common teaching method was ward based exposure to handover care. Other methods used included communication and clinical skills teaching, case based and problem based discussions, reflective exercises and lectures. Analysis of free text responses yielded 4 key themes. 1) Handover is an important education issue, 2) lack of clarity as to when handover education should take place, 3) A current rapid introduction of new teaching methods into curricula to address handover 4) There is a need for formal assessment tools for handover.

Conclusions
Whilst handover was universally felt to be an important education issue, clarity as to which teaching methods to use at undergraduate level is lacking, with schools keen for more published work. Some schools disagree that handover is an undergraduate education issue, although based on evidence in the literature, the authors would dispute this position. Future research is needed to assess innovative teaching and assessment methods being introduced across UK medical schools to address handover education.

References
Is a short e-learning course effective at improving paediatric prescribing skills amongst UK Foundation Doctors? An open label randomised controlled trial

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Introduction
Junior doctors make many prescribing errors and these are the single biggest cause of critical incident reports in UK hospitals, occurring in up to 8% of prescriptions. Mortality and morbidity are known to result, with up to 7000 deaths per year in the USA attributed to such errors. The GMC has recommended improved prescribing be achieved via educational resources, such as e-learning. We designed an e-learning resource for paediatric prescribing and evaluated its effectiveness in a non-blinded randomised controlled fashion.

Method
Using Gagne’s nine events instructions and the CRISIS criteria for continuing medical education as the educational basis, we developed a self-contained, downloadable flash programme consisting of relevant content from the Foundation curriculum. Optional self-assessment exercises, taking 1-2 hours for participants to complete, were included. The content was reviewed by two paediatric pharmacists and piloted before delivery. Volunteer trainees in the North Western Foundation School were randomised for the study, after informed consent, which resulted in 86 in the control and 76 in the intervention groups. All participants were assessed on basic prescribing tasks and completed a prescribing habits/confidence questionnaire. The intervention group completed the e-learning exercise. At 1 and 3 months post intervention all participants were assessed on similar basic prescribing tasks and with the same habits/confidence questionnaire. The intervention group also gave feedback on the package.

Results
Both groups showed no pre-intervention differences in their ability to perform the basic prescribing tasks (66.5% vs. 66.4%, p=0.56). Post-intervention, the e-learning group scored significantly higher (62.7% vs. 78.2%, p<0.0001). Participants reported changed prescribing behaviour, with significantly less prescribing without reference materials in the intervention group compared with the control group (38% vs. 30.1% p<0.05). The feedback on the e-learning exercise was positive with 87% recommending it to be mandatory for Foundation doctors. At 3 months post intervention, the e-learning group still scored significantly higher (68.1% vs. 79.0%, p<0.0001), with improved confidence scores (p<0.0001). There was no significant drop in scores in the e-learning group between 1 and 3 months post intervention (78.0% vs. 79.0%, p=0.80), suggesting retention of skills.

Conclusions
A short, educationally sound self-administered e-learning intervention can significant enhance the paediatric prescribing ability, confidence and practice amongst junior doctors for a significant length of time. The use of such a resource to train doctors prior to commencement of paediatric placements should have positive impact on patient safety.

References
Foundation Year 1 Trainees feel Simulation Training will Enhance learning of Acute Medicine, and Development of Early confidence in Acute training may impact upon Long term Career Choice

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Background and Purpose
The literature suggests a challenging transition from medical students to FY1 doctors, therefore the perceptions of current FY1s were explored regarding learning acute medicine and the role of simulation to support acute training. Evidence suggests that while junior doctors often feel confident with regard to knowledge and skills, they tend to experience difficulties with acute patient management. Human patient simulation, utilizing computerized, physiologically responding mannequins, has become the latest innovation in medical education and high-fidelity medical simulations have been shown to be educationally effective.

Methodology
Two separate video focus groups with FY1 doctors at a district general hospital were run over a six month period in two separate cohorts, with participants derived through non-probability convenience sampling. A DVD was produced by medical photography which was subsequently transcribed and analysed by the lead investigator and a peer observer for validation and cross-linking of themes.

Results
The discussion yielded rich information and the issues highlighted emerged as five themes by drawing on different values and experiences. These fell into skills, personal confidence, learning and simulation, teaching structure and future inspiration.

Discussion and Conclusions
Results revealed that trainees felt there was limited clinical activity aimed directly at becoming FY1 doctors in the approach to medical school finals. They suggested regular simulation sessions would be valuable especially in their final year and first working weeks. FY1s appeared to relish the opportunity for personal, tailored feedback. There was criticism of didactic teaching on the foundation year programme and general dissatisfaction that topics did not appear to flow or always be relevant to their current duties. FY1 doctors are a community of practice whose requirements need to be carefully identified as they transition from undergraduate to postgraduate training, in order to optimize deep learning and improve personal confidence.

A novel concept that arose was many FY1s pointed out that well supported exposure to acute medical jobs early in rotation, was more likely to draw them towards considering a future in an acute specialty such as renal, respiratory, acute medicine or cardiology. Those who had not received this remained fearful of acute medicine, appearing to favour specialties such as general practice, psychiatry and palliative care. Simulation or early exposure to acute medicine may need to be addressed when exploring uptake of acute hospital medicine among junior trainees, as this initial training period appears to be crucial in shaping not only knowledge, skills and performance but also impacting upon the attitudes and future aspirations of FY1 doctors.

References
A low fidelity but high quality e-learning intervention to improve prescribing skills: pedagogical and theoretical underpinning

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Background
Fuelled by availability of computers and comfort shown by learners in using education technologies, e-Learning continues to proliferate. It is clear that e-learning is better than having no intervention at all and at least as good as traditional educational interventions. The key barriers to implementing e-learning interventions include: Financial burden; time restraints of learners teachers and developers; and the hardware requirements to deliver such interventions. It has also been found that e-learning interventions should have a perceived benefit to the learner over traditional methods for them to be acceptable to consumers. Many e-learning consumers expect theory driven design and well-described pedagogy, which are lacking in many of the current approaches of e-learning. We set out to design a simple to use, inexpensive intervention, which needs no specialised software development skills, to improve prescribing skills of junior doctors based on theory and a well-described pedagogical approach.

Methods
Using Gagne’s nine events instructions as the educational basis, we developed an intervention on paediatric prescribing. The intervention was developed within Microsoft PowerPoint that allows the insertion of multimedia and animated text, and offers individualised routes of study. Using an inexpensive programme (Rapid E-learning suite by Wondershare), screen captured demonstrations, videos and self-assessment exercises were inserted and the intervention packaged in a flash format. It was delivered as a self-contained and self-installing programme. This initial process took less than 10 hours to complete. Cognitive load theory (CLT) was then applied to improve the efficiency of learning offered by the intervention. Design principles and strategies of CLT, which was developed in the 1980s, aim to prevent the overload of working memory when presented with new information.

Results
The final package took less than 1 minute to download on an average broadband connection. It took between 1 and 2 hours for participants to complete. The authors will demonstrate the this e-learning package to the audience.

Discussion and Conclusions
The e-learning intervention developed here is an example of a simple and inexpensive tool which allows educators to quickly design high quality e-learning interventions for students or trainees. Clear pedagogical frameworks can be used as the basis for designing such interventions and novel theories can be applied to ensure efficient learning. However, further work is needed to determine the effectiveness and the educational impact of this intervention.

References
An Analysis Of Successful Litigation Claims In Children – An Important Source Of Educational Information

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Background and Purpose
A government report by the former Chief Medical Officer, Professor Sir Liam Donaldson called “An Organisation With A Memory” recognised the many errors made in the British health system and suggested ways in which one could learn from errors. This included learning from litigation cases. The NHS litigation authority (NHSLA) is the body that handles the claims made against the NHS and it receives numerous claims relating to children each year. The aim of this study was to analyse the number of successful claims against the NHS involving children and the nature and outcome of these incidents.

Methodology
A record of claims involving children made to the NHSLA was obtained under the Freedom of Information Act. Cases reported to the NHSLA under the Clinical Negligence Scheme for Trusts from the 1/4/05 to 31/3/10 together with the status of the claim on the 30/9/10 were listed. The number of closed cases in the last 5 years in which the claimant received financial compensation were analysed in relation to the nature of the incident and its outcome.

Results
There were 196 closed cases over this 5 year period. The commonest causes of litigation were medication or vaccination errors, delayed diagnosis of septicaemia, delayed diagnosis of meningitis, delayed diagnosis of unspecified sepsis, extravasation, delayed diagnosis of an anorectal abnormality, delayed cardiological diagnosis, delayed diagnosis of appendicitis, misdiagnosis of epilepsy, psychological/psychiatric effects on the parent(s) following a medical error, delayed diagnosis of a fracture, gastrostomy related errors, and delayed diagnosis of testicular torsion. The commonest outcomes were fatality in 75 cases, unnecessary pain, unnecessary operation, brain damage, scarring, psychiatric/psychological morbidity to the parent(s) and/or child, and amputation in 5 cases.

Conclusion
Delayed diagnosis of severe sepsis is the commonest adverse incident leading to successful litigation and the commonest adverse outcome is a fatality. Knowledge and understanding of common errors in paediatrics should inform training and could help to diminish these adverse events. Similar approaches could be adopted in the other medical specialities.

References
Embedding an Innovative Multi-modal programme for Foundation Trainees as part of their generic teaching programme within a District General Hospital- Simulation Training in Foundation Years (STiFY)

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Background and Purpose
There is increasing evidence supporting the use of simulation in postgraduate medical education. Prior experience of simulation based learning in Foundation Training has been well received and successful. Previously, Foundation Year 1 (FY1) and Foundation Year 2 (FY2) trainees at Whipps Cross University Hospital (WXUH) attended only one single day of simulation training at Barts and the London NHS Trust Medical Simulation Centre. The vision was to utilise the Medical Education Training Suite within our district general hospital to facilitate delivery of a weekly multi-modal programme for both FY1 and FY2 trainees. The aims and objectives of the Simulation Training in Foundation Years (STiFY) programme were to provide a structured simulation-based training programme mapped to the generic foundation curriculum, incorporating both technical skills and developing awareness of the role of human factors within healthcare.

Methodology
The programme incorporates part-task trainers and full immersion high fidelity simulation. For communication skills sessions actors are utilised. Trainees receive forty one-hour protected teaching sessions, comprising of twenty part-task skills and twenty simulation based learning (SBL) scenarios. Simulation scenarios are generated from real clinical incidents and mapped to the foundation curriculum. Debriefing is integral to the process. Quality assurance of the programme is achieved through trainee feedback. Sessions are facilitated by an inter-disciplinary team.

Results
Analysis suggests STiFY is an educational intervention that continues to receive overwhelming positive trainee responses. The majority commented positively on being able to experience scenarios not yet experienced in the workplace and welcomed this opportunity to do so in a safe environment. Findings suggest SBL contributes to reflective practice in many ways. However a key observation was the strong and varied emotional responses towards simulation; this included feelings ranging from exhilaration to humiliation. Despite these emotions, all trainees conceded they learnt.

Discussion and Conclusions
Local delivery of this innovative approach has allowed this initiative to be formally embedded into the foundation teaching programme. STiFY offers regular, frequent, structured simulation training on a weekly basis to all foundation trainees at WXUH. Foundation trainees value the opportunity to reflect on simulated experiences and the use of simulation scenarios derived from real life clinical incidents has been received positively. This study acknowledges that adult learners need emotional engagement to learn. The future will involve identifying ways to measure how this learning is transferred to the workplace.

References
4. Simulation or humiliation? Exploring the contribution of a Simulation Based Learning initiative to the practice of reflection by Foundation Year 1 Trainees. Dissertation undertaken as part of MA in Clinical Education September 2010 by Rachel Gill
The 2011 E-SIM Project: Exploring perceptions and preferences of final year medical students for simulation based learning versus e-learning in relation to their preferred individual learning styles

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Background and Purpose
Simulation Based Learning (SBL) and e-learning are modern learning initiatives, which are gradually being introduced nationwide into medical education. This study explores how these diverse modern learning strategies are perceived by medical students with regard to the various components of their undergraduate curriculum, whilst taking into account an assessment of their Preferred Individual Learning Styles (PILS).

Methodology
The first of two successive cohorts of fifteen final year medical students rotating through our teaching hospital were voluntarily enrolled into the study through non-probability convenience sampling and all completed a learning styles questionnaire. Four e-learning and four parallel SBL modules were created aiming to fulfil identical learning objectives and were delivered over a four week block, as one pair per week, covering four core topics: chest pain, shock, ECG interpretation and arterial blood gas interpretation. Participants completed perceptions surveys at the start, mid-point and end of the four weeks regarding their preferred learning strategy, enabling triangulation over time. After each module, participants completed a satisfaction survey. All surveys were Likert scale based, including free text sections to enrich and qualify responses.

Results
Data from the first cohort yielded rich information about which learning strategy is favoured for teaching and learning of both acute topics and data interpretation. This does not appear to be related to PILS. Preliminary analysis demonstrates that e-learning appears to be the preferred educational strategy for data interpretation such as ECGs or arterial blood gases. Simulation based learning emerged as the preferred educational strategy for acute medicine topics such as chest pain and shock.

Discussion and Conclusions
It was anticipated that educational strategy would be aligned with PILS of undergraduates, for example activists preferring SBL for all topics. However the data appears to indicate that topics within the curriculum require matching with the most effective educational strategy, rather than matching of the educational strategy with the undergraduates’ PILS. This study recognises there is a need for a multimodal approach in learning strategies available for undergraduates to address different curriculum components. This appears to over-ride PILS, although these should be acknowledged. This study is explorative in nature and we hope it will go some way towards highlighting what educational strategies are most productive for final year undergraduates, thus guiding educationalists towards the most effective curriculum design and delivery, encompassing all learning styles. The E-SIM Project is currently being delivered to the second cohort.

References
Attracting General Practitioners to rural locations in Australia: Benefits of the Prevocational General Practice Placement Program (PGPPP)

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Australian medical workforce planners continue to grapple with the challenges in providing a sustained, engaged, and ongoing medical workforce in rural and remote parts of Australia. Queensland, as one of the larger states in Australia, is at the forefront of this discussion. Queensland Rural Medical Education Inc (QRME) is one of seventeen General Practice Training Providers in Australia and is the only Provider that focuses solely on rural practice. QRME is actively pursuing engagement with the medical workforce to assist in the development of a sustainable rural medical workforce that develops solid succession planning strategies and is able to be actively involved in medical education across all aspects of the continuum.

The Prevocational General Practice Placement Program (PGPPP) is one of the mechanisms QRME is utilising to achieve these goals. PGPPP is funded by the Australian Department of Health and Ageing and provides junior doctors with professional, well supervised and educational general practice placements as part of their training. PGPPP has three aims: 1) build junior doctors’ confidence, exposure and interest in working in outer metropolitan, regional and rural areas through supervised general practice placements of varying duration approx 10-12 weeks; 2) increase understanding of the integration between primary and secondary health care by junior doctors; 3) provide an experience that will encourage junior doctors to take up general practice as a career.

This paper presents a description of the placement program in a rural setting as it is organised at QRME, including its rationale, aims, objectives and strategies; a discussion of the practical roll-out of the program across a vast geographical area, including support mechanisms, logistics and lessons learnt; and analysis of the evaluation of the program by the junior doctors themselves, including the difference it has made in their decision making framework to enter General Practice and / or to specifically to focus on rural medicine.

Across 2011, the QRME PGPP Program will utilise the services of six feeder hospitals across the state of Queensland, twelve Practice sites and will place fifty-five junior doctors for a ten week rotation. Findings from both the mid-year evaluation of the 2011 program and the evaluation of the 2010 program will be presented as part of this paper.
Centrally organised foundation doctor led teaching is an effective method to increase bedside teaching, with perceived advantages, from a learner’s perspective, over senior staff

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Background and Purpose
To medical students, bedside teaching is arguably the most favoured, most in demand form of teaching, but also least well delivered. Students like it because it is patient-centred, and puts knowledge in context. However, it is on the decline. This reduction in exposure to a critical aspect of training may be partly responsible for declining clinical skills of junior doctors. Junior doctors are important and effective teachers, with potential benefits over senior staff such as availability, and better appreciation of the learner’s perspective. The aim of this study was to investigate the perceptions of final year medical students concerning a Foundation doctor-led bedside teaching programme.

Methodology
Web based forums have been used to organise foundation doctor-led prescribing tutorials in South-East Scotland, and we applied this model to organised bedside teaching. Foundation doctors were invited to attend a teaching training symposium, comprising three sessions discussing methodology, and two of observed teaching. Doctors successfully completing the event delivered small group bedside teaching, advertised through a web based forum, to final year students. Anonymised questionnaires were issued to all students, evaluating the session, and assessing benefits of junior compared to senior doctor led teaching, on a 5 level Likert scale.

Results
19 bedside teaching sessions were carried out by 7 foundation doctors, delivering tutorials to 42 students. 95% of students agreed or strongly the sessions improved their confidence in clinical examination, 94% agreed or strongly agreed that it provided a useful clinical experience that they would otherwise not have received. In comparison to senior staff, 88% agreed or strongly agreed junior doctors were more approachable. 79% agreed or strongly agreed they covered more relevant material to being a good junior doctor. 54% strongly agreed or agreed that junior doctors were more trustworthy in their knowledge of examination, with 29% being neutral. 38% agreed or strongly agreed that they were more confident teachers, with 40% being neutral. 45% agreed or strongly agreed that junior doctor led teaching is overall of higher quality, with an additional 50% believing it is at least as good.

Discussion and Conclusions
Junior doctors are perceived as more approachable, covering more relevant material from the learner’s perspective. With adequate training, this group could effectively increase bedside teaching, with potential advantages over senior staff, and no perceived reduction in overall quality of teaching.

References
Are podcasts useful in postgraduate medical education?

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Introduction and Aims
Digital media audio files or podcasts allow content to be delivered at the user’s convenience and often in mobile format. The Royal College of Physicians offers a postgraduate membership examination (MRCP) in three parts, the third part being practical, the Practical Assessment of Clinical Examination Skills (PACES). The aim of this study was to pilot the use of podcasts in delivering high quality preparation for the MRCP Paces exam to the 600 core medical trainees (CMT) in the London Deanery, understand the technological limits, and assess the needs of core medical trainees when using the technology.

Methods
Twenty audio-only podcasts were created during 2009 together with a commercial organization (Dr Podcast) and offered free to all doctors in London CMT posts. All trainees were emailed twice to offer the podcasts, requiring completion of a survey. A second survey was sent a month after each PACES exam.

Results
Data was obtained from 268 survey respondents (63% CT1, 32% CT2). Only 6% had taken the exam previously. The majority of candidates were revising with textbooks (76%), commercial courses (54%), question books (30%), online question material (30%), and vodcasts (20%) with only 11% planning to use podcasts. 26% of respondents had previously used podcasts for medical training. Prior use had been during medical school finals or for MRCP part 1 and 2. 92% of respondents had a home computer. 44% had used streaming audio previously, 39% accessed audio downloads and 45% on-demand TV regularly. Only 5% did not have an MP3/ipod/mobile web linked device. 71% respondents strongly agreed or agreed that the podcasts had been good, useful and novel. Most had listened at home (68%) or while commuting (58%) and few while doing other activities eg at a gym. No one used them at work or during night on-calls. Users listened to each podcast on average 3 times. All felt they were useful for PACES. None had any technical problems.

Conclusions
There was a good uptake of the podcasts amongst CMT trainees in London (who are technologically capable) and the responses were universally positive. Users felt they were a novel idea and useful for PACES preparation. We are unable to determine whether they have improved pass rates, and they are unlikely to replace face-to-face clinical teaching.
The social and educational impact of hospitalisation on children – attitudes and experiences of medical, nursing and education students, teachers and doctors

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Background and Purpose
Each year over 5% of children aged 12 – 15 years in Scotland are inpatients. There is a legal obligation to provide education as well as evidence that doing so aids reintegration. A study investigating the experiences of children and their parents / carers in one Scottish children’s hospital found the lack of ICT on the ward caused social and educational isolation. Respondents also identified reintegration problems, which may be eased by good communications with therapeutic staff. This study captures the experiences and attitudes of doctors, teachers and medical, educational and child nursing students in one health authority.

Methodology
A questionnaire of closed and free text questions was administered, wherever possible on paper, in lecture time to Phase 2 and 3 medical, second year child-nursing and honours education students. An online version was used for some Phase 3 students due to access difficulties. A similar paper questionnaire was administered to paediatric doctors in the hospital and teachers at schools named in the previous study.

Results
Hospitalised interruption to own learning was reported by 14% medical, 17% nursing and 29% educational students. Involvement in a patient’s education was reported by 50% non-training and 25% senior registrars but no junior registrars. The majority of all groups except the paediatricians erroneously thought the children had access to mobiles and the web, communication channels rated very highly by children. This did not change significantly between Phase 2 and 3. Although all groups felt continuing education normalised the experience (rated 5.1 on 6 point Likert), only teachers felt prepared for their involvement (5.0 compared to 1.8 – 2.0). Many were unaware of the hospital education service.

Discussion and Conclusions
Although all groups recognised the importance of continuing contact with school peers, the marked difference in knowledge about technology availability and ignorance of the hospital education service suggests a need for further education. All Scottish medical schools are committed to increasing student awareness of effects of illness on patients’ daily lives, both short and long term. In addition to individual subject inclusion, this paper proposes an interprofessional intervention involving medical, nursing and education students. It also recommends that interprofessional workshops be held at the hospital during INSET (In Service Educational Training, school teachers’ continuing professional development) days where doctors, nurses and teachers can learn about each others’ roles, problems and facilities available at the hospital.

References


Learning with Stan: Medical Students’ views on two methods of simulation teaching

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Background
There is good evidence that simulation is superior to didactic lectures when teaching the management of critically ill patients¹. Studies in simulation teaching have shown high levels of satisfaction among medical students², particularly in preparation for Foundation Training³. Currently, there is insufficient literature on how best to deliver these simulator sessions within a set time period. This is particularly relevant as clinical teachers are often faced with time constraints. In this study, we sought to identify the most effective method of running simulation sessions based on students’ feedback.

Methodology
Final year medical students experienced two styles of simulated learning, each lasting 50 minutes. One style incorporated a “real time” scenario of 40 minutes duration. Students performed tasks as if they were attending to real patients, including inserting cannulas and taking bloods. The session ended with 10 minutes of feedback. The same students then participated in a “condensed” simulator session the following week. This involved a 10 minute simulated scenario followed by feedback lasting 40 minutes. In both sessions students were asked to evaluate their learning in the following areas: communication skills, teamwork, practical skills and value of feedback in changing clinical practice.

Results
Students found both types of simulation styles equally useful for global learning of acute care scenarios. They felt that feedback from the condensed session encouraged reflective practice, thereby allowing them to learn from their clinical mistakes. The real time simulation provided more opportunities to develop communication, teamwork and practical skills. These are preliminary results and we are continuing to collect data as we run more sessions.

Discussion
There are no papers comparing real time versus condensed time simulation. This study suggests that both styles are useful for achieving different learning goals. Real time simulation achieves high validity and encourages greater development of clinical, teamwork and communication skills. Condensed time simulation allows for more reflection. This means students are completing the Kolb experiential learning cycle⁴ which is more likely to change professional practice⁵. Therefore, we expect our study to show that the two styles of simulation teaching complement each other by emphasising different areas of learning. We suggest that clinical teachers should vary their styles of simulation teaching to maximise students’ learning.

References
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⁵Issenberg SB, McGaghie WC, Petrusa ER, Gordon DL and Scalese RJ. Features and use of high fidelity medical simulations that lead to effective learning: A BEME systematic review. Medical Teacher. 2005; 27: 10-28
Interspecialty Learning: Breaking down the barriers between primary and secondary care

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Background and purpose
It is well recognised that barriers can exist between doctors of different specialties. This is of particular significance amongst general practitioners (GPs) and hospital physicians who may be responsible for the long term management of patients with complex, chronic diseases. Consequently, successful interspecialty learning activities may offer significant benefit in terms of improved team-working skills, understanding of other doctors’ roles and ultimately more effective patient care. Knowledge of NHS management structures is important to trainee UK hospital doctors and GPs. It is often believed difficult to teach this topic in an engaging way.

Methodology
74 general medicine and GP trainees attended a teaching-day entitled “NHS Management Structures and Service Re-Design”. 6 mixed groups were asked to re-design a service, in areas including diabetes and heart failure. Trainees prepared presentations aimed at “selling” their new evidence-based pathway to a commissioning panel. Advisors included expert patients, GPs and consultants, and trainees were also encouraged to use the Internet. Presentations were conducted in a light-hearted manner, with prizes for the best ideas. Pre- and post-course questionnaires were completed, using the 5-point Likert scale (5 = strongly agree).

Results
Analysis revealed a significantly positive view upon the experience. Comments included “Revolutionary way of learning”, “A thoroughly enjoyable day. An excellent approach to teaching a relatively unfamiliar, drab subject” and “Overall the training day has helped me to understand how both primary and secondary care can be integrated for the interest of the patient”. Quantitative data supported this. Trainees agreed they would recommend this day to a colleague. Mann-Whitney analysis confirmed no significant difference between the 2 groups (p = 0.87 μ = 4.0). There was a significant, perceived increase in understanding of primary-secondary care interface and NHS management structure (p < 0.001). It was felt the day helped improve teamwork skills (μ = 4.1). Most striking results described trainee views on interspecialty learning. They agreed it was useful to have combined groups (μ = 4.3). In fact, the day led to a potential shift in attitude towards combined teaching. After the event, trainees believed combined teaching to be more worthwhile (p < 0.001).

Discussion and conclusion
This study demonstrates the potential of interspecialty learning to modify trainees’ knowledge, skills and attitudes and illustrates an innovative framework for its implementation. It is likely that inclusion of similar educational events on a regular basis within the postgraduate medical curriculum will reinforce these benefits and ultimately enhance interspecialty collaboration and patient care.

References
Diversification: The RRHEAL Education platform; “At distance” delivery for remote, rural and island healthcare teams

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Background and Purpose
The Remote and Rural Healthcare Educational Alliance (RRHEAL) 1, was developed by NHS Education for Scotland (NES) in response to extensive consultation and endorsement by the Scottish Government in 2008. Delivering for Remote and Rural Healthcare (2008)2, states access, rural specific content and support for remote and rural learners as the key issues to be addressed by RRHEAL. RRHEAL provides assistance to remote and rural NHS Boards and is a linking force between healthcare services and education providers. Access to contextually appropriate education is not only key to ensuring continuing and efficient rural clinical service delivery but also impacts on the recruitment and retention of skilled healthcare teams to provide such care (3).

Methodology
Using the combined expertise of RRHEAL and the Knowledge Services Group (NHS Education for Scotland), the RRHEAL education platform was developed and launched in November 2010. This platform hosts open source educational content for mixed disciplines in the specific context of remote, rural and island healthcare delivery. The platform has a multi professional focus and has an emphasis where possible, on competency based educational delivery. This platform functions as a host site, supporting RRHEALs model of distributed education. The RRHEAL model may be defined as education distributed to differing specialist groups, to differing geographical locations and in diverse forms for access at varying times.

Results
The platform actively supports the philosophy of at distance or distributed education. The platform has been well received. Foundation or “core” pieces commissioned by RRHEAL are supporting progression of this inclusive methodology, including the VC education guide and a Quality Assurance Guide for distributed education. These items have stimulated significant interest and are now being embedded into local practice, in addition to being useful cornerstones when lobbying for increased delivery “at distance”.

Discussion and Conclusions
The RRHEAL education platform is generating interest, with Boards actively pursuing developing as well as hosting content in partnership. This is key to inclusive delivery within the context of remote healthcare provision. But in times of economic austerity, a model of at distance education can also demonstrate an economy of scale, have high utility and are transferable to larger population centres out with the context of remote, rural and island Health Boards.

References
Strategic Diversification: RRHEAL Quality Assurance Guidelines for Distributed Educational Delivery

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Background and Purpose
The Remote and Rural Healthcare Educational Alliance (RRHEAL) 1 was developed by NHS Education for Scotland (NES) in response to extensive consultation and endorsement by the Scottish Government in 2008. Delivering for Remote and Rural Healthcare (2008) 2 states access, rural specific content and support for remote and rural learners as the key issues to be addressed by RRHEAL. Developing alternative methods of educational delivery are of significance to remote and distributed workforces, when “mainstream” routes of educational delivery can be inaccessible or unreliable (3). RRHEAL actively promotes inclusive distributed or “at distance” educational delivery, assisting remote healthcare teams meet clinical service as well as ongoing professional and developmental needs. Many educational providers are finding diverse and progressive ways to deliver. In addition, the current financial climate enhances the need for diverse modes of educational delivery, particularly in the context of this highly dispersed workforce.

Methodology
RRHEAL commissioned the Quality Assurance (QA) guide for distributed education (4) to ensure that the diverse and highly inventive ways that educators are developing tools for remote healthcare teams are also appropriately quality assured and in so doing contribute to a developing evidence base within this sphere. The guide was developed in collaboration between the RRHEAL, University of Dundee and the Clinical Skills Managed Educational Network.

Results
The RRHEAL QA guide for distributed education is a core guide with simple language and specific themes delivered in “bite sized chunks”.

This guide takes users through an introduction to quality assurance (applied to health care education) and then details content relating to;

- Work based learning
- Small group teaching
- E-learning, m-learning and social networking
- Video conferencing
- Mentorship and supervision in remote and distributed education
- Assessing remote and distributed learning
- Evaluating the impact

Throughout the guide, activities and tools prompting local application are interspersed to help embed the guide into clinical practice.

Discussion and Conclusions

The QA guide for distributed education supports the appropriate and considered growth in “at distance” education, which is key to inclusive delivery for remote healthcare teams. This guide is transferable to delivery in higher population centres thus demonstrating a high utility in differing contexts.

References

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The Development of a Pre Hospital Mental Health Course for Remote and Rural Practitioners

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Objective
Rural and island healthcare staff in Scotland need the ability to manage patients experiencing Mental Health crisis. In order to ensure that practitioners in remote and rural areas have the necessary skills RRHEAL were asked to development a pre-hospital mental health care course.

Method
Several mental healthcare experts were asked to express their opinion on the essential content of a pre hospital mental health course. This stakeholder review informed the development of a survey to identify the priority areas for training. The first round of the survey process involved an expert group of 16. The second round was a survey of over 300 remote and rural practitioners who were involved with BASICS’s Scotland.

Results
The stakeholder review identified content which can be summarised under the following topics:-

• Risk Assessment.
• Patient Assessment.
• Crisis management.
• Handling difficult situations.
• Engagement skills.
• Mental health law.
• Management of retrieval.
• Pharmacology.
• Theory and classification of mental illness.
• Understanding your network.

The 1st round survey generated 16 responses and the second round over 80 responses. The 1st and 2nd round surveys identified these topics as being important.

Conclusion
Using blended learning techniques this course will encourage a contextual approach to user needs, specifically teaching generic mental health care skills to staff who are often working single handed and required to respond appropriately, locally and safely as they work towards achieving the National Mental Health crisis standards 2.

References
Curriculum Planning
GP placements – exploring capacity and increased opportunities for aspects of TD09 associated with social determinants of health

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Background
Approximately 15% of core MBBS curricula are the responsibility of Primary Care Departments with General Practices providing placements and teaching. Two developments now suggest this could increase. The publication of Tomorrow’s Doctors 2009 (TD09) has learning outcomes for students with a substantive focus on areas associated with social and behavioural determinants. The general practice setting offers good opportunities for such learning outcomes. Patient care continues to see a shift from the hospital stay to care in community, particularly as the prevalence of non communicable disease increases. For students, access to patients suitable for their learning needs has been considerably reduced in the hospital context. This paper explores the practicalities of increasing the community based teaching and provides feedback on a pilot case study for further discussion.

Method
A pilot was designed to help students consolidate and review their learning towards the end of the penultimate year. The identification of two additional days available offered the opportunity for selected students to use their GP placement to arrange additional access to patients, under supervision. Students were given a “menu” of 12 Learning outcomes (LO) with the option to agree, with their GP teacher, 4-5 LOs. This “menu” was based on data from multiple sources indicating what is often omitted, what is possible in General Practice and what final year students would have appreciated. Four practices and 20 students agreed to participate in the pilot in May 2011.

Results
The results will be presented based on student focus groups prior to their end of year exams, interviews with GP tutors and their teams at the pilot practices and workshop data at dissemination conference in June for the wider GP teaching network with regard to feasibility. In addition, student attendance data and comment will also be analysed.

Discussion
To date the pilot has been seen as acceptable and practical, increasing student opportunity with patients to consolidate and review their learning, taking responsibility for identify and managing their learning needs, yet minimal demands on the placement practices or changes to curriculum. It should reduce the need and pressures for students to use skills centres and simulation and help students approach exams with greater confidence and more skills to manage their learning during final year “apprenticeship” placements.
Developing an undergraduate curriculum in geriatric medicine for a medical school in northern Iraq

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Introduction
Ageing of the population is an issue of global concern. All doctors, with the exception of paediatricians, will have contact with the elderly, therefore being familiar with key concepts of geriatric medicine is crucial. Almost all developed countries have incorporated geriatric medicine into their undergraduate medical curriculum. However, the developing countries, including Iraq, have not adapted this approach yet. In 2006, we conducted a workshop in the college of medicine of Hawler Medical University (HMU) in Erbil, Northern Iraq. The majority of the participants were in favour of introducing geriatric medicine into the undergraduate curriculum. We therefore established a working group incorporating Kurdish geriatricians based in the UK and senior physicians working in HMU to take the matter forward.

Methodology
Using a situational analysis model, we looked at various internal and external factors and potential constraints that might influence the design and implementation of an undergraduate curriculum in geriatric medicine.

Results and discussion
Based on the situational analysis we identified a number of key points in defining and organizing the important elements of the curriculum. Taking into account the existing undergraduate curriculum at the college of medicine in HMU, it was clear that a horizontal integration of a course/ block in geriatrics would be most appropriate. To match the rest of the curriculum and also in the light of available resources, we feel the emphasis would have to be on accusation of knowledge, combining didactic teaching with clinical experience. Although there is no geriatric department within the relevant college of medicine or the hospitals in Kurdistan, it is feasible that the course/ block would be successfully delivered with support from the geriatricians involved in the design of the curriculum. Assessment of the students would be in line with methods used throughout the undergraduate medical curricula.

Conclusion
We explored the feasibility of introducing a geriatric component into the undergraduate curriculum of a medical school in Northern Iraq. It is hoped that with successful implementation of this curriculum, it could be rolled out to other medical colleges in Kurdistan region and in Iraq as a whole.
Competency Mapping in Quality Management of Geriatric Medicine training – A Survey of Trainees in the North-Western Deanery

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Background and purpose
The 2010 Geriatric Curriculum was implemented to comply with JRCPTB requirements and the new GMC standards. New core syllabus and optional higher level grids outline the desired competencies by completion of training. An important element of any programme development is its evaluation so training programme directors can ensure their training placements can fulfil the curriculum’s requirements. The analysis of medical training is a complex endeavour requiring information from multiple sources and through multiple methods. The North-Western Deanery, from Barrow to Stockport, organises its Geriatric Registrar posts into nine tracks on geographical proximity. This design could lead to inequality in training opportunities. We used “curriculum mapping” to determine trainees’ views on whether the 2010 Geriatric curriculum competencies can be achieved within the current track design of the North-Western Deanery training programme for Geriatric Medicine.

Methodology
The mapping process was created by extracting each syllabus item from the core, special topic and optional higher level curriculum grids. Trainees were asked to judge achievability using a red/amber/green system.

Results
There was opportunity to achieve all the competencies in at least one hospital in the region but no competency was found to be green at every hospital (see Table 1). Generic geriatric competencies were found to have ample opportunities to achieve competency in over 50% of placements. ‘Problematic’ competencies included: continence, tissue viability, community practice, palliative care. The higher specialty grids were challenging with only one individual competency being easily accessible. The ability of each track to provide the opportunity to achieve competencies was very variable.

Discussion and conclusion
Overall trainees felt the North-Western Deanery provides adequate training opportunities to achieve the core syllabus competencies. However there was wide variation across the region and higher speciality competencies were problematic. This process is formative for key stakeholders (trainees, trainers and training programme directors), equipping them for planning and organisation of training. It has highlighted areas of the curriculum which are more challenging to achieve. Trainees can use the maps to assist them in their ARCP preparation through a more explicit understanding of the curriculum and training needs. Future studies, triangulating trainer and trainee views will serve to enhance the validity and reliability of this assessment tool.

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Table 1: An Excerpt of Trainee Perceptions of Achievability of Competencies in the North-Western Deanery
Relationship between motivational factors and selection of student selected components [SSCs] in undergraduate medical students

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Based on recommendations of the UK GMC’s document on undergraduate medical education (GMC, 1993), student selected components (SSCs) increasingly comprise up to one third of undergraduate medical curriculum content. SSCs aim to facilitate and/or encourage (a) greater exploration of core curriculum topics which are of particular interest to the student (b) research skills (c) exploration of subjects and experiences not part of the core curriculum (d) opportunities for individualized personal and professional development.

The present study aimed to examine in medical undergraduates [across a four year period; 2007-2010] the motivational factors which would influence SSC choice, with a view to (a) identifying relationships between categories of available SSCs and motivations for SSC (b) examining whether these relationships change across the degree years (c) assessing whether these relationships are differentially observed in direct entry vs. graduate entry undergraduate students. As part of the SSC registration process, students were required to rank their first choice of SSC and provide a written statement [length unspecified] indicating their motivation for this selection.

Based on these data, six primary motivational factors were identified: correction of perceived deficits; genuine interest in subject and wish to study in more depth; career strategy; exam strategy; taking a chance. A complex pattern of relationships emerged in relation to matching of motivational factors with SSC subject categories; for example, selection of SSC subjects related to research skills was strongly associated with the “career strategy” motivational factor.

Additionally, both the frequency of specific SSC subject category selections, and the selection-motivation factor relationship, was found to be highly dependent upon year of study. Finally, this study revealed significant differences between direct entry vs. graduate entry medical undergraduates with respect to SSC subject category selections, motivational factors, and the relationship between both elements. This study provides an important insight into changing patterns of SSC selection in medicine, as well as accompanying motivational factors, across the undergraduate years.
Junior doctors’ knowledge, experience and attitudes towards prescribing errors.
The PROTECT (PRescribing Outcomes for Trainee doctors Engaged in Clinical Training) study

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Background
Patient safety is one of the biggest challenges currently facing healthcare. Despite the introduction of the WHO Patient Safety curriculum for undergraduate medical students, it is not yet clear how education can be used to improve patient safety and reduce error. One area which has received significant recent attention is prescribing. It is well recognised that prescribing errors are complex and may require a range of interventions. In order to identify possible targets for educational intervention, we have conducted a pan-Scotland programme which investigated 1. the prevalence and perceived causes of prescribing errors amongst Foundation Year One (FY1) and 2 (FY2) doctors (observational study), and 2. FY1 and FY2 doctors’ knowledge of, attitudes towards and experience of prescribing errors (a cross-sectional self completion survey). This paper reports the survey findings.

Methods
The questionnaire was developed systematically using an adapted version of the questions in Michie et al.\(^1\) in interviews with a diversity sample of 23 FY doctors. Additional questions were based on the Human Error Theory\(^2\) and Bandura’s Social Cognitive Theory\(^3\). The questionnaire was reviewed, piloted and distributed to FYs at seminars organised in the eight hospitals participating in the observational study.

Results
More than 90% of FYs who attended the sessions completed a questionnaire (n=509). The analysis is ongoing but full results will be reported at the conference. Early findings indicate that the majority of respondent gave details of errors they had made and witnessed. Most errors reported resulted from slips/lapses and were errors in prescription writing rather than in decision making. The majority of errors did not reach or cause harm to the patient. Doctors identified many contributors to prescribing errors, including the work environment e.g. being interrupted, pressure from other staff, task factors e.g. lack of familiarity with medication and patient factors e.g. complexity. If FYs make a prescribing error, they are confident it will be picked up before reaching the patient.

Discussion
This study provides information which can be used to inform teaching patient safety and pharmacology/prescribing to both undergraduate and postgraduates. Whilst education is only one method of reducing error, the data generated from this study will be used in the development and delivery of theoretically underpinned interventions to reduce the incidence of prescribing errors. One early possibility is training in assertiveness and saying no to prescribing requests. Another would be techniques for dealing with interruptions and distractions when prescribing.

References
International Medical Education
Physician Scientists and their career in Japan

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Background and Purpose
Physicians Scientists (individuals with an MD degree who perform medical research as their primary professional activities) are invaluable as they can promote basic research based on a clinical awareness of issues. However, in recent years, there have been indications that the number of medical school graduates aspiring to careers as physician scientist has been decreasing. The aim of this study is to discuss the careers of physician scientists by utilizing physician registry data in Japan. We made a cross-sectional analysis of annual shifts in the ratio of physician scientists to all physicians and shifts in their type of works.

Methodology
This study examines the career paths of physician scientists. Using the physician registry data in Japan from 1996 to 2008, the study aggregates data on changes in the ratio of physician scientists to registered physicians, changes in the composition of physician scientists by gender and by length of time that medical licenses are held, and on places where new physician scientists are coming from and places where exiting physician scientists are going to as indicated in two consecutive notifications.

Results
Between 1996 and 2008, the number of physician scientists had not changed dramatically. But if looking at the number of years that physician scientist had been registered, there was a noticeable reduction in the group of physicians with few years of experience. Looking at the proportions of physician scientists who continued their vocation between 1996 and 1998, and between 2006 and 2008, overall, the rate was similar. However, the retention rate for the group of physician scientists who had held a medical license for 5-19 years had decreased in recent years more than the other years groups—evidence of a fall in the retention rate for young physicians.

Discussion and Conclusions
Securing physician scientist has become a major challenge internationally as well. Previous research has suggested possible causes such as the soaring tuition costs for medical schools, the problem of accessible research funds, and the issue of salaries. It has also suggested such measures as conveying the attraction of basic research to medical students at an early stage, for instance, through the establishment of MD-PhD courses. Similar measures could also be effective in Japan. Also, with the recent increasing number of female researchers, creating better working environments for women is also considered to be important.
International Medical Students: factors that enhance and inhibit learning

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Background and purpose
Medical schools hope to widen the selection of applicants to medicine to reflect the national profile of ethnic and social diversity. This approach has implications for the curriculum offered and the support services available for students from varied backgrounds. Little research has been done specifically on international medical students’ educational expectations, experiences and needs. Some studies have shown that these students struggle to attain the same standard of competence in communication skills as domestic students unless specific intervention and help is offered during their training.

This research aims to identify modifiable factors which affect learning experiences and outcomes for international medical students by considering the educational environment including:

- the medical curriculum
- learning and teaching approaches
- pastoral and practical support
- remedial and supplementary educational support

Methodology
Institutional ethical approval was obtained before small groups of international medical students in Years 2-6 were recruited to participate in semi-structured interviews to explore their current learning experiences and use of Student Support Services. Fifty-seven students from fourteen different countries took part.

Results
Several key themes have emerged: language and cultural issues (including alcohol), ‘academic shock’, marginalization and the lack of clear expectations in the learning and teaching environment. Both formal and informal support services are used to navigate the years of medical training. Identification of common topics raised provides insight into generic modifiable factors that can improve the learning environment and support offered.

Discussion and conclusions
Globalisation of medical education and the increased mobility of doctors make this research particularly relevant. Points for discussion include:

- How we encourage and develop ‘cultural competency’ among staff and domestic students.
- How we might provide remedial help and tuition at key points in the curriculum to enhance communication skills and use of idiomatic language in particular specialties.
- What participants have found useful in their own institutions to make the learning environment for international medical students effective and supportive for their needs.

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Tailoring Registrar Rural and Remote General Practice Education for International Medical Graduates

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Background and Purpose
While the proportion of International Medical Graduates (IMGs) working in rural and remote general practice in Queensland in some areas is over 50%, most are not fully vocationally registered. IMGs working in private practices have little time to undertake an assessment of their needs and to source appropriate education activities. They have conflicting priorities from their employers, their communities and their families, particularly for those in solo practice.

Unlike Australian graduates who are a generic cohort in terms of their training and experience, IMGs have many levels of experience and knowledge in General Practice. Providing appropriate educational activities for this group must be based on the individuals’ skills and knowledge to ensure a greater possibility of achieving Vocational Registration. The Queensland Rural Medical Education (QRME) pilot IMG education program is currently being delivered over 12 months. Initial needs and skills assessments of IMGs on the program were completed at the onset. From this point assigned Medical Educators assisted the IMGs to complete individualised learning plans for the year. This paper reports on the ongoing assessment of the IMGs’ progress through the program, including key skills development areas, specific rural issues of professionalism, ethics, Indigenous health training and culture, communication, Medicare, self care, personal financial management and exam preparation.

Methodology
The educational approaches taken during the program include self assessment, one-on-one mentoring, individual reflective exercises, online modules, group case scenarios and reporting back, seminar discussions and group educational workshops, the latter at three points in the year covering key content areas which relate to college curricula and specific identified needs of the participants. One particular slant of the program centres on three components of medical professionalism which are also assessed: trust, confidentiality and social justice. Evaluation data has been gathered through comprehensive personal interviews, group feedback sessions and questionnaire responses to skills assessments completed by participants and Medical Educators.

Discussion and Conclusions
Evidence to date indicates that the tailored educational program for IMGs has been successful in preparing participants for rural and remote general practice in the first instance as a general practice registrar. The specialised IMG educational stream has allowed the participants to learn and develop in a nurturing environment which is tailored to their needs, increased their skills levels and given them increased confidence as general practitioners in Australia. Consideration is being given to the incorporation of key components of the specialised training into the QRME education program on an ongoing basis.
Cultural Competency Training – Does a standard Cultural Competency programme work with a diverse group of Registrars?

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Background and Purpose
In New Zealand one of the additional provisions for health regulatory authorities introduced in the Health Practitioners Competence Assurance Act 2003 is the setting of standards of cultural competence. The concept of ‘cultural competence’ was developed to better meet the needs of New Zealand’s increasingly culturally diverse population, and in response to the growing evidence of disparities in the health of Maori (New Zealand’s indigenous population)

In 2009 a standardised format (scaffold) for delivery of the weekly seminar programme was established for the training of first year General Practice trainees (GPEP1 registrars). At the end of 2009 each of these scaffolds was reviewed and a more specific Cultural Competency task set on each topic for discussion in the seminar day. The purpose of our research was to see if registrars recognised and attended to these Cultural Competency tasks, how it changed their practice and was there a requirement for more or less.

Methodology
Cultural competency training was delivered by GP Medical Educators as part of day-release seminars in 11 different regions. A specific question on the value of this training was added into seminar evaluations. Responses to this led to a more detailed questionnaire being sent to all GP Registrars at the end of their GPEP1 year.

Results
Of 110 registrars, 44 returned their Cultural Competency Questionnaires. The ethnic mix of these registrars was self reported as NZ European 15, European other nine, Maori two and other 18.
The majority of learning was achieved through small group discussion and role play. Reflections on how it changed their practice were around communication skills and more confidence to discuss the patient’s culture but occasionally no change.

61% stated there was enough cultural competency training. 16% stated they would like to learn about other cultures besides Maori.

Discussion and Conclusions
The Cultural Competency tasks that have been added to our scaffolds have been attended to by the registrars. The diversity of ethnicities amongst the registrars created a wide range of responses to the current training and this needs to be addressed in addition to covering the important issue of health disparities for our indigenous population.
“Incompetent” and “bungling”: The discursive construction of foreign doctors in the UK national press (2000-2010)

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Background and purpose
Recent data suggest that overseas-qualified doctors may be 1) more likely to be referred to the General Medical Council (GMC), and 2) progress further through the referral process, than UK-qualified doctors, although the reasons for this remain unclear. Over recent years, there has been an increasing focus on foreign doctors in the British press. We sought to characterise how foreign doctors are discursively constructed by the media and speculate on whether this may play a role in the rates of referral.

Methodology
Using the LexisNexis database, a corpus of all UK national newspaper articles referencing “foreign doctors”, their synonyms and plurals between 2000 and 2010 was generated. This search resulted in a 530,000 word corpus containing 782 articles. Using the analysis software WordSmith, we identified the most frequent sets of words and phrases which were used to represent foreign doctors, in order to illuminate repeated patterns that accessed a range of media discourses. Reference corpora using the individual search terms of “foreign” and “doctors”, were also generated to assess whether discursive patterns were unique to the concept of “foreign doctors”.

Results
A concordance search of “foreign doctors” yielded 1,168 citations. Collocational analysis (which examines which words appear at least five times within five words of the target phrase) revealed four major themes associated with foreign doctors: 1) the act of bringing foreign doctors to the UK, 2) their ability (or lack of ability) to speak English, 3) a group of words describing mistakes or incompetence, 4) words related to regulation of foreign doctors. A number of contradictions within the media discourse were identified, and there was a notable absence of discourses which showed foreign doctors in a positive light. The individual search phrases “foreign” and “doctors” in the reference corpora showed a different overall pattern of representation, although more negative words were associated with “foreign” and “foreigners”, than for “doctors” per se.

Discussion & Conclusions
Foreign doctors are invariably represented negatively by the national UK press, implying that they may be dangerous, unskilled or incompetent. The heightened sensitivity and awareness of foreign doctors as a negative concept raise the possibility that there is a lower threshold for referring these doctors to the GMC compared to UK-trained doctors. Further research is necessary to investigate this hypothesis more fully.

References
Prescribing teaching for medical undergraduates: a near-peer approach led by recently graduated doctors

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Background and Purpose
Developing the knowledge and skills required for safe prescribing is a major challenge of undergraduate education. Recent research identifies prescribing as an area of practice for which new doctors are under-prepared\(^1\)\(^2\). A GMC study in 2009 found that around 9% of prescriptions written by recent UK graduates (Foundation doctors) contain errors\(^1\), and there are similar concerns internationally\(^4\). Potentially contributing to this is a lack of focus on the practical aspects of prescribing during training\(^1\)\(^4\). Near-peer education has been employed with success in various medical disciplines\(^5\). As previously described, the approach can be used to introduce practical prescribing to final year students and this may result in fewer prescribing errors in assessments\(^6\). However, little is known about how students perceive the usefulness of near-peer approaches to prescribing education, especially when delivered to more junior students.

Methodology
The University of Edinburgh runs a near-peer prescribing programme for students in their first year of clinical attachments taught by Foundation doctors. The sessions are delivered to small groups and cover six topics including communicating prescribing decisions, drug monitoring, and adverse drug reactions. The sessions are based on clinical scenarios and involve prescribing practice. After each session delivered in the academic year 2009-10, students provided feedback using a 1-5 Likert scale.

Results
61 tutorials were delivered to 136 students (some attended several sessions) after which 289 separate evaluations were received. 74.7% strongly agreed or agreed that the “tutorials are likely to have more influence on [their] future prescribing than [their] formal teaching sessions.” 73.0% strongly agreed or agreed that “The prescribing education provided by these tutorials is more useful than that provided during formal teaching.” 77.9% strongly agreed or agreed that they “prefer to learn from foundation doctors than more senior medical staff.” Only 2.4%, 3.1%, and 0.7% disagreed with these respective statements.

Discussion and Conclusions
We have shown that it is possible for enthusiastic junior doctors to deliver a highly-rated practical learning experience for medical students. Key elements include an induction for tutors and carefully prepared materials (with senior review) targeted towards experiential learning. We believe that this approach overcomes potential concerns about the delivery of teaching by more junior prescribers whilst maximising the advantages offered by this cohort of teachers, such as approachability and perspective. Our data indicate that the benefits of the near-peer teaching are recognised by students, who consider that it will positively influence their future prescribing habits.

References


Challenges in developing open and accessible medical education resources: lessons learnt from Uganda

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Background and Purpose
Malnutrition is a major cause of death and disability among infants and children. An important reason behind failure of malnutrition management is limited knowledge and competency of health professionals. It is imperative that their capacity is developed. One way to achieve this is to provide health professionals with standardised and accessible training on malnutrition management. To achieve this, the IMTF and Faculty of Medicine eLearning at the University of Southampton have developed an eLearning course called “Caring for infants and children with Severe Acute Malnutrition (SAM)”. Designed based on the WHO’s guidelines, it provides standardised and interactive learning in 3 modules – core concepts, identification and management. Although rich in media, the course is created to run on a low spec computer with a limited internet speed to enable its access in both developed and developing countries. By completing it the user will gain the core knowledge and competencies for SAM management.

Methodology
In collaboration with the Uganda Paediatric Association (UPA), a study was conducted in Uganda in December 2010 to evaluate the effectiveness of the course and appropriateness of its delivery. Eight six, including doctors, medical students, nurses and nutritionists, participated in three half-days training. The study was planned through email correspondences between the UK project team and UPA. Four members of the project team came to Uganda to make the final arrangement and to conduct the study. Using pre and post tests and questionnaires, observation, individual interviews and focus groups, the participants’ experience during the study were investigated.

Results
Overall the course was well received for its design and delivery. However, the study presented a challenge in designing open and accessible medical resources. The course piloted is accessible through a registration requiring user email as their ID. However, one third, mainly nurses, neither had email accounts nor used a computer before. Only 14 out of 35 interviewed had computers and 8 had internet access. Google, PubMed and eMedicine were used by those who used internet for learning, but none had used an open educational resources repository. When tried to access medical resources from repositories, most were not “accessible” due to limited internet speed.

Discussion and Conclusions
This study presents us a question of what “open” and “accessible” medical resources are. What are accessible and open in developed countries may not be the same elsewhere; therefore, not open or accessible to them. To share a medical resource, we need to create it accessible and open to all, and this means we should consider the user environment.

References
Management and Administration
A tool for measuring quality of core psychiatry training programmes in London

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Background
There are various definitions of quality in education\(^1^,\)\(^2\). In medicine, international standards exist for undergraduate\(^3\) and postgraduate training\(^4\). In UK postgraduate training there are defined curricula and increasing accountability\(^5\). Assessment and monitoring of training quality remains variable. Annually, there is a national GMC survey of trainees as part of their quality assurance process\(^6\). In London, commissioning of core psychiatry training starts in August 2011\(^7\), which requires a robust local quality assurance system. This paper describes our consideration of methods of monitoring training quality, and development of a tool to support the process.

Methodology
London core psychiatry trainees work across 10 trusts and seven training schemes. There is a significant amount of quality data collected: GMC survey; trust annual self-reports; ARCP outcomes; visits by the deanery and the school’s trainee survey; but no framework to consolidate or interpret it. The quality monitoring process needs to have face validity, be reliable, transparent and feasible. Methods of representing this information were piloted. One qualitative method constituted a proforma for each trust with descriptions from the data sources listed above, resulting in “traffic-light” ratings. This reflected the range of data, but lacked transparency, and restricted quantitative comparison between trusts. A contrasting method was a numerical score obtained from an algorithm for each trust which awarded scores for GMC survey variables and other variables of interest. Although this facilitated ranking of trusts, it reduced the data to a single figure, making identification of areas for improvement harder. Given these limitations, an alternative method was developed.

Results
The tool aims to capture the breadth of data while retaining clarity. From previous work, six quality domains were identified, derived from 29 variables\(^8\). For each variable, trusts’ scores and the London mean were calculated from the data sources above. The scores were combined to give overall ratings for each domain. The six domains were plotted on a graph to allow trusts to easily identify areas of good/poor performance. To enable detailed analysis of each domain, below the graph was a breakdown of the variables, which could be used to target remedial action. This method allows for comparison with other trusts without league tables.

Conclusions
Quality is difficult to define and measure, but it is necessary to identify and collect meaningful data to promote improvement\(^9\). We hope our tool will achieve this in a useful, transparent, fair and timely way.

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Exploring experienced doctors’ and nurses’ perceptions and experiences of leadership and followership

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Background and Purpose
The role of good teamwork in the provision of quality health care is widely acknowledged. Weaknesses in teamwork, particularly the perceived inability of multiprofessional healthcare team members to work together, impede effective health care provision. Health professional training increasingly recognises developing team membership capabilities as a core outcome and include leadership development in undergraduate and postgraduate curricula acknowledging that the capacity to lead health care teams appropriately is an important professional attribute. UK policy documents and the Medical Leadership Competency Framework (re)emphasise the role of doctors as leaders of healthcare teams. Distributed and transformational leadership models are becoming more common in healthcare, reflecting a shift from transactional leadership. However, other policy documents across public sector integrated services (taking a wider focus than healthcare/clinical teams) focus on broader models of distributed leadership, servant and collaborative leadership. This policy misalignment potentially raises issues and questions at inter-personal and team levels concerning the roles of different health and care professionals working within interprofessional teams; professional identity; who leads teams, and what form that leadership might take.

Methodology
We report on a New Zealand study into interprofessional teamworking, leadership and followership in which we interview experienced doctors and nurses in hospital based leadership roles. This study builds on earlier research in which we explored the nature of leadership and teamworking with newly graduated doctors and nurses.

Results
Results from the first stage interviews from the current study will be presented. Responses identified a range of issues related to professional identity and belief formation, experiences of providing health care and working with other healthcare professionals in leadership and followership roles. In common with less experienced health practitioners, the experienced nurses and doctors also identified potentially confusing assumptions about who might lead and who might follow in healthcare teams which lead to overt conflict, tacit followership or subversion and negative impacts on patient care.

Discussion and Conclusions
This paper explores some of the issues identified from policy analysis and the study, including individuals’ conception of roles and how leadership and followership approaches might affect team working and performance. We offer a theoretical model to explain the operation of interprofessional health care teams which incorporates concepts of authority, power and identity, not typically included in traditional models of teamworking. Consideration of such a model may assist in the development of improved strategies to assist with the successful operation of such teams through educational initiatives.

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An Electronic Resource Library to Engage Doctors and Medical Students - A Cost Effective Solution to Improving the Efficiency of Leeds Teaching Hospitals Trust?

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Introduction
Historically Doctors and Medical Students at Leeds Teaching Hospitals Trust have relied heavily on Administration staff to locate and provide them with a variety of documentation. This culture has been driven by the isolated nature of departments and the lack of a user friendly interface through which such documents can be accessed. In addition, the modern doctor is time poor and lives in a heavily saturated multimedia environment. The net result of this is the inefficient use of Administration and Clinical staff time spent locating documents.

Aim
To reduce the:
• workload of the Medical Education Department
• costs accrued with the production of these resources
• time spent by clinicians and students when locating information

Approach
Development of an online resource library providing a quick and easily navigable way of locating a variety of up to date documentation

The resource library will hold:
1. Presentations, Video’s, Clinical Guidance (resource library)
2. Policy (both local & nationally)
3. Timetables & Rota’s (both departmental & teaching)
4. Course related documents
5. Orientation Instructions
6. Request forms (e.g. study leave etc)

Engaging our target consumers requires an imaginative marketing strategy involving a direct digital method combined with face to face tailored interaction, allowing effective two way communication and the opportunity for us to encourage buy in.

Discussion
Initial estimates indicate a saving of approximately £25,000 pa to Medical Education Leeds based purely on reduction of materials, paper, printing cost and administration staff time for the 1770 medical students / Doctors currently co-ordinated from the department.

We will evaluate the success of the resource library against our aims by undertaking:

• A qualitative evaluation of our marketing campaign with our target consumers
• A qualitative evaluation of the resource library and its perceived usefulness
• A comprehensive analysis of cost savings made during the pilot phase and potential savings for the forthcoming year.
The Continuum of Medical Education - the whole should be greater than the sum of the parts

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Background
We have seen, during the past two decades, significant changes in the training of the future doctor - changes in curriculum planning, in the use of new learning technologies, in assessment, in selection methods and in educational management. Despite arguments since 1932 in its favour, we have seen little if any progress towards the establishment of a true continuum of medical education. Medical training for the most part is currently organised, funded and delivered in the separate silos of undergraduate, postgraduate and continuing medical education with no evidence of an extended curriculum across the phases.

A Theoretical Model
The continuum of medical education can be represented as a five step ladder with the steps being “isolation” (fragmentation and segregation), “awareness” (comprehension and consciousness), “harmonisation” (connection and correlation), “coordination” (cooperation) and finally “integration” (fusion and unification).

A Paradigm Shift
The time is now ripe to move up the ladder from the “isolation” or “awareness” steps to a more meaningful and complete integration. In the past, despite reports and recommendations, this has proved impossible to deliver. The time, however, is now ripe for a paradigm shift to an extended curriculum and a true continuum of education. Catalysts for such a move at the present time are the adoption of outcome-based education; the concept of progression, a spiral curriculum and curriculum mapping; advances in medicine with rapid changes in medical knowledge; recognition of the need for lifelong learning; a greater mobility of doctors; new learning technologies and new assessment approaches and importantly, the current financial constraints.

Conclusion
All of us have a responsibility as players which we need to accept if this revolution is to succeed. We need, as advocated by Wayne Hodgins to “imagine if the impossible isn’t”. The losers will be those who remain inside their comfort zone and think only in terms of traditional medical education with the separate phases of undergraduate, postgraduate and continuing education.
The Changing Face of Clinical Teaching Fellows (CTFs) – where they came from and where they’re going

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Background and Purpose
Changes within the NHS together with the emergence of medical education as a recognised specialty have led to junior doctors taking on more teaching responsibilities. This process began in the 1990s\(^1\)\(^2\) and has resulted in, among other things, the creation of Clinical Teaching Fellow (CTF) posts. These posts were the subject of a study carried out in 2005\(^3\), which showed a variety of views of the purpose of these posts and how they were supported.

The Walport Report\(^4\) highlighted the need for specific avenues to be created for educationalists to enter the field, and posts have multiplied. Our survey documents the changes that have taken place since 2005. We go further than the previous surveys and examine issues such as how best to use and support CTFs and conduct a Needs Analysis for local and national networks.

Methodology
All Medical School Deans were sent a questionnaire on CTFs and a were asked to forward a separate questionnaire to their CTFs. Results will be collated using content analysis of the free-text responses and tabulation of the defined responses.

Results
We reveal an increase in number and a strengthening in identity among CTFs together with a rise in status, more evidence of formal support structures and a firmer commitment from Deans as to the worth of such posts. We also hope to reveal a more secure transition to specialty training and shed light on the future of the CTF role. We shall describe the creation of local CTF networks and the laying of foundations for national networks.

Discussion and Conclusions
As medical education continues to rise to the challenges posed by MMC and external pressures on the NHS, so new answers must be found to address the new demands. CTFs provide part of the answer but currently occupy a poorly understood niche within the armoury of medical education. In order to better understand this resource, we must take stock of the current state of play and examine how they see themselves and how they are seen. We would like to move towards a consistently agreed role for CTFs, as well as a model of how this type of clinician-educator is best deployed. We would like to integrate the CTF role successfully within MMC and Tomorrows Doctors frameworks so that it becomes a recognised and valued part of a medical educationalist’s career pathway: this survey will lay crucial groundwork.

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Multi-professional Education
Simulation learning in health care: is there evidence of transfer to the workplace?

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Background and Purpose
There is evidence that health care professionals and students value learning from training using simulation, but less evidence that skills and learning acquired are transferred into practice. This paper reports the results of focus groups where recently qualified medical and nursing students (N = 13) working in one London hospital were asked to provide evidence of transfer to their area of practice some time after enacting life-threatening scenarios in interprofessional training sessions. The aim was to look for evidence of transfer of learning into the work place.

Methodology
Inter-professional simulation training was provided for newly-qualified nurses and foundation doctors in training. Participants were employed in an inner London acute hospital. Training lasted one day, and involved four acute care scenarios. These were developed to meet the intended outcomes of the Foundation Programme, and the staff nurses Development Programme. This was evaluated using two methods, questionnaires and focus groups. The questionnaire data are not reported here as they broadly repeat the findings of a previous study (Abbott et al 2009). Participants were asked to attend a focus group some months after attending the training. They were audio-recorded and hand-written notes taken. The audio records were transcribed and the data analysed thematically.

Results
Fifty-one doctors and twenty-four nurses took part in the training. Five focus groups were held between May and July 2010. The focus groups were attended by three doctors and ten nurses. Both doctors and nurses reported how simulation training had improved their understanding of each other’s roles and how this helped them to act more purposefully and collaboratively on the ward. Simulation training had given participants a fuller experience of inter-professional working than did their ward experiences.

Discussion and Conclusions
Findings suggest that future research into transfer of learning after simulation training should focus on social-related on-the-job learning related to interpersonal skills, communication decision-making and leadership. The inter-professional basis of the training provided in this study was crucial to the reported transfer. Since it is already known that learners value simulation, satisfaction surveys are less urgently needed than follow-up studies of transfer. Participants were able to identify transfer of learning from simulation training to practice, particularly of social-related skills, in ways that are likely to contribute to safer patient care. The study was small, and its findings cannot be taken as robust, but should help to inform larger and more complex studies.

References/Bibliography


Developing Open Educational Resources for Interprofessional Education

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Background

The Medical School at the University of Leicester has worked with De Montfort University and the University of Northampton to develop materials for Interprofessional Education (IPE) for over 10 years. These materials have been robustly evaluated and contained face-to-face classroom learning, models of different types of practice learning in communities and in hospitals, and simulated events\textsuperscript{1,2,3}. These materials continue to be developed. The recent development has been the opportunity to take these materials and turn them into Open Educational Resources (OERs). This innovation is conducted as part of a JISC (Joint Information Systems Committee) and HEA (Higher Education Academy) funded project called TIGER (Transforming Interprofessional Groups through Educational Resources, \url{http://www.northampton.ac.uk/tiger}).

We would like to report on the process of what is happening in this innovation. During the presentation, we will demonstrate the type of materials that have been converted and released as OERs. These OERs will go live in the summer 2011. We will showcase examples of how academics at the three institutions have or are planning to incorporate these OERs into their teaching practice. Key lessons learnt from the process will be shared.

Method

We will evaluate the experiences, views and perceptions of developing and using OERs on the stakeholders: i) academics ii) learners and iii) practitioners using mixed-methods including an online questionnaire survey and semi-structured interviews. Quantitative data will be transferred into Excel spreadsheets and qualitative data will be coded using thematic analysis\textsuperscript{4,5} to identify categories and themes.

Discussion

TIGER is an ongoing project and we will present work-in-progress. This will include evidence about how students are using the OERs and what benefits and values OERs offer to their learning. Current and on-going data will be presented on the process regarding academic challenges in converting materials as OERs for IPE. These include how to present materials with clarity for both students and facilitators. Facilitation for effective student interactions about the OERs is essential for an IPE course. Technical and practical guidance about how to incorporate OERs into a certain learning environment is key for other educators to repurpose the OERs. We also have problems in using films produced by our institutions and in embedding videos produced by others for the OERs. Our key message is that all educators should think about what they might want to do with their educational materials for the future, as OERs appear to be a way forward.

References

There’s something special about my profession: exploring interprofessional assessment

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Interprofessional working across professions in health and social care requires collaboration, understanding of common purpose, pooling of knowledge and expertise and facilitation of joint decisions based on shared professional perspectives, (Barrett & Keeping 2005). If professional identity is important to the success or failure of interprofessional working then it is reasonable to assume it to also be of significance in interprofessional assessment. Despite policy drivers for interprofessional learning (DH 2007) professional culture and professional identity have been found to be compromised by this approach (Colyer 2004). But there is little evidence in the literature on the impact of professional identity on interprofessional assessment. The ALPS-CETL (Assessment and Learning in Practice Settings – Centre for Excellence in Teaching and Learning) programme mapped common competences of communication, teamworking and ethical practice (Holt et al 2010) and this study was undertaken in order to further understand what they mean to 8 health and social care professions.

The aim of this qualitative study is to explore what practitioners understand communication, team working and ethical practice to mean in their profession.

A purposeful sample of 19 practice based assessors was recruited from medicine and 7 other health and social care professions (audiology, clinical physiology, dentistry, diagnostic radiography, midwifery, nursing and social work). Diversity was sought across gender and their experience in assessing students in practice. Semi-structured interviews were used for data collection and analysed using a modified framework approach.

Preliminary findings found that across the 8 professions, communication and teamworking were understood by practitioners in a similar way and there was little difference in how these competences might be assessed across professions, however, there was some doubt when assessors were unsure of the exact role of some professions. Whilst commonalities were identified in ethical practice there was much less confidence as to its possible assessment within and across professions. Professionals were keen to maintain the distinctiveness of their profession, but recognised the importance of working together for the best outcome of the patient.

This study has identified some barriers and facilitators to interprofessional assessment across these 8 professions and the importance of taking professional identity into account in order to progress interprofessional assessment of practice.

References
Multidisciplinary trauma call simulated training – a first for the UK

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Background and purpose
To address the deficiency in trauma call training and to aid multidisciplinary communication and teamwork.

Methodology
We set up a real-time trauma call scenario in the resuscitation room using a computerised simulator to represent the patient. Three trainees (one in anaesthetics, one in emergency medicine and one in surgery) were selected and were pre-warned that they would receive a trauma bleep during the morning. Their commitments were covered to allow availability. On receiving the audible bleep (“simulated trauma call – A&E – eta 5 minutes”) the chosen trainees assembled in the resuscitation room. The A&E nurses had been selected to help and were pre warned about the trauma. The A&E consultant gave information to the trainees that a 30 year old man had fall from a height of 10 meters. Moments later, two paramedics brought the simulator on a trolley into the room and the trauma proceeded in real time. The computer programme was set up so that the simulator clinically deteriorated, necessitating chest drain insertion and subsequent intubation. These manoeuvres were possible on the manikin. The chest drain bottle was then substituted for a pre-filled bottle with red fluid, simulating haemorrhage.

All trainees were assessed using standardised assessment tools looking primarily at teamwork, communication, clinical competence and outcome. Everything was in place as it would be in reality, including availability of consultant colleagues for advice / help.

Conclusion
Feedback was universally positive. All trainees felt that this was realistic. Feedback and reflection was useful and highlighted areas of concern to be addressed. We believe this to be a first in the UK and will become part of the mandatory training for trainees in our region.
The decline of empathy during medical school

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Background
This poster reports on a comprehensive, systematic review of the evidence of a decline of empathy in medical students and explores the mechanisms behind this phenomenon. As suggested by Hojat et al, empathy is paramount in improving clinical outcomes and avoiding malpractice.

Methodology
Medline and PsycINFO were searched using the following MeSH terms and text words: empathy, cynicism, medical students, medical school, medical education. Reference lists of relevant articles were also hand searched. Those studies excluded primarily concerned nursing students or other healthcare professionals.

Results
Four longitudinal and 3 cross-sectional studies from the period 2002-8 were identified as demonstrating a quantitative decline in empathy in undergraduate medical (6 studies) and dental students (1 study) on the Jefferson Scale of Physician Empathy (JSPE), the Balanced Emotional Empathy Scale (BEES) or the Interpersonal Reactivity Index (IRI). Four of these studies showed the sharpest decline as occurring during the first clinical year. Suggested explanations include: increasing cynicism or stress, the prevailing medical culture, tacit learning from medical teachers, loss of idealism or non-reflective professionalism. Several further studies demonstrate that empathy continues to decline beyond medical school. However, a recent meta-analysis concluded that the reported decline in empathy has been exaggerated. Factors that have been found to be associated with empathy scores include: clinical competence and gender; specialty choice; and personality and parental relationships.

Discussion and Implications
This poster highlights the evidence of a decline in the empathy of medical students which appears to occur most sharply in the first year of clinical exposure. In addition this same falling trend has been demonstrated in recent medical graduates. This phenomenon could be explained by several different and opposing theories including that of tacit learning. The importance of doctors as teachers and as role models in maintaining the empathic skills of students is a key finding. Further research might focus upon the pedagogic implications for medical educators in considering strategies for lessening the impact of this decline.

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A simple confidence boosting activity for 3rd Yr medical students. Can it lead to more and better learning?

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Background and Purpose
Making the transition from pre-clinical to clinical practice as a medical student is notoriously difficult\(^1\). It has been suggested that educational interventions aimed at smoothing this transition offer an approach to translating workplace learning theory into practice and show increased satisfaction, improved understanding of roles, and confidence boosting amongst students\(^1,2\). Confidence is a major determinant in students’ engagement with their clinical surroundings\(^3\) and greater engagement is likely to lead to more and better learning\(^4,5\).

Methodology
57 3rd year medical students were recruited and asked to rate their confidence levels in various ward-based activities using a 5-point scale questionnaire. 44 students then received ward-orientation training aimed at enhancing their confidence in the same ward-based activities. The control group of 14 students did not receive this training. Immediately after this intervention, the questionnaire was repeated. 9 weeks after the initial intervention, a ‘post-post-intervention’ questionnaire will be administered to establish the longer term impact on confidence levels. A purposively sampled focus group, representing a mix of those who stated greater and lesser increases in confidence will also be run to gauge the wider impact on students. We will explore issues affecting confidence on the wards, the impact of confidence levels on participation in ward activities and any subsequent impact on learning. We will also specifically seek participants’ views on gender in the arena of confidence levels.

Results
The post-intervention questionnaire revealed a notable increase in confidence levels amongst students (averaging between 15% and 30%, across the range of activities). Female students consistently rated themselves lower in confidence across all areas of ward-activity. It remains to be seen whether the initial boost to confidence is sustained and whether there is any perceived impact on learning.

Discussion and Conclusions
Initial results indicate that this intervention was successful in increasing students’ confidence levels across a range of ward-based activities. It is hoped that this initial increase in confidence will enable students to participate more actively in the ward and thus reap the benefits of operating within a community of practice\(^6\). Furthermore, the insights of the focus group will help define barriers and boons to self-efficacy, participation and interprofessional practice and learning. This is not the first time that notable differences between male and female confidence levels has been found\(^7\). Whether these differences in confidence have an equally noticeable impact on students’ participation and learning will be of particular interest.

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Healthcare students’ narratives of professionalism dilemmas: A multi-centre study of workplace learning

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Introduction
Healthcare education is about becoming a professional, part of which entails ‘fitting in’ with existing systems and practices, even if it goes against one’s idealised notions. During professionalism dilemmas healthcare students feel ‘put on the spot’ regarding their own and others’ professionalism. The majority of healthcare students (e.g. medical, dental, nursing, etc.) experience dilemmas during their undergraduate training. Consequences of these dilemmas can include moral distress for the student

Methods
We conducted a large multi-centre qualitative study using narrative interviewing techniques. Stage one of the study comprised 22 individual and 32 group interviews with 200 medical students at two five-year UK undergraduate and one four-year Australian graduate entry programmes. Stage two has so far comprised 2 individual and 8 group interviews (data collection is still ongoing) with 29 dental, 12 pharmacy, 10 nursing and 4 physiotherapy students. Personal incident narratives (PINs) are being thematically analysed to examine two original research questions: What is the range of professional dilemmas experienced within the workplace by different healthcare students? What emotions do healthcare students express when narrating their dilemmas?

Results
The most common professionalism dilemmas narrated by medical students were: consent dilemmas, patient safety/dignity breaches by students or healthcare professionals, students’ identity dilemmas, intimate examination dilemmas, challenging others/whistleblowing dilemmas, and students’ experiences of abuse. The most common emotions expressed by medical students were: “uncomfortable”, “shocked”, “horrible”, “bad”, “cried”, “upset” and “scared”. Data from dental, pharmacy, nursing and physiotherapy students is currently being analysed and will be finalised by the time of this presentation in order to compare differences/similarities across different healthcare student groups.

Discussion
Listening to narratives of professionalism dilemmas can reveal the emotional impact dilemmas have on healthcare students and the difficulties they experience in the face of such dilemmas. Large-scale UK questionnaires investigating the prevalence of these dilemmas and the moral distress caused are underway with all healthcare students. Understanding similarities and differences across healthcare students’ experiences can identify common areas for interprofessional teaching opportunities.

References
Real Time, Simulation-Based, Intensive Care Educational Session. Assessment, Stabilisation, Packaging and Transfer of a Critically Ill Patient

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Introduction and Background
Intensive care is a high intensity, acute treatment area. Good treatment of patients requires excellent clinical skills and knowledge as well as teamwork, leadership, situational awareness, communication skills and decision making. This is in a multidisciplinary environment and in situations that are time critical. Usually intensive care training involves the integration of these skills and is accomplished whilst working with real patients! Simulation based medical education (SBME) has been shown to be a very effective educational tool 1. Having variable difficulty levels, clinical variation and feedback are especially important and have been shown to increase SBME’s merit1. Lancashire teaching hospitals NHS trust has 2 intensive care units at 2 different hospital sites. This along with improvement in portable medium fidelity human patient simulators has allowed us to design a simulation session requiring the assessment, stabilisation, packaging and transfer of an acutely ill patient in real time and real settings. This session has been delivered once. We are about to run it for the second time, with improvements in fidelity of the scenario; more multidisciplinary involvement and improved feedback delivery.

Methodology
A scenario was developed which would run in real time. From the admission of a patient with amniotic fluid embolus onto one intensive care unit, to the handover of the patient on the second intensive care unit. It involves the stabilisation of the patient (assessment, invasive monitoring, intubation and treatment), packaging (organising the ambulance, adequate oxygen supply, infusion pumps, transfer bag, temperature control) and transfer of the patient in an ambulance from one hospital to another. Trainees of all levels were involved along with intensive care nurses and ambulance personnel. The scenario lasts about 4 hours and is video recorded. The week after internet based, video assisted feedback was given. Changes are being made prior to the running of the second session. Involvement of obstetric staff and inclusion of face-to-face feedback delivery are going to be trialed.

Results
The first session was well received with many saying that it was the best simulation teaching they have ever had. The participants valued the chance to treat and transfer an acutely ill patient in real time and in a safe learning environment. The first time this session was run, the feedback was given via internet based video-feedback. This feedback was well received but the trainees would have preferred more interactive, face-to-face feedback.

Discussion
Multidisciplinary simulation training has been shown to improve team work in operating teams 2. We believe that through real time, in-situ, multidisciplinary training both clinical and non-technical skills can be looked at and improved. Prior to the second session we have organised obstetric involvement and the ability to facilitate both internet based and face-to-face feedback. In this way we will be able to give feedback to all those who attend the session, despite working patterns. The changes that have been made prior to the second session should improve fidelity and enhance learning. We are looking forward to
seeing how this is received. We plan to discuss the session and the effect of the improvements made.

This first delivery of this session was presented at ASPiH 2010 conference. This planned presentation would be after the second delivery, with feedback driven changes made.

References
Interprofessional Ward-based Teamwork To Enable Safe Prescribing Practice in Healthcare Undergraduates

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Background and Purpose
Recent recommendations to help tackle the complex task of safe prescribing within healthcare education have included inter-professional, practical workplace-based interventions1,2. Learning Outcomes for an undergraduate prescribing curriculum have also been revised recently using a Delphi process3. Here we describe a new intervention at University College Cork incorporating the above, the student responses to it from a disciplinary and interprofessional learning perspective, as well as results of ongoing assessment of ward-based simulated prescribing exercises by medical students. What will the effect of this intervention be with regard to prescribing practice and readiness for interprofessional lifelong learning?

Methodology
This is a mixed method study. Pre and Post RIPLS (Readiness for Interprofessional Learning Scale)4 as well as student reflections and minute paper (classroom assessment technique) exercise post intervention will be analysed. Quantitative data analysis by SPSS and qualitative data analysis by NVivo 9, with two independent coders are ongoing. A prescribing portfolio with exemplars of weekly written prescriptions/transcriptions onto simulated kardexes and discharge scripts are formatively assessed using a rubric devised by the author, based on the literature5.

Results
Inter-professional student teams consult with patients, their kardexes and charts in order to decide what should be transcribed more accurately onto a simulated kardex and written on a simulated discharge prescription. Themes emerging include the fact that pharmacy and medical students feel they can learn a lot from each other with regard to prescribing legally, controlled drug prescribing, the importance of communication for prescribing safely. Lack of patients’ knowledge about the medications they take has truly surprised them. Pharmacy students really appreciate the chance to consult with patients in the hospital environment and their medication counselling skills for patients have impressed medical students. Prospective analysis of written prescriptions by medical students before and after this intervention is ongoing.

Discussion/Conclusion
Following a successful pilot project last year with a randomized selection of students, all Final Year Medical and Pharmacy students now participate in a practical prescribing ward-based activity. Results to date have shown that this is a comprehensive exercise that can achieve most of the learning outcomes for an undergraduate prescribing curriculum. The prerequisites for these learning outcomes in the practice-based setting can be achieved by implementation of the WHO “Guide to Good Prescribing” 6 in the earlier years as also described in the literature7. However, this practical prescribing intervention has not been described with inter-professional student teams in the adult hospital ward to date.

References
New Researcher 2011
The Experience of Medical students Classified as Unsatisfactory at Finals: a qualitative exploration of student perceptions about failure

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Background
Medical students in difficulty avoid asking for help, and fear that requesting support may leave a ‘black mark’ on their school records. Students who struggle also fail to attend remedial sessions, despite agreeing to receive them via a learning contract. The lack of understanding about these behaviours warranted further investigation, so medical educators could improve outcomes following remediation.

Theoretical framework
There are few theoretical frameworks, which specifically relate to the phenomenon of failure at medical school. The self-regulation learning (SRL) model is a conceptual framework for characterising the components for effective independent learning, however, may help to understand the behaviour of underperforming students undergoing remediation. The model is underpinned by educational and psychological theory: constructs include self-efficacy, motivation, learning styles, self-assessment, attribution, and adjustment. The experiential-relevance of the model has not been validated with empirical data derived from students who fail at finals, including the subsequent re-sit.

Research questions
Research question: How does the experience of failure at finals, and the subsequent re-sits, influence the behaviour of medical students in remediation?
Secondary research question: Can the SRL model contribute to a theoretical framework for understanding the experience of failing finals at medical school?

Methods and analysis
Interpretative phenomenological analysis (IPA) was chosen as the methodological approach for answering the research questions. The lack of understanding about failure from the student perspective necessitated an in-depth exploration of the phenomenon at a case study level. IPA encouraged emergent themes from individual interviews with each participant to be genuinely considered as new insights into the problem. An examination of the experiential-relevance or adequacy of the SRL model was tentatively made after completing the interviews and a series of focus group discussions with underperforming students.

Ethical approval
Ethical approval for the study was granted by the University of Leicester, and reciprocal agreement received from the University of Nottingham.

Results
32 personal interviews were conducted with individuals who failed their finals and entered into remediation. A sense of entitlement, high expectations and other narcissistic traits was commonplace amongst participants. Individuals consistently protected their well-being by blaming academic failure on external attributions. Problems associated with learning, self-assessment and adjustment to failure were major themes related to SRL. Distrust of the medical school, punitive treatment and fear of faculty were particularly reinforced in the group setting.
Conclusions

The phenomenon of failure at finals is complex, and unique to the individual unfortunate to experience it. Problems associated with attribution and learning take greater prominence compared to other parts of the SRL model after failure. The context in which effective learning occurs is different to that associated with underperformance, therefore, the SRL model may not locate all themes emerging from participants. Orientation to learning, dual processing, volition, personality type (especially narcissism), grief, cultural background, communities of practice and relationships with the medical school also affect how students experience and respond to failure. A conceptual framework acknowledging these influences, and the SRL model, is likely to provide a richer understanding about underperforming students at medical school.

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Developing effective educational interventions for Liaison Old Age Psychiatry teams: *findings from a Grounded Theory study*

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**Background**

Training hospital staff in good dementia and delirium care is notoriously challenging\(^1\). In England, the NICE Guidelines for delirium recommend education as a priority research area on the grounds that the evidence base is weak and implementation of interventions is poor\(^2\). Previously, we have argued that educational interventions are too “top down” and recommend researching learning needs, in order to overcome implementation barriers\(^3\). The aim of this qualitative study is to explore the learning needs of hospital staff in relation to managing the confused older patient. The intent is to develop effective educational approaches for Liaison teams (hospital mental health teams).

**Methodology**

Working within a social constructionist paradigm, a Grounded Theory methodology was adopted\(^4\). 15 healthcare professionals, purposively sampled across the healthcare spectrum, were interviewed. Five focus groups with patients, carers and Liaison experts were also undertaken. Data was analysed thematically in parallel to data collection. Findings were taken back to participants by a “member check”. The research setting was a District General Hospital in the North of England.

**Results**

Transfer of learning, within the workplace, is limited by three contextual factors. Firstly, hierarchies within teams impair communicating person specific knowledge. Secondly, ward socio-cultural factors prevent implementing codified knowledge. Lastly, task focussed care practices restrict the ability of staff to learn about the patient. Further analysis reveals individual learning is closely linked to organisational learning and a broader approach to knowledge and education is required.

**Discussion and conclusions**

Integrating the findings with contemporary educational theories we have developed a three level intervention for Liaison teams. The approach operates at individual (to recognise tacit knowledge and attitudes of all staff), ward (to develop distributed expertise through relational expertise and creation of expansive learning environments) and system level (to promote organisational learning).

This study has underpinned a well evaluated interprofessional course facilitated by patients; introduced an undergraduate “Learning from Carers” day and contributed to the development of a video challenging negative attitudes towards the confused older person. New knowledge which is both timely and clinically useful has been generated.

**References**

New Technologies
MoMEd – how mobile information resources contribute to learning in the clinical setting

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Background
Mobile technology use is increasing in medicine and is thought to improve clinical care and reduce the risk of treatment errors\(^1\). Mobile information resources may also provide learning opportunities for students\(^2,3\). We aimed to achieve a better understanding of the process by which mobile information resources contribute to learning using qualitative and quantitative data.

Methods
385 clinical medical students were provided with a PDA loaded with medical resources for the duration of their clinical studies. Outcomes were assessed by a triangulation approach, using qualitative study of focus groups and quantitative analysis of surveys and usage tracking data.

Results
Qualitative analysis found three major themes - access to knowledge, consolidation of knowledge and the need for change. Medical textbooks and drug formularies were the most popular resources. The main barriers were the problems associated with carrying a second device and a preference for paper based resources. Owning a PDA increased learning opportunities, especially through repetition and ready access to knowledge. Students were keen for the medical school to continue supporting mobile learning, with the preferred future option to involve smartphones.

Conclusions
For most students the PDA is a supplement to their other educational tools rather than a replacement. Change in a number of aspects was required to optimise the learning potential that the PDA offers. Mobile learning forms an important aid to student learning which will be carried into their working career. It is a valuable resource not only for medical students but also for other healthcare professional trainees who work away from the university base.

References
A virtual surgery in general practice: evaluation of a novel undergraduate virtual patient learning package

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Background and Purpose
Computer based simulations of real-life clinical scenarios are increasingly being used in medical education. Despite the increasing popularity of virtual patients (VPs), it is recognised that such learning packages are resource intensive to produce. Equally they are only deliverable when there is effective learner interface. Therefore, not only is there a need to consider the usefulness of such learning tools but also their usability. A suite of 10 online VPs developed using the ‘Riverside’ authoring tool was introduced into our undergraduate general practice clerkship. Their interactive nature aims to promote the development of clinical reasoning skills in a primary care context. This study aims to evaluate the usefulness and usability of a set of online VPs in an undergraduate general practice clerkship.

Methodology
An online questionnaire was developed and sent to all medical students during their general practice clerkships (n=260) at Queen’s University Belfast in 2009-10. The questionnaire aimed to sample student’s opinions regarding the perceived usefulness of the VP learning package and the utility of the various multimedia components. Students were asked to rank the VP learning package compared to the other teaching mediums that they experienced during their clerkship. Respondents were asked to complete the System Usability Scale questionnaire (SUS) and provide free text comments regarding their experience of the VP learning package. Thematic analysis was used to analyse these free text comments.

Results
A 57% (149/260) response rate was achieved. 95% percent of students agreed that the online package was a useful learning tool and ranked VPs third out of six learning modalities. Questions and answers, images and videos were all rated highly by students as useful components of the VP learning package. The package was perceived as having an outstanding level of usability (SUS score 88.8%). Thematic analysis indicated that the VP learning package to be learner centred, provided students with a holistic review of a clinical case and that multimedia learning enhanced their learning.

Discussion and Conclusions
This study provides us with the opinions and experiences of a cohort of medical students on the use of a novel VP learning package set in general practice. Overwhelmingly they felt that this learning activity was user centred and a useful adjunct to their learning. It provided students with the opportunity and challenge of managing clinical cases in their entirety. As ever VPs will never replace real patient learning but complement such learning in a blended teaching approach.

References
Virtual patients: Are students good at clinical reasoning or good at using the technology?

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Introduction

Virtual patient (VP) simulations are being increasingly used in undergraduate medical education to develop clinical reasoning skills. Learners emulate the roles of health care practitioners using VPs to obtain a history, conduct a physical examination, and make diagnostic and therapeutic decisions. The authenticity of this learning task depends on the instructional design used for the VP (e.g. linear, branching or global). The fidelity of the learning task, similarly, is affected by the human-computer interface, e.g. simple computerised instructions vs. 3-D immersive virtual spaces. This study aimed to explore the ability of students to engage with this format of learning and assessment, before planning an evaluation of the potential for using VPs in testing clinical reasoning.

Methodology

12 students at different stages in their undergraduate education but all without prior contact with VPs, were invited to trial the usability, accessibility and acceptability of VP cases created using a web-based simulation technology, Virtual Ward. Scenarios mapping onto common presentations from the curriculum were designed to explore student interactions with the technology. Questionnaires and individual interviews were undertaken to evaluate the testing experience. Themes were coded using framework analysis. A topic guide for facilitators was constructed following a literature review of usability testing.

Results

The majority of students required little instruction about how to use the software, and were able to concentrate on managing the VP as a consequence. However, four individuals were unable to proceed through the VP case without instruction on the software from the facilitator. Three individuals prematurely ended the learning task because of unfamiliarity with the user-interface. One individual was also unable to gain feedback because the user-interface did not account for individuals with colour-blindness.

Discussion and conclusions

Collaborative user testing highlights a number of issues specific to new web-based technologies using VPs. These require attention before evaluating learner experiences or effectiveness for clinical reasoning development. Usability (e.g. navigation), accessibility (e.g. for colour-blind users) and acceptability (e.g. across different learning styles or levels of expertise) issues have implications for assessing student performance, because performance may be adversely affected confounded by barriers presented by the technology. Educators require evidence that VP metrics reflect a measure of learning and not familiarity with the technology. Once issues concerned with using the technology have been addressed, VPs may provide a useful learning experience for medical students and help develop clinical reasoning skills.

References

Training the digital generation – Perception of usefulness of virtual reality laparoscopic simulators among the fourth year medical student population

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Background and Purpose

Virtual reality (VR) laparoscopic simulators hold great potential for the future training of surgeons and are already being incorporated into surgical training programmes nationally; in contrast, medical students are only just beginning to have exposure to these simulators. This prospective questionnaire-based study aims to determine whether medical students perceive VR laparoscopic simulators as being useful educational tools within the MBBS curriculum in terms of learning anatomy, managing clinical conditions and supporting career choice.

Methodology

During the academic year 2009-10, fourth year medical students from University College London undertaking their Obstetrics & Gynaecology placements at the Royal Free Campus were invited to attend a structured “hands-on” tutorial at the Royal Free Hospital Simulation Centre using VR laparoscopic simulators (LAPMentor, Simbionix Ltd, USA), the student per simulator ratio being 2:1. During the tutorial, students completed seven basic laparoscopic psychomotor skills tasks followed by either a laparoscopic sterilisation or part of a laparoscopic salpingectomy for ectopic pregnancy. Participants were invited to fill a five-point Likert scale anonymous questionnaire pre and post tutorial.

Results

A sequential series of seventy out of 80 students (87.5%) attended the tutorials, the response rate being 100%. The vast majority of students who completed the questionnaire felt that VR laparoscopic simulator sessions are useful both clinically (87.1%, 61/70) as well as for learning relevant anatomy (91.4%, 64/70), with several students commenting that the simulators would have been useful in pre-clinical years as either an adjunct or even replacement of dissection. Almost 95% (66/70) of participants felt that all students should access the VR laparoscopic simulators with over 65% (47/70) feeling that VR laparoscopic simulator training should be part of the MBBS curriculum. All participants (11/11) who prior to the tutorial intended to pursue a surgical career said that the session had reaffirmed their aspirations. Interestingly, 53.1% (17/32) of participants who were not intending to pursue a surgical career prior to the tutorial said afterwards that the experience had made them reconsider their career pathway.

Discussion and Conclusions

Medical students perceive VR laparoscopic simulators to be useful at an undergraduate level as an educational tool for learning both clinical conditions and anatomy, as well as helping to make informed decisions regarding career pathways. Although questions remain to be answered with respect to VR simulation effectiveness, our findings reinforce the vision that computer assisted simulation have the potential to continue to grow exponentially in medical education.

References

‘Outcome-based’ model of academic mentorship program for medical undergraduates

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Background and purpose
Mentorship is an important career advancement tool. The role of a mentor is that of a facilitator. It is different from ‘tutor’, ‘coach’, ‘role-model’ and ‘advisor’.1 Different models of mentorship programs are prevalent in medical schools since late 1990’s and they are usually evaluated by means of cross-sectional surveys.2 A structured mentorship program was introduced in this institution with the aim of ‘improving academic performance’ of students. It was evaluated objectively in terms of difference of grades.

Methodology
Thirteen voluntary pre-clinical faculty were randomly assigned a group of 7-8 first year students each (with a set of guidelines), with the task of mentoring to help improve grades in the three pre-clinical subjects. Grades of unit-test before allotment were compared with that held two months later. Grades of similarly timed tests of previous year’s un-mentored students were available for one subject, so this was used as control for that subject. The timeline of the study is one year. No separate fund was assigned for program implementation.

Result
We are reporting early trends based on five month mentorship. Overall mean scores improved significantly (p< 0.001). Improvement in two subjects was more marked than in the third. The results of individual mentors were also different from each other. When compared with difference in grades of controls available for one subject, significant improvement was found in mentored group.

Discussion and Conclusion
The existing literature on mentorship programs is varied and specific evidence based information on its effectiveness or efficiency is not available.3,4 This requires more formal programmes with clear goals and a short and long-term evaluation of the individual participants, including cost-benefit analysis.3 The preliminary results of this program are encouraging. The program did not incur any apparent expenditure. However, it needs to be monitored and studied for several years to conclude on its benefits and hidden costs.

References
3-Dimensional (3D) models of skin lesions hold significantly more diagnostic information and are undergraduate students’ preferred adjunct for dermatology education

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Background
In Dermatology the fundamental clinical skill is being able to attach semantics to images. Expertise is developed by cultivating non-analytical pattern recognition through exposure to multiple examples. We have identified that current UK undergraduate exposure is inadequate to develop these competencies\(^1,2\), therefore we have been investigating methods of improving non-experts’ diagnostic accuracy using both 3D simulation and electronic diagnostic support tools\(^3,4,5\).

Purpose
Clinical images, by necessity, are regularly students’ only exposure to some skin lesions. 3D digital models might offer an advance over current 2D images. We have built a library of 3D skin lesions using Dimensional Imaging’s surface image capture method of Passive Stereo Photogrammetry\(^3,6\). Although the majority of students (96%) prefer these images, it has not been investigated whether they hold a measurable benefit.

Methods
The first aspect of assessing the utility of 3D images was to see if they contained more diagnostically useful clinical information; if they did, further investigation of their educational benefit would be merited. On completion of their undergraduate attachment 50 students undertook the study. None had prior exposure to any 3D skin images. 100 images (20 from each of 5 diagnoses) were selected from the Department’s library. From the 100, 2 test batches of 20 images (a 2D batch & 3D batch), were randomly sampled in a stratified manner for each subject, who were then required to provide a diagnosis for all 40 images.

Results
The 50 students had an overall diagnostic accuracy of 38% (385/1000) with a median score of 8/20 (Range 2-12) for the 2D images and an accuracy of 47% (470/1000) with a median score of 9.5/20 (Range 5-14) for the 3D images (Paired Wilcoxon p<0.0001). Additional experiments (n=69) demonstrated the results to be replicable and not due to any generic effect of being able to interact with the images on the screen.

Discussion
This work confirms that 3D models have additional useful clinical data. This is not unsurprising as in addition to depth, the images also allow the students to see the lesion from the multiple angles that would be achieved in a clinical setting. We believe these models, in the correct software environment, could be useful for improving non-experts identification of skin lesions. Further investigation is needed to develop this as an educational tool but we see considerable potential as it could be easily web-based to allow widespread access.

References
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Worth a Watch: Video Tutorials Augment Practical Demonstration for Learning in the Psychomotor Domain

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Background and Purpose
Some studies have shown video tutorials to be as effective as lecture-based education in the cognitive domain and to maximise resources and enhance learning during feedback to postgraduate trainees. Others examined the effectiveness of video-based education with traditional demonstration in undergraduate clinical skills training and found demonstration to be superior. With increasing use of multimedia and other new technologies in medical schools, we wanted to determine whether allocation of resources to the production of video tutorials is a worthwhile investment. We examine if augmenting a practical session on surgical scrubbing with a video tutorial results in enhanced learning in the psychomotor domain.

Methodology
Thirty-two students were recruited and randomised to either a group that would watch a video-tutorial prior to the clinical skills session or to a group that would have the clinical skills session only (control group). After the session, each participant demonstrated the skill they had learned and were assessed using a checklist on the accuracy of the method and technique. The assessor was not aware of the participant’s randomisation result.

Results
Assessment scores of participants in the video-tutorial group were significantly higher than in the control group (unpaired t-test, p=0.0002). This was despite students in the video-tutorial group having less experience of the skill, with only one student having carried this out on more than five occasions compared with four in the control group. The number of students aspiring to be surgeons, however, was higher in the video-tutorial group (4 vs 2). There was no significant difference in the sex or age of participants between the two groups.

Discussion and Conclusions
This randomised, single-blind study supports the production of video-tutorials for augmenting demonstration based clinical skills teaching and suggests they enhance learning within the psychomotor domain. Students are enthusiastic about new technologies in learning and find video-based instruction an effective method. Learning benefits from video-tutorials may arise from students being given a more active role in their learning by being allowed to view material at their convenience, set their own objectives and repeat material to suit their requirements. They are required to actively extract information and the multimedia format engages a wider range of learning styles.

References
In it To Win it: The Relationship Between Levels of Participation and Achievement on an E-Learning Medical Education Programme

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Background
With the development of e-learning programmes, much time has been focussed on the development of the content and materials rather than the interaction that is involved between the learner and the materials, the learner and the tutor and the learner and their peers. A key issue recognised by online tutors on our Postgraduate Medical Education Courses has been the variable nature of online posting. Some learners are prolific and discuss the presented topics at length whilst others contribute very little. As much of the online tutor activity is based around encouraging and supporting discussion and interaction we sought to identify the relationship between levels of online participation and achievement/outcome on the Postgraduate Certificate and Diploma in Medical Education.

Methodology
Student posts from Cardiff University’s Virtual Learning Environment were available for cohorts starting in 2008 and 2009 (172 students) and were retrieved and attributed to individual students. These posts were collected into different groupings for individuals, modules, separate discussion lists and wiki participation. Grades and feedback for each learner for each module assignment were also made available.

Results
The main finding was that generally the higher the level of participation from the student, the more successful they are in obtaining a high grade. There were some variations between number of posts and length and type of posts but generally those who posted most achieved a grade B or above. The highest grade for top10 student discussion board contributors was B+ and the lowest B-. Categorisation of type of posts led to further insights; those sharing/engaging in the task and offering opinions tending to achieve higher grades.

Discussion and Conclusions
Whilst it would appear that active participation through online tasks and activities indicate that individuals are likely to obtain higher grades in assessments there are some anomalies and words of caution within the literature. Although some individuals do not actively engage in discussion, these may participate through passive attention. Whether this ‘passive attention’ leads to problems in terms of group interaction online is an important issue and the potential for this to affect the achievement of others on the programme is worthy of discussion.

References
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Postgraduate Education
Approaches to Operative Training and the Implications for Learning: The Trainee Perspective

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Background
Various change drivers have recently served to alter the face of surgical training beyond recognition. The impact of this has been most felt in the operating theatre by both trainers and trainees.

Aims
Identify the spectrum of trainee perspectives on current operative training.
Identify training approaches and trainer-trainee interactions that may offer guidance to optimise operative learning opportunities.

Methods
Purposeful selective sampling of 6 surgical trainees for gender, stage of training and career intentions. Transcribed individual semi structured interviews analysed within defined themes viewed through the cognitive and social constructive educational lenses.

Results
Consistency of trainee experiences emerged around the themes of trainer-trainee roles and relationships, team culture and practices, appraisal and creating learning opportunities.

Discussion
Trainee experiences reveal the powerful operative learning that is achieved through effective social interactions within the diverse theatre community of learners. The interaction with the trainer and the role played by the trainer to facilitate entry and acceptance into the operating team are exemplified and shown to impact greatly on learning. This provides a contrast to the privileged cognitive constructs of learning favoured within the Intercollegiate Surgical Curriculum Project.

Conclusion
This research may offer insights for trainers and trainees to optimise the various learning opportunities within the operating theatre environment and aid in addressing the detrimental effects of the loss of firm structure and reduced training time to the training of our future surgeons.

Evaluating trainee experiences of operative training through various educational lenses can reveal strategies and tools that both trainees and trainers can use to optimise the learning opportunities in this unique training arena. The current Intercollegiate Surgical Curriculum may fail to sufficiently address the value of learning as a social construct incorporating the interplay between individuals and the surgical team.
Foundation doctors’ attitudes to pre-employment competency screening

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Introduction
Pre-employment competency screening (PECS) has been introduced in some regions for Foundation applicants. This takes place after a candidate has been allocated a post but prior to the contract offer from the employing trust. This survey was designed to assess the acceptability of PECS to applicants.

Methods
A survey was created and sent to all foundation applicants assigned to posts in the North Western deanery. Free text comments were analysed for recurring themes by two of the investigators and variances discussed until common themes were agreed.

Results
The survey was sent to 555 applicants with 265 replies giving a response rate of 47.7%. A summary of the results follows:

1. Were you aware you would have to complete PECS before the offer of your contract?

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<th>Yes</th>
<th>No</th>
<th>Total</th>
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<tr>
<td></td>
<td>192</td>
<td>72</td>
<td>264</td>
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<td>%</td>
<td>72.7%</td>
<td>27.3%</td>
<td>100%</td>
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2. What do you think the purpose(s) of PECS are?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of responses</th>
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<tbody>
<tr>
<td>Identify educational needs</td>
<td>110</td>
</tr>
<tr>
<td>Assess competency</td>
<td>73</td>
</tr>
<tr>
<td>Make provision for training (individual)</td>
<td>69</td>
</tr>
<tr>
<td>Patient safety</td>
<td>39</td>
</tr>
<tr>
<td>Assess group weaknesses to plan training</td>
<td>23</td>
</tr>
<tr>
<td>Check (English) language skills</td>
<td>12</td>
</tr>
<tr>
<td>Screen out unsuitable candidates</td>
<td>9</td>
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3. Do you think PECS was a fair assessment of competencies that would be expected from a newly qualified doctor?

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<th>Yes</th>
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<td></td>
<td>235</td>
<td>26</td>
<td>261</td>
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<tr>
<td>%</td>
<td>90%</td>
<td>10%</td>
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4. Did you find the process valuable?

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<th>Yes</th>
<th>No</th>
<th>Total</th>
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<tbody>
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<td></td>
<td>213</td>
<td>52</td>
<td>265</td>
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<tr>
<td>%</td>
<td>80.4%</td>
<td>19.6%</td>
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Discussion
A significant minority (27.3%) of applicants indicated they were unaware they would have to undergo PECS prior to the offer of their contract, despite this being both on the deanery website and in the foundation programme handbook. Applicants saw the main purposes...
of PECS as identifying educational needs and making provision for training. Local data from our deanery suggested that this occurred in 9/17 trusts. Ensuring patient safety was also seen as an important feature. A recent national survey of foundation training programme directors also highlighted these areas as being the primary purposes of PECS\(^2\). A majority of applicants thought that the process was fair (90\%) and valuable (80.4\%) and this would suggest the process is acceptable to applicants.

**Conclusion**
A series of recommendations has been made to the deanery regarding the PECS process. Local applicants agree with foundation programme directors that the main purpose is to identify educational needs and to protect patient safety. It would seem that the process is acceptable to a majority of applicants.

**References**
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Longitudinal observations of an e-learning blog. Struggles and Engagement around reflective writing of Dental Trainers in Postgraduate Education

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Background
The study stems from recent changes in the requirement for vocational dental trainers to undertake a programme of teacher training in order to enhance their pedagogic and supervisory skills. It explores a key aspect of dental trainer engagement with the reflective BLOG space in a virtual learning environment of a novel Postgraduate Certificate in Dental Education.

Methodology
Eight out of a total of twenty four students, participated with the BLOG. These eight students constituted our case study. On average between 4 and 12 blogs were made by each participant and the text numbers varied between 30 and 300 words. Students decided on engagement or non-engagement, participation was not compulsory. First the private BLOGS from one term were analysed (by the three authors on an individual basis) using a grounded approach. They looked for regularities /patterns and key phrases of how students engaged and whether it appeared reflective or not. The three authors then collectively identified and refined themes which had initially been individually named. A year later 6 out of the 8 initial participants were approached after completing the PGCert and were interviewed using a semi structured questionnaire to explore how they retrospectively utilised the BLOG space as students.

Results
Initially we identified two levels of student engagement. First those who held conversations with themselves (whilst aware that their reflections were being monitored by tutors) and secondly those who prompted interaction with a tutor engaging in a variety of ways.

Further analysis of the BLOG entries however, revealed layers and motives for activity with participants seeking to:
1. Network/communicate
2. Public/Private areas – more likely to engage with private
3. Counselling role – self counselling, getting it all out/down
4. Engagement with course or tutor
5. Voicing frustrations with own learners/patients/team members

The study reports in particular on the way in which participants ‘subvert’ the space as they seek to ‘convert’ raw experience into structured reflection. For a number of students, an invitation for individual tutor comments which itself variously challenges, endorses, refines, promotes and develops student entries. These dialogues are notionally collegial but student and tutor motives exploit ambiguities in the space which will be described and analysed.

Discussion/Conclusion
The study raises questions about the use of communal electronic spaces and how clarity of purpose becomes a key factor in the ways e-learning environments might contribute to postgraduate dental education.
Matching the Patterns and Joining the Dots: using thematic analysis to identify the learning needs of educational supervisors

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Background
As part of its commitment to the professionalisation of medical education the Wales Deanery funded the delivery of a menu of educational programmes for Educational Supervisors, designed to address and complement the policy developments identified by the GMC / PMETB\(^1\). The programmes were delivered by the Medical Education Unit within the Deanery over the period August 2007 – September 2009. There were 577 attendees on the 37 core and option modules provided and data were drawn from the educational challenges they identified.

The overall aim of this study was to identify the learning needs of clinicians in the Wales Deanery.

Methodology
During each course the educational supervisors were asked to identify their educational challenges. Thematic analysis\(^2\) of the data were undertaken in order to determine their learning needs. This is a form of pattern recognition and requires the careful reading and re reading of the data to enable emergent themes to become categories of analysis\(^3\).

Results
A large number of themes were developed from the analysis and the key issues extrapolated into learning needs. The data reveal a lack of clarity among the clinicians on the courses as to the precise roles and responsibilities of educational supervisors. Many of the attendees were unclear as to whether or not they were educational supervisors (in spite of their having trainees). Their educational needs can be summarised as:

- The need for clarity with regard to the role and responsibilities of the educational supervisor of roles,
- The need for protected time for the educational supervisor role
- Raised awareness of techniques to teach, assess and appraise clinical staff

Discussion and Conclusions
Whilst the number of challenges remains stable over time, there has been less emphasis placed on the top three concerns, planning, time and shortened training. It can be suggested that that the support for educational supervisors, set in train in 2007, has had some success in the amelioration of some of their concerns. There is clearly a need for those clinicians undertaking key medical education roles to receive formalised training in the areas of educational supervisors core skills, assessment, appraisal and teaching techniques. To ensure that this important role is successful undertaken, Trusts need to act on the recommendation enshrined in the Gold Guide\(^4\) and incorporate it into consultant job plans.

References
Generating Insights: An evaluation of the SpR / ST Generic Curriculum in Wales

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Background and Purpose
Postgraduate medical education is often provided on an ad hoc basis; however, the Wales Deanery provides a structured generic curriculum for all its training grade doctors. This study aims to provide an evaluation of the programme through the perceptions of the trainees. In a climate of accountability, evaluations can demonstrate the responsible use of public funds.

Methodology
This exploratory study utilised semi-structured telephone interviews. This method provides a way of generating data about the social world and serves as a conduit for transmitting expert knowledge from the knower to the researcher. It is well established and sits well in a qualitative evaluation. The approach engenders free flowing conversation ‘with a purpose’. Ethical approval was obtained from Cardiff University. The data from 39 interviews were recorded, transcribed and analysed using a thematic approach and theoretical saturation was achieved.

Findings
The data reveal the educational benefits that can be gained from a programme of CPD activity which is structured such that it meets the needs of the participants, providing them with skill sets that are necessary to enable them to progress through their training. It provides new ideas for additions to the curricula and highlights the strengths and weaknesses of the existing programme.

Discussion and Conclusions
Participants recognised and welcomed the impact that this programme had on their professional development. They reflected on the benefits and offered some suggestions for additional modules and ways in which the current provision might be improved. The evaluation was seen as a further indicator of the Deanery’s ongoing commitment to providing quality training in Wales. The study demonstrates the benefits that can be accrued from engaging stakeholders in the development of educational initiatives.

References
How educational supervisors are conceptualised

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Background
Using Bourdieu’s\(^1\) and Foucault’s\(^2\) conceptual frameworks we examined the extent to which perceptions of educational supervisors and the assumptions underpinning them fitted with the concept of educational supervisor in the *Gold Guide*.\(^3\)

Methodology
We invited all Heads of Specialty School in the East Midlands to cascade a survey to relevant stakeholders in their respective Schools, 192 of whom responded: 62 educational supervisors, 24 Specialty Trainees and 72 Foundation Trainees. Another 34 respondents were Directors of Medical Education, Associate Deans, Postgraduate Training Directors, Heads of Specialty Schools and Clinical tutors. The respondents rated the extent to which they strongly agreed to strongly disagreed with statements taken directly from the *Gold Guide*\(^3\) and were invited to express their views via free-text questions.

Results
The majority strongly agreed or agreed that Educational Supervisors needed to be trained and accredited as competent to offer educational supervision (79%), provide regular feedback to the trainee on their progress (78%), develop a learning agreement and educational objectives with the trainee which is mutually agreed and is the point of reference for future appraisal (77%) and provide regular appraisal opportunities which should take place at the beginning, middle and end of a placement (71%). Key themes from free-text responses were that educational supervisors should be trained in assessment requirements and tools, advise trainees on how to improve e-portfolios, support them formulating appropriate personal development plans, offer career advice, understand potential difficulties faced by trainees and have more active links with clinical supervisors.

Discussion and conclusion
There was a high degree of consensus with the role and duties of educational supervisors as outlined by the GMC. Trainees had a concept of the role, function and responsibilities of educational supervisors that fitted well with the GMC’s concept of educational supervisors. Educational supervisors agreed with trainees that it was important that they should like to have a greater understanding the role and function of educational supervisor, but also asked for more specific requirements such as knowledge of various feedback methods, examples of pro-formae/ plans/objectives that can be used when trainees have no idea of what they need and a training programme with a well-defined curriculum.

References
‘Probationary Prescribing’

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Background
Prescribing errors have been highlighted by public press and medical literature with resultant increased early postgraduate training in prescribing. In addition, following the 2008 GMC report (1) of a lack of preparedness for prescribing amongst graduating medical students, Tomorrow’s Doctors (2) has recommended it be a focus for teaching in the period of transition from student to FY1. Other training in a clinical skill is complemented by observed practice in the workplace, with feedback. The foundation programme curriculum suggests the domain of safe prescribing can be assessed using current work based place assessments. However, there are no tools designed specifically to identify and support those struggling in this domain.

Aims
• To develop and pilot a programme of ward level supervision of early prescribing.
• To foster the delivery of constructive feedback on ‘prescribing performance’.
• To assess if these interventions affect adverse prescribing events.

Methods
A programme of ‘Probationary Prescribing’ (PP) was developed and implemented during the first 9 weeks of the FY1s employment in three district general hospitals. Each FY1 was given a logbook. Any adverse prescribing incidents noted by another doctor, nurse or pharmacist were highlighted to the trainee and recorded in the logbook. Each week, a nurse, doctor or pharmacist who worked with that FY1 was to comment on the doctor’s ‘prescribing performance’ and sign the book. In addition, all discharge prescriptions completed by FY1 doctors were required to be checked and counter signed by a more senior doctor. All IV drugs, to be administered by the FY1, had to be checked by a nurse or doctor.

At the end of the 9 week period, each FY1 was asked to meet with their educational supervisor who would review their logbook and decide if the doctor’s ‘PP’ status could be removed. Routine pharmacy audit data, on prescribing errors during the period of PP were compared to the preceding month and year. Formal ethical approval was not required for this project.

Results
Quantitative and qualitative results will be presented, outlining the impact of PP on FY1s, middle grade doctors, pharmacists and prescribing incidents.

References
Professionalism
Development and validation of an inventory to measure professional culture of institutions training healthcare undergraduates: Dundee Barometer of Institutional Professionalism (DBIP)

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M Chandratilake, Research Officer and S McAleer, Senior Lecturer, Centre for Medical Education, University of Dundee, Tay Park House, 484, Perth Road, Dundee DD2 1LR

Background and Purpose
Students in healthcare education programmes learn professionalism largely by informal means, i.e. from the hidden curriculum than from the planned curriculum.¹² Research evidence suggest that professional culture not only plays an important role in fostering professional attributes among individual students,³ but also in motivating student learning in general.⁴ Therefore, understanding professional culture, which prevails in educational institutions, by measuring it with a sound theoretical background has significant educational importance. We developed and validated an online inventory to measure professional culture of healthcare training institutions and it was piloted at the College of Medicine, Dentistry and Nursing, University of Dundee.

Methodology
Attributes of professionalism were identified by reviewing the literature. As professionalism is increasingly recognised as a social contract between doctors and society, these attributes were surveyed among the UK general public and healthcare practitioners to identify the importance they place on each of these attributes. From these findings, we identified a public model of professionalism and ‘items’ to measure the domains of this model. As the professional culture of an institution is the cumulative behaviours of its inhabitants which result from their attitudes, values, norms and social pressures, the rating scale of the inventory was developed using the Theory of Planned Behaviour (TPB).⁵ An online inventory was developed together with a short feedback questionnaire on its perceived utility value. It was piloted with Dundee medical, dental and nursing undergraduate students, and the academic staff. The responses to the inventory were used to determine its reliability and the feedback was used to determine its practicability and acceptability.

Results
The public model of professionalism consisted of three domains namely clinicianship, workmanship and citizenship. The UK medical practitioners selected 30 attributes to measures these three domains. This 30-item inventory produced total, domain and items scores, and was shown to be a reliable measure of professional culture in the given institution. The feedback highlighted the strengths and weaknesses of the inventory in relation to its practicability and acceptability.

Discussion and conclusions
The pilot study demonstrated that Dundee Barometer of Institutional Professionalism (DBIP) is a valid, reliable and practical tool to measure professional cultures of healthcare institutions. The implications of the findings in fostering professionalism among healthcare undergraduates will be discussed during the presentation. The DBIP will be improved based on the findings and feedback of this pilot study and will be used UK-wide in the future.

References
CanMEDS reflect? Mapping student reflections on professionalism to a competency framework

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D Bennett, Lecturer in Clinical Science and Practice, School of Medicine, Brookfield Health Sciences Complex, University College Cork, Ireland

Background and purpose
Reflection is core to professional development. In practice students and clinicians struggle with perceived vagueness of reflective practice. A number of methods are promoted to develop reflective practice. We introduced the use of parallel charting, a pedagogical tool to provide space and time for reflection and discussion with peers on professional issues. The parallel chart is a reflection on some aspect of patient care which does not belong in the traditional medical record. We were interested to discover what issues students would reflect on and how these would relate to models of professionalism. CanMEDS is the competency framework adopted within our university. We decided to investigate whether student reflections on professionalism map to The CanMEDS Physician Competency Framework.

Methodology
Year 3 students (n=108) wrote a parallel chart during each of 3 clinical attachments. The charts were transcribed and imported into NVivo9. Two independent coders (MK, DB) performed an initial round of descriptive coding. The CanMEDS framework was used to define pre-ordinate themes to categorise the codes, however responsive categorisation to themes outside the framework was also included within the study design.

Results
Students reflected on a range of topics which map well to CanMEDS. The CanMEDS roles of Communicator and Professional predominated. Collaborator, Medical Expert and Health Advocate roles were less frequently reflected upon. Manager was rarely mentioned. No emergent categories were identified. Examples of student reflections will be presented.

Discussion and conclusions
Junior student learning about medical professionalism in the clinical environment is focussed on the elements which are more visible in practice. Other doctor roles, are either less apparent or need to be actively demonstrated. Ringsted et al. found that doctors rated the Communicator role the most important, with the Health Advocate role rated least important. Student reflections were consistent with this emphasis. We suggest that the use of a competency framework such as CanMEDS may use a useful strategy to direct reflective practice and help students reflect on the full scope of professional roles.

References
Prospective and Longitudinal Studies
A longitudinal study identifies early scores in attitudinal dimensions as predictors of students’ poor professionalism at the bedside

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Studies in the USA and Great Britain that have analyzed college academic records of doctors with inconsistent professional behaviors have been very informative in terms of identifying risk factors in a physician’s time at medical school that are associated with subsequent professional misconduct (Yates & James, 2010) (Papadakis, Loeser, & Healy, 2001).

Although the samples of the studies were small, and the generalizability of the findings to other contexts requires further research, they suggest that poor professionalism of doctors can be traced back to medical school. However, research still needs to uncover general prospective of “poor professionalism at the bedside”, preferentially early in student academic life.

Our Medical School has an ongoing longitudinal study that tracks students in a number of academic and non-academic variables. Within the scope of the Longitudinal study, we are trying to identify predictors of poor professionalism of medical students inside medical school.

In this communication, we wish to present our current findings with logit regression prospective models. After defining a measurement criterion for poor professionalism, the study finds that the best predictors are student previous attitudinal scores.

References

Selection
National evaluation of the use of a computer based situational judgment test for selection into Specialty Training at ST1

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Background and Purpose
Machine marked tests are being piloted in the UK for selection into Specialty Training as a potential alternative to shortlisting. Additional benefits include the objective nature of the test providing consistency across multiple selection sites. A Situational Judgment Test (SJT) assesses how an applicant may behave managing difficult professional dilemmas. Particular attributes are targeted and questions tailored to specific professional groups. The predictive validity and incremental validity of SJTs for future clinical performance is well established.1 SJTs perform differently to problem solving and knowledge based tests which predict performance in knowledge based professional examinations.2,3

Methodology
An SJT developed for applicants to Acute Specialties was piloted alongside a clinical problem solving test as part of the Academy of Medical Royal Colleges (AoMRC) selection pilot in 2010. Applicants applying for CT1 /ST1 posts in acute care common stem, Anaesthesia, Core Medical Training, General Practice (GP), Histopathology and Paediatrics were invited to sit the SJT. The SJT was administered by computer across 21 driving test centre venues in England over 2 consecutive days and comprised 45 questions blueprinted onto 4 attributes: empathy and sensitivity, vigilance/ situational awareness, professional integrity and coping with pressure.

Results
351/666 (53%) applicants included in the AoMRC pilot completed the SJT. Overall SJT test statistics show good reliability (Cronbach alpha=0.84). Scores were approximately normally distributed and 37/45 (82%) items were successful (item partial >0.2). Candidates whose preferred specialty was Anaesthesia/ ACCS scored higher than candidates preferring GP or “Other specialties” (paediatrics, psychiatry and histopathology):

Table 1: SJT score dependent on preferred specialty choice of applicants

<table>
<thead>
<tr>
<th>Preferred Specialty</th>
<th>Number</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaes/ACCS</td>
<td>90</td>
<td>401</td>
<td>42.22</td>
<td>266-474</td>
</tr>
<tr>
<td>GP</td>
<td>196</td>
<td>380*</td>
<td>43.35</td>
<td>272-462</td>
</tr>
<tr>
<td>CMT</td>
<td>35</td>
<td>388</td>
<td>49.73</td>
<td>260-456</td>
</tr>
<tr>
<td>Other</td>
<td>30</td>
<td>376**</td>
<td>58.01</td>
<td>256-460</td>
</tr>
</tbody>
</table>

*One way ANOVA p<0.01, ** One way ANOVA p<0.05

Discussion and Conclusions
The SJT had good reliability desirable for high stakes assessment. The test differentiated candidates and most items are potentially suitable for an operational test. Candidates applying for Acute Specialties performed better than other specialty groups in the SJT.

Acknowledgement: Supported by Department of Health funding

References
Admissions: Widening Participation in Greater Manchester - Pilot Study

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Background
Medical schools remain dominated by students from the higher socio-economic groups, with only 10% of medical students being in the three lowest socio-economic groups. Changes to undergraduate tuition fees may further deter potential applicants. Here we describe a widening participation programme set up in Greater Manchester, comprising workshops and mentoring in Key Stages 3-5.

Scheme Description
The scheme aims to encourage equal opportunities in medicine, providing advice and support to aspiring young doctors and to run events and build links across schools. Discussion and practical workshops were held with 13-18 year old students in the Greater Manchester area. In addition, medical student mentoring partnerships were established for Key Stage 5 applicants to medical school.

Pilot Study
Pilot audit data were taken from teachers and pupils at a five-day workshop event. Pupils attended half-hour workshops comprising a presentation on medical school and skills session on basic life support. Quantitative data revealed enjoyment and utility of the session, with those pupils with a pre-existing interest in healthcare careers reporting greatest utility. Qualitative evaluation demonstrated that the session was a valuable source of careers information to all the pupils, with the BLS as the most popular aspect. Pupils' current sources of careers information were reported to be perceived as inadequate, with few using internet-based resources.
“Exploring the views of medical students, at one institution, concerning whether medicine in the UK should be a postgraduate or undergraduate degree”

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Background and purpose
Government initiatives in the UK have increased the number of medical school places in recent years, with a substantial proportion being allocated to postgraduate students. Whilst this partially achieves the governmental widening participation agenda increasing postgraduate entry to medicine has further implications. This paper focuses on highlighting the student perspectives from both postgraduate and undergraduates.

While there is evidence that shows postgraduate students on an undergraduate degree programme perform better academically than their undergraduate counterparts, this difference is marginal and there is no evidence that postgraduate UK students go on to make better doctors. Postgraduate students face increasing financial hardships and may find socializing into medical student culture problematic. Undergraduate students compared to their postgraduate peers are anecdotally unprepared for the rigors of both academic and professional training. The opinions of the students themselves are under evaluated and in the near future when students will be paying high tuition fees it is pertinent that we as educators take into account student opinions.

Methodology
Through a series of focus groups the views of medical students from all five year groups at one institution whose degree programme accepts both postgraduate and undergraduates, were obtained. Purposeful sampling formed three focus groups, consisting of undergraduate students only, postgraduates only, and the final focus group containing a mixture. This ensured that the discussion focused equally on both postgraduate and undergraduate issues while also allowing the diversity of opinion to be explored. Students were asked to comment on the prospect of medicine as a graduate only degree programme, what experiences and values were held by the students that informed their opinion, and what the implications of this might be on current and prospective students. The discussions were audio-taped, transcribed and analysed thematically.

Results
Currently the focus groups are being conducted and so results are preliminary. Student views are polarised and not always associated with coming from either a postgraduate or undergraduate camp. Some undergraduates feel marginalized by their perceived more successful postgraduate peers whereas some value their contribution to the curriculum and reflect that they would have themselves benefitted from studying for a previous degree. Postgraduates articulate the increasing financial and social hardships of a further rigorous and lengthy period of study.

Discussion and Conclusion
This paper increases our understanding of medical student views on postgraduate entry and can therefore facilitate some medical schools in making further informed selection decisions.

References
The use of non-consultant assessors in selection to specialty training

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Introduction
Selection to specialty training almost invariably involves the use of consultants to act as interviewers/assessors. With the growing trend towards multi-station selection processes this can require many hours of consultant time and incur substantial cost. The South West Peninsula Deanery (SWPD) anaesthesia six-station selection centre incorporates a medium-fidelity simulation station in which the candidate, assisted by two nurses, works through a standardised scenario. We aimed to compare the reliability of ratings of candidate performance awarded by the nurses with those of the consultant assessors and to examine the effect that the use of the nurse ratings might have on the final candidate rank order.

Methods
In the 2009 and 2010 selection centres, nurses acting in the simulation station consented to independently score candidate performance using the same scoring grids as the pairs of consultant selectors. Candidates were not aware of this and the nurses’ scores did not count towards selection. The nurses received minimal guidance on the use of the scoring grids but no formal training. We measured interrater agreement between the scores of the nurse and consultant pairs using the multirater kappa statistic $k_{av}$ with quadratic weighting.\(^1\) We examined differences between total scores awarded by the nurse and consultant pairs and assessed the potential effect on the final candidate rankings of substituting the nurse ratings for those of the consultants.

Results
The selection centre assessed a total of 125 applicants in which the simulation station was assessed by 9 consultants and 4 nurses. In 2009(2010) average interrater agreement coefficients were 0.70(0.79) for the consultants, 0.71(0.75) for the nurses and 0.63(0.69) across both groups, indicating good to excellent agreement.\(^2\) Differences between total scores awarded by the nurse and consultant pairs were up to 8(10) points out of the station maximum of 32(40). Substituting nurse ratings for those of the consultants might have no effect on which candidates were offered posts or could cause as many as 4(3) candidates to gain or lose, depending how many offers were made.

Conclusions
Interrater agreement was similarly good within the two rater groups but was slightly lower between them, suggesting a possible distinction in perspective between the roles of active participant (nurse) and passive observer (consultant). Differences in total station scores were quite large for some candidates but would have little effect on final rankings. These results suggest it may be reasonable to develop the use of nurse raters in this particular station.

References
Sir John Ellis Student Prize 2011 Winner
Traditional Poster board ITA versus an E-learning Approach: A Comparative Study of Students Satisfaction.

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The ‘virtual revolution’ has caused universities to not only to rethink isolated features of their course but consider their entire education strategy. But are traditional Universities up to speed with this modern method of teaching and embracing the potential which e-learning offers? E-learning, like tutorials can explain material with commentary and in a stepwise fashion, yet once produced, the pace is dictated by the student and does not have the limitations of timetabling or the necessity repeated lecturer input. This flexibility is vitally important, increased demands on academic faculties have resulted in less time for basic science teaching. Dundee University Medical School aims to address this insufficiency through integrated teaching sessions (ITA) where basic science teaching is currently delivered through poster boards.

An e-learning module was developed to teach the physiology of chronic obstructive pulmonary disease (COPD) and how to integrate this basic science into diagnosing a patient with shortness of breath. It incorporated a variety of media to help engage the learner, maintain their interest and promote self-directed learning. A comparative study against traditional poster boards was carried out on all year 2 undergraduate medical students (n=136). Students competed both a traditional poster board session and the e-learning module.

Analysis of the satisfaction survey questions indicated that students found the content of both teaching methods comparable. In contrast, the students’ ability to concentrate and retain the information was greatly improved by using the e-learning module. The mean difference between the teaching methods was 1.024 (p=0.000) for ability to concentrate and 0.730 (p=0.000) for memorable material. The corresponding 95% confidence limits were 0.681 to 1.366 for ability to concentrate and 0.426 to 1.035 for how memorable the material was, both on a 5 point Likert scale. Further questioning demonstrated that 67.31% of students would like e-learning resources to supplement traditional teaching.

Previous studies have shown that e-learning achieves knowledge gains. This study has shown that user satisfaction with e-learning is at least equal to, and in many ways superior to traditional text-based teaching. This potential should be harnessed by medical educators, not to replace, but to supplement and enhance classroom teaching. With ever increasing timetable pressures to cover core medical subjects it is essential that students are strategic in their approach to learning. By using modern technologies they can take control of their medical education in a self-directed, engaging manner which will evidently result in deeper learning and understanding.
Sir John Ellis Student Prize 2011
Runner Up
A Peer-led Programme to Prevent Mental Health Problems in Medical Students

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Medical students are at increased risk of mental health disorders compared to the general population. Students suffering mental health distress are more likely to become depressed, misuse drugs, struggle throughout their course and may in extreme cases put patients’ health at risk. However many students are reluctant to seek help for mental health related problems due to the stigma attached to these.

At the University of Bristol, a programme to deliver mental health awareness workshops to first year medical students is in its third year. These workshops aim to raise awareness of mental health disorders, develop coping mechanisms of all students and increase help-seeking behaviour of students experiencing problems. As a “Student Selected Component” of the curriculum, peer-led workshops are created and delivered by third year medical students for new medical students during their first week at medical school. The workshops were designed considering adult learning theory and delivered by peer educators to optimize learning.

Though long term evaluation of this project is not yet available, immediate feedback from the workshops was promising. Students appear to take up the learning objectives well, and were satisfied by the workshop delivery. Furthermore the peer led workshops provided third year students the opportunity to undertake teaching and gain experience of medical education.

Internationally, other medical schools are initiating programmes to improve the mental health of medical students, providing further ideas of effective interventions.

Programmes to improve mental health awareness are an important and low cost intervention, which hope to reduce the mental health distress of future doctors. It is arguable the impact of a one-off programme could be temporary. Incorporating a vertical theme of mental health awareness into the medical school curriculum should be considered, reinforcing the important requirement of all medical students and professionals: “[To] Recognise own personal health needs, consult and follow the advice of a suitably qualified professional, and protect patients from any risk posed by own health.” (Tomorrow's Doctors 23.i, General Medical Council 2009)
Small Grants 2011
I think you call it expertise: assessors’ perspectives on assessment

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Background and Purpose
The felt need of an authentic representation of what it means to be a good medical student has led to the development of a number of new assessment formats, like direct observation of trainee-patient interaction¹ and assessment of professional behaviour². Interestingly, most of these new formats rely on individual faculty making (subjective) judgments about medical trainees’ behaviours in everyday situations. However little is known about the nature of judgment and decision making processes of medical faculty involved in student performance evaluation³.

Methods
Using a grounded theory approach we conducted individual semi-structured interviews with seventeen faculty members and discussed with them their perspectives on how they form their opinion about their students⁴.

Results
Based on the analyses three categories (assessors’ own characteristics, task in the perception of the assessor, and context of assessment) and three recurring dimensions within these categories (perceived challenges, coping strategies, and personal development) emerged. Our participants deemed domain specific knowledge, practical experience and feedback from peers as essential in order to meaningfully and credibly evaluate student performance. The dynamic interrelatedness of the different factors and the developmental character are central for the understanding of the processes involved in performance evaluation.

Discussion and Conclusions
First, our findings suggest that the evaluation of medical students’ performance is an expertise task⁶. Second, our results are in line with findings from social perception and social cognition research, which see faculty as social perceivers, who provide motivated social judgments when evaluating performance⁷. These findings have implications for the future structure of faculty development programmes as well as for the design of programmes of assessment.

References
Peer-Assisted Learning: how does the peer relationship foster learning?

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Background
Peer-assisted learning (PAL) in undergraduate medical education may be defined as students acting as tutors for fellow students. Past explorations of students’ perceptions of PAL have identified unique benefits of the PAL interaction. Illeris’s model of three dimensions of learning may be combined with existing reports of congruence between peer-tutors and students proposed by past PAL studies, to provide a theoretical framework for examining the PAL interaction. This study explores the PAL learning interaction from the perspective of the peer-tutor.

Method
The study employs semi-structured focus groups and one-to-one interviews with twelve peer-tutors in the PAL scheme at Manchester Medical School. Video recordings of PAL sessions were used to stimulate reflection, helping to ground participants’ discussion in the events that occurred during the actual PAL session. Template analysis was used for thematic analysis of data, with a priori themes drawn from existing models of teaching and learning.

Results
Peer-tutors described congruency with students during PAL sessions that mapped onto Illeris’s model of three dimensions of learning. Cognitive congruence between peer-tutors and students enable tutors to pitch information in sessions at the appropriate cognitive level for effective learning to occur. Congruence in the affective domain allows peer-tutors to monitor the atmosphere of the learning environment, such that student affect is conducive to learning. Social congruence between peer-tutors and students means that role modelling plays an important part in the learning interaction.

Conclusions
Cognitive, affective and social congruence between peer-tutors and students define the PAL interaction and learning experience. Peer-tutors derive their models of teaching and learning in large part to their experiences as a learner. Peer-tutors congruence with students in Illeris’s three dimensions allow them to effectively analyse the student learning process; congruence with students enables peer-tutors to effectively act in the different roles of a teacher.

References
UK medical students’ professionalism dilemmas: examining dilemma types and their correlates

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Introduction
Within workplace learning environments medical students learn how to be a doctor informally through observation of and interaction with healthcare professionals. During this time, they experience a range of conflicts between the formal and hidden curriculum that may cause them to redefine what it is to be a doctor and result in them experiencing professionalism dilemmas.1 During 2007-2009 we conducted an international qualitative study examining 200 medical students’ explanations of behaviours during professionalism dilemmas across all years of medical school (England, Wales, Australia).2 Thematic analysis revealed a broader range of dilemmas than previously recognised. The emotional impact of these dilemmas was also apparent.3 What our qualitative research fails to tell us is how common these dilemmas are what factors correlate with types of dilemmas. Previous surveys in this area are limited: dilemmas were researcher (not student) generated and limited to investigating students near the end of their training at single-sites, mainly in the US with small studies in other countries4,5 To address these methodological challenges, we are conducting a multi-centre UK questionnaire study to investigate medical students’ professionalism dilemmas and their correlates, including emotional distress.6

Methods
Ethical approval and institutional permission to recruit students at 30 of the 32 UK medical schools was obtained. Questionnaire items were designed and piloted using common scenarios narrated by students in our previous qualitative study, including intimate examination, consent, and student abuse dilemmas. The questionnaire was accessible online for 9 weeks. When responding, students were asked to consider the past 12 months and identify the frequency of dilemma occurrence along with the level of moral distress they experienced.

Results
Data collection is currently ongoing. Presently, we have 1,291 participants from 29 medical schools. Using SPSS, descriptive statistics will ascertain the demographic and education-related sample characteristics, prevalence rates of dilemmas and emotional impact. Univariate and multivariate statistics will establish the relationship between these variables. Analyses will be complete by the time of the conference.

Discussion
The ethical climate of an organisation refers to the shared perceptions of correct behaviour and how such dilemmas should be handled. A weak ethical climate is one in which the consensus regarding appropriate behaviour is low. Research has shown that the occurrence of ethically dubious workplace behaviour is associated with the organisation’s climate.7 The social and psychological effects of these negative workplace behaviours on medical students will be discussed along with recommendations for the development of professionalism curricula in the UK.8

References
Fortune-tellers or subject specialists: challenging the standard setting paradigm in medical education programmes

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Background
Within the context of criterion-referenced assessment, the status of the Rasch model in supporting an objective approach to standard setting is recognized. In recent years, the veracity of a modern approach to standard setting involving this model has been reported in relation to standard setting of healthcare certification assessments in the USA (Stone 2004, Stone 2009, Stone and Koskey, et al 2011) This approach, known as Objective Standard Setting (OSS), has been the focus of my ASME-funded project exploring the merits of lesser known standard setting techniques based on findings from the literature and personal correspondence. By highlighting the virtues of OSS relative to more traditional standard setting methodologies, this review paper will provide some inspiration for a fresh perspective on research into standard setting methods in medical education while upholding the foundational principles at the heart of criterion-referenced assessment.

Recommendations
OSS bypasses the many iterations to establish judge consensus required in more traditional approaches. The tasks required of judges are greatly simplified through relying on their subject-expertise rather than their predictive capacities regarding a hypothetical candidate. Through allowing the range of judge expertise in a standard setting panel to be employed more effectively in setting the standard, it is more faithful to established principles for assessment practise. (American Educational Research Association, American Psychological Association, & National Council of Measurement in Education 1999, Stone 2011)

This approach also reflects the original intention of Ebel, Angoff and Nedelskey that the criterion for meeting a test standard should be grounded on test content rather than examinee performance. OSS also stands out from more traditional methods for standard setting through ensuring that this intention is met during the standard setting process (Stone 2004) and as such, appears to have greater face-value validity than other methods. Furthermore, research comparing the Angoff and OSS approaches suggests that in OSS, the standard set is remarkably more stable, reflecting a well-defined construct. Therefore within the context of current standard setting practises, we are compelled to ask, does the construct which the standard is alleged to measure actually exist or is it the missing trump in a full deck of cards for assessing test validity? (Stone 2011)

More generally, I shall argue that OSS has the potential to offer a more parsimonious, efficient, economic and valid approach towards standard setting than standard setting approaches more commonly used in medical education assessment.

References
Learning from Online Patients’ Voices: A Qualitative Study

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Background
Patients are increasingly using the internet to find information on health problems and share their experiences of illness. Although it is known that participation in online communities has benefits for patients, and shifts the dynamic of subsequent consultations, there is no research on how students can be prepared for supporting and caring for modern, engaged patients. Second year medical students in Cardiff are encouraged to compare the health experiences of a family they are visiting over several months in the Family Case Study to the narratives of patients in online health communities.

Aims
We sought to explore what and how students learn from reading personal blogs and forums on health matters. We also wanted to explore how prepared students felt to support patients who accessed information and support online.

Method
We are employing focus group interview methodology. To date, 3 focus groups (n=17) have been conducted with students in Year 3; Year 2 groups will follow in March. Interviews were recorded and transcriptions were anonymised. We will use framework analysis to determine content- and process-related themes i.e. what participants say and how they say it respectively.

Results
Preliminary analysis suggests a number of themes. Students have difficulty in integrating the narratives of online writing with learning from other sources. For some students a tension exists between evidence which is quantitative and ‘scientific’, and other sources of knowledge which are qualitative and narrative, including patient experience. They see online forums and blogs as mainly giving emotional not informational support to patients. There are some concerns around the information that patients may find online, but they feel that their current communication skills training may enable them to address these situations.

Conclusion
At this early stage in our research, it appears that the narratives of online patients may challenge students’ beliefs about knowledge and ways of knowing. They may need support in becoming aware of their personal epistemologies.
Staff Development
Survey of trainees attitudes to e portfolio, a pilot study

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Introduction
NHS E-portfolio is an online system used to collect assessment tools and demonstrate training and competency. It is a compulsory means of assessment of the progress of doctors in training for over 35,000 healthcare trainees in the United Kingdom. We aim to establish trainee doctor’s attitudes towards E-portfolio.

Methods
A semi-quantitative questionnaire was distributed at three hospitals in the North East of England. Completed entries were anonymised. Qualitative comments were also collected. Responses were collated by MS.

Results
All respondents used an E-portfolio account. 56% had received training in its use. Twenty two (40%) respondents were male and thirty three (60%) were female. 55 doctors completed the questionnaire, 21 (38%) were foundation doctors, 8 (15%) responses from CMT doctors and 26 (47%) were from higher medical trainees (ST3 and above). 83% had to use time outside of work to complete E-portfolio tasks and 69% found it diverted them from other educational aims. 33% of respondents felt E-portfolio diverted them from patient care. 64% of respondents found the E-portfolio website unreliable. Only 35% felt they had adequate training in the use of the E-portfolio system. 80% of respondents found E-portfolio to be a cause of stress and anxiety. Respondents questioned the validity and objectivity of the E-portfolio assessment system and noted difficulty in getting assessments completed.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (%)</th>
<th>Disagree (%)</th>
<th>Agree (%)</th>
<th>Strongly Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-portfolio is easy to use</td>
<td>7.4</td>
<td>40.7</td>
<td>48.1</td>
<td>3.7</td>
</tr>
<tr>
<td>The e-portfolio website is reliable</td>
<td>20</td>
<td>43.6</td>
<td>30.9</td>
<td>5.5</td>
</tr>
<tr>
<td>I have received adequate training for e-portfolio</td>
<td>25.9</td>
<td>38.9</td>
<td>31.5</td>
<td>3.7</td>
</tr>
<tr>
<td>E-portfolio takes up a lot of my work time</td>
<td>3.7</td>
<td>44.4</td>
<td>27.8</td>
<td>24.1</td>
</tr>
<tr>
<td>e-portfolio takes up a lot of time outside of work</td>
<td>0</td>
<td>16.7</td>
<td>46.3</td>
<td>37</td>
</tr>
<tr>
<td>E-portfolio diverts me from patient care</td>
<td>9.1</td>
<td>58.2</td>
<td>20</td>
<td>12.7</td>
</tr>
<tr>
<td>My supervisors understand use of e-portfolio</td>
<td>21.8</td>
<td>49.1</td>
<td>29.1</td>
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</tr>
<tr>
<td>E-portfolios diverts me from other educational aims</td>
<td>1.8</td>
<td>29.1</td>
<td>43.6</td>
<td>25.5</td>
</tr>
<tr>
<td>E-portfolio enhances my training</td>
<td>14.5</td>
<td>61.8</td>
<td>20</td>
<td>3.6</td>
</tr>
<tr>
<td>E-portfolio highlights areas for development</td>
<td>10.9</td>
<td>40</td>
<td>45.5</td>
<td>3.6</td>
</tr>
<tr>
<td>E-portfolio causes me stress/anxiety</td>
<td>3.6</td>
<td>16.4</td>
<td>41.8</td>
<td>38.2</td>
</tr>
</tbody>
</table>

Figure 1. Table showing percentage of responses to each field. N=55

Discussion
The E-portfolio system leaves a large number of medical trainees unsatisfied. Despite its universal use, trainee doctors are concerned that they, and their supervisors, have had inadequate training in its utilisation. Trainee doctors often report having to use time outside of work to complete E-portfolio assessments. Many doctors report that E-portfolio diverts them from career development or in some cases, patient care. Similar concerns have
been reported in the use of other electronic assessment tools. Evidence suggests increased stress in junior doctors when compared to other professions, and levels of workplace anxiety are increasing. It is of concern that a significant number of junior doctors report that E-portfolio is a cause of stress and anxiety. There is scope to further investigate attitudes to E-portfolio by more complete assessment of time required to use the system and further analysis of what aspects of the system result in stress and anxiety.
Exploring faculty preparedness and capability for interprofessional learning in health and social practice education

J McKimm, D Brake, W Horne

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Background and Purpose

Over the next two years, an interprofessional learning (IPL) programme is being introduced into all health and social practice programmes at a large New Zealand tertiary institution, to better prepare students for collaborative professional practice. Key drivers for introducing IPL include the global shift towards IPL for health and social work professions as a way of delivering better and safer healthcare. The capability and willingness of faculty to develop and implement IPL is essential for the programme’s success. This study aims to identify the attitudes, preparedness, capacity and capability of academic teaching staff and clinical preceptors in health and social practice programmes towards IPL in order to inform staff development initiatives and involve staff in developing appropriate educational interventions.

Methodology

This is an action research project. Methods include questionnaire survey, interviews and focus groups aimed at eliciting baseline perceptions, preparedness and capability, introducing interventions (including a professional development programme and IPL initiatives) and then re-evaluating the faculty’s capability and perceptions. The questionnaire is based on a widely tested and validated student survey for IPL, the Readiness for Interprofessional Learning Scale (RIPLS) questionnaire. Following analysis of the questionnaire responses, a staff and educational development programme will be designed, strategies for addressing identified barriers will be determined (through focus groups and interviews) and staff will be invited to participate in developing IPL activities in mixed professional groups.

Results

Results from the survey and first stage focus groups and interviews will be presented as will the framework of the staff development programme and educational interventions.

Discussion and Conclusions

Faculty resistance to change and feelings of inadequacy to teach IPL have been identified as core barriers to implementing successful IPL initiatives. In the light of this, a participative, iterative approach will enable strategies and initiatives to be discussed and tested with participants, providing transferable information about attitudes and challenges concerned with implementing IPL from a range of professional perspectives. Reflecting change literature, identifying ‘champions’ and facilitating a culture shift with high involvement of faculty lies at the core of this project.

References

Foundation observation of teaching project – a developmental model of peer observation of teaching

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Introduction
Peer observation of teaching is important in the development of educators. The Foundation curriculum and the New Doctor specify teaching competencies that must be attained. We created a developmental model of peer observation of teaching to facilitate the achievement of teaching competencies for our foundation doctors and their development as educators. A secondary objective was the provision of bedside teaching for medical students.

Methods
A process for peer observation was created based on key features of faculty development. The project consisted of a large group teaching session followed by a pre-observation meeting, the observation of the teaching session, a post-observation debrief, writing of reflective and observer reports and group feedback sessions. The observers were medical education fellows, supported by the foundation faculty. The project was evaluated by completion of questionnaires and focus groups held with both foundation doctors and the students they taught, to provide triangulation.

Results
21 foundation doctors took part over one calendar year, 7 as part of a pilot, with 14 taking part in the main project. Overall, 8 undertook small group classroom teaching and 13 bedside teaching. All completed reflective reports on their teaching sessions. The second cohort of doctors (14/21) took part in three group feedback sessions following the observed teaching events. The medical education fellows chaired these sessions. The foundation doctors were encouraged to discuss areas they had found difficult or felt to be important. The themes discussed were recorded by a medical education fellow and disseminated to participants. The themes discussed included finding and consenting patients, developing a teaching plan, questioning styles, facilitation of feedback, creating action plans for future learning, encouraging interaction and group work techniques, dealing with quiet or disruptive learners and evaluating your teaching. Participants described the process as useful in their development as educators, citing specific examples of changes to their teaching practice. Medical students found the bedside teaching sessions useful and rated them as better or much better than their usual bedside teaching (17/18 students).

Discussion
The project achieved the primary objective of completing foundation doctors teaching competencies and the secondary objective of providing bedside teaching to final year medical students. The group feedback sessions provided an opportunity for the observers and participants to discuss important aspects of clinical teaching.

Conclusion
A structured program of observation of teaching can be used to demonstrate specific teaching competencies required by foundation doctors and provide additional benefits.
Awarding global scores in OSCEs: evaluation of a novel online examiner training resource

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Background and Purpose
OSCEs provide a reliable method of assessing aspects of clinical competency\(^1\). However concern has been voiced over the degree of examiner training\(^2\). The GMC has identified examiner training as a key area in the delivery of fair and reliable assessments\(^3\). In the UK the ‘modified borderline regression method’ has become the forerunner method of standard setting OSCEs\(^4\). In this feasibility project we aim to evaluate a novel online OSCE examiner training resource and its perceived impact on examiners awarding global scores in OSCEs.

Methodology
An online OSCE examiner training resource (www.med.qub.ac.uk/OSCE) was developed that aimed to improve examiners’ knowledge, and expected conduct, when examining in OSCEs. The resource allows examiners to award global scores to virtual OSCE stations and compare their scores (in an anonymised fashion) with others. 5 point likert scales were used to measure levels of perceived impact of the training resource. Thematic analysis was used to analyse reflective comments made by users on the utility of the training resource and the potential impact, if any, on future practice.

Results
78 examiners have used the resource to date. The vast majority of users either strongly agreed (54/78; 69.2%) or agreed (20/78; 25.6%) that the resource was of benefit in developing their examining skills. Pre- and post- confidence scores in awarding global scores increased from a mean of 2.3 to 4.3 after using the training resource. 73/78 (93.6%) of examiners either strongly agreed or agreed that comparing their global scores with others was of use and would change their future practice. Thematic analysis of users reflective comments indicated that examiners expressed a need to ‘pay more attention’ when observing candidates, improve their conceptualisation of the various global scores and pay more cogence to the level of the candidate. Users described that the resource helped them to identify training issues and provided impetus for changing future practice.

Discussion and Conclusions
The results of this feasibility project indicate that an online OSCE examiner training resource is greatly valued and perceived as beneficial by examiners. The resource appears to aid examiners in identifying areas of development in awarding global scores and encourages them to address these issues. Future work is planned to determine whether such an e-learning source has an impact on examiner variance in OSCEs and the potential cost savings of using such an online resource compared to face-to-face examiner training.

References
Enhancement of Student Learning in a Non English Language GP Consultation

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Background and Purpose
With continued net migration to the UK 1 and bilingual GPs, there remains a challenge to provide effective learning experiences for medical students in practices where a lot of consultations are in a non English language. Although there has been work utilising interpreters to improve communication for students, 2 non English speakers benefit from consultations with their GP in their own language. 3 In response to feedback from students in Manchester, we aimed to explore an effective system to improve the learning experience.

Methodology
A workshop entitled ‘Mind Your Language’ was devised with GP tutors and medical students as voluntary participants. It began with a simulated consultation in a non English language with actors taking on the roles of patient and GP. The participants observed from the perspective of a student. Group discussion followed in which their feelings as students were explored as well as potential difficulties in learning from the consultation. Possible solutions were agreed and informed the development of an educational protocol.

Results
The workshop was run three times with a total of 22 participants (20 GP tutors, 2 students). Participants reflected that they felt uncomfortable during the consultation due to uncertainty about whether the patient had consented to their involvement. They struggled to concentrate, with no understanding of the content or direction of the consultation.

Potential solutions to the problems included advanced planning by the practice with longer appointments and multilingual patient leaflets outlining teaching surgeries. Student induction should include briefing on the ethnicity and health beliefs of the population and the format of the surgery. Before the consultation starts, there should be explicit consent and explanation to the patient of why students were present. During the consultation there should be explanation of the consultation format, including regular summarising and engagement of the students. The patient should be invited to speak English when possible and the GP to mix in English words throughout. Learning objectives related to transcultural medicine should be generated both before and after the consultation.

Discussion and Conclusions
A workshop for GP tutors and students, using simulated patients and focused group discussion, resulted in the formulation of a protocol to help improve the learning experience of medical students during consultations in a non English language. The protocol has been shared with GP tutors in relevant practices; further study is ongoing to evaluate its impact.

References
Targeting Trainees – The Supervisors of the Future

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Background
Postgraduate deaneries are responsible for ensuring that doctors who deliver and assess medical education are fit for purpose and meet regulatory GMC Trainer Standards. In addition to supporting current Clinical and Educational Supervisors to achieve these standards, the North Western Deanery developed plans to provide training for all higher specialty trainees to Clinical Supervisor level, and to facilitate a pathway for all trainers to develop further expertise as medical educators and support career development.

Summary of Work
The deanery commissioned an innovative modular postgraduate certificate programme mapped to three educator roles: Clinical Supervisor, Educational Supervisor and Educational Lead. A key feature of the tender specification was ongoing collaboration with a university provider, including development, delivery, assessment and evaluation of the programme. The programme commenced in September 2009 and is delivered by blended learning methods, including online learning sets and workplace based activities. Around 250 higher specialty trainees per year have the opportunity to register for the Clinical Supervisor module.

Course Feedback
We were interested in students’ feedback and their experiences of the course. All students in the first two cohorts of Module 1: Teaching and Learning in the Medical Workplace (Clinical Supervisor Module) were invited to complete an anonymous online survey. They were asked for their feedback on aspects of the course including: online learning, the website interface, face-to-face tutorials and assignments.

Discussion
The data was analysed in order to find common themes within the feedback relating to the areas mentioned above, followed by their overall views on the course. To summarise, the majority of responders found the course enjoyable and rewarding, offering a great deal in particular to those interested in medical education. The considerable personal time commitment required was identified by many, but most would recommend the course to others. Through this initiative the Deanery has provided up to date comprehensive, flexible and interactive educator training to replace previous traditional didactic courses. Trainees have acquired knowledge and skills essential to perform as effective supervisors, but also been given the freedom and ability to develop as individual medical educators and pursue particular areas of medical education that best suit their interests and attributes.

References
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Is it time for Medicine to update its Facebook status? A study of the perceptions of social media in the medical profession

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Background and Purpose
The social networking website Facebook was founded 7 years ago and now has over 500 million active users. The sites privacy policy outlines that Facebook focuses on, “Giving people control over their experience so they can express themselves freely while knowing that their information is being shared in the way they intend.” This ethos relies heavily on members having the correct perceptions of how their information is shared. The purpose of this study was to establish and compare the extent and perceptions of Facebook use at different levels of career progression in the Severn Deanery.

Methodology
A pilot cross-sectional survey assessed in detail the use of Facebook and the privacy settings employed by 42 medical students, 20 foundation year doctors (FYDs) and 20 doctors of senior staff grade (SSGs). We also analysed awareness of current guidelines (University, NHS and GMC) and perceptions of online exposure and associated consequences.

Results
100% of both medical students and FYDs had Facebook whilst only 30% of SSGs were members. Of these, 41% of the students included personal details on their public ‘info page’ compared to 75% of FYDs and 50% of SSGs. 88% of the students reported viewing colleagues acting unprofessionally, this compared to 80% of FYDs and none of the SSGs. 76% of students, 90% of FYDs and 33% of SSGs perceived that their professional integrity was compromised by using Facebook. Perhaps most strikingly only 26% of students, 50% of FYDs and none of the SSGs were aware of any advice or guidelines specific to Facebook.

Discussion and Conclusion
This pilot study highlights the problems social networking poses with respect to professional behaviour for those born in to ‘generation Y’. It appears that medical professionals are not relating fitness to practice guidance with social networking and these findings indicate further and wider investigation. With changing demographic clear differences in the use and exposure on social networking sites such as Facebook are demonstrated. However, there is a lack of awareness of current guidelines at all career levels, highlighting the possible need for intervention in order to uphold the integrity of the profession, protect the doctor-patient relationship and perhaps even many careers.

References
Developing a faculty for delivering simulation based education

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Background
The Scottish Clinical Simulation Centre (SCSC) has a small core of permanent faculty members delivering a comprehensive range of simulation based medical education (SBME) courses. There are individuals interested in SBME who occasionally visit the centre to observe and participate in the running of courses along with these permanent faculty members. Until recently, activity and development of this “occasional faculty” has not been recorded, structured or quality managed.

Aim
To develop a faculty, through enhancing capacity and capability of the individuals currently visiting the SCSC in order to create new opportunities for delivery of high quality SBME. This will lead to:

- quality assurance of in-house educators
- a wider pool of faculty to run courses at the centre and,
- provision of faculty on a hub and spoke model for the many simulation hardware resources that lie unused in our hospitals.

Developing a faculty
The first step in the process was to design a portfolio for individuals to evidence their activity and development. This includes sections for setting learning objectives, recording courses attended, a reflective learning diary, and facilitation feedback (a custom made tool in addition to the Debriefing Assessment for Simulation in Healthcare-DASH student version). Indeed, a key part in the development is having experienced facilitators give feedback on performance, preferably using video after every course attended.

The SCSC offers a range of faculty development courses catering for different levels of experience and equipment sets. These courses are open to the whole of the UK, but individuals on the faculty development programme are encouraged to attend at appropriate times during their progress.

Quality assurance of the developing faculty
Participants on the faculty development programme will have 6 monthly appraisal meetings with their mentor to review progress and set new learning objectives. The end users in this case are the learners on our courses and we must have their evaluation of our product which is the developed faculty. This will be measured using the DASH-SV tool.

Evaluation of the development programme
The portfolio and framework for the programme has been reviewed and revised by SCSC permanent staff and also individuals interested in participating in the programme. We will look for structured feedback from developing faculty about the programme itself and there will be ongoing revisions.
Poorly performing tutors – meeting the challenge

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Background and Purpose
 Whilst there is evidence that tutors have a negligible effect on medical students performance ¹, negative impact of poorly performing tutors may have a psychological impact on students, raises issues of perceived inequity and damages Faculty credibility. Addressing poorly performing tutors can be difficult due to casual or no employment contract resulting in ambiguity in expectations and consequences of poor teaching. An often small pool of available tutors may place pressure on selection of appropriate tutors. These difficulties may result in avoidance of identifying and supporting poorly performing tutors. This study describes one Medical School’s generation of a policy for identifying, supporting and developing poorly performing tutors.

Methodology
 Over a 3-year period 96 different tutors were used to support the teaching of year 2 and year 3. Data was collected on tutors through peer reports and student feedback. Student survey data collected on tutor performance was analysed by 2 different methods: normative analysis (scores greater than the total mean plus 1 std) and criterion referenced. The results informed the generation of a process to identify and support poorly performing tutors.

Results
 Both methods identified the same under performing tutors. This process resulted in the generation of a standard that all tutors are required to attain. This standard will be embedded in the curriculum using the following process:

• Providing clear expectations to students and tutors.
• Collection and feedback of robust evaluation data.
• Optional support mechanisms available for all tutors.
• Compulsory, specific, timely, tailored support for poorly performing tutors.
• Monitoring of performance with clear time specific goals and consequence if not met.

Discussion and Conclusions
 An accurate way of assessing tutor ability has been developed, identifying standards expected of tutors in the curriculum. This will facilitate the identification and support of poorly performing tutors. This process will need to be monitored to determine whether this provides a supportive collegial environment for the development of tutors, whilst protecting the rights of students to appropriate quality teaching. Tensions exist between supporting tutors in need of development against selecting only tutors that fulfil the expected standards. A policy should reflect the culture of the institution and model a philosophy of inclusion and development of academic expertise rather than a philosophy of elitism and exclusion. Future work will determine how successful this approach has been in raising the standard whilst developing a community of teaching practice.

References
Mentoring in Undergraduate Medicine - What Do Students Need?

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Background and Purpose
The personal and professional needs of undergraduate medical students are influenced by a variety of local and national factors(1,2) and one-to-one support systems vary greatly.(3) The aim of this study was to explore key stakeholders’ experiences and perspectives of one such mentoring system to make recommendations that align the service with the personal and professional development needs of medical students.

Method
University of Edinburgh medical students and their mentors were recruited to participate in focus groups on a voluntary basis. Three focus groups, each with ten participants were held (one with students, two with mentors). Focus groups were transcribed, and content was thematically analysed. The thematic analysis informed the production of a questionnaire which explored frequency of contact, nature of current support provided by mentors and views on an effective service. The questionnaire was distributed electronically to all medical students and their mentors. Comparisons between student and mentor responses were made using Pearson’s Chi-squared test.

Results
68 out of 121 (56%) mentors and 334 out of 1205 (28%) students completed the questionnaire. 74% of student respondents reported having some form of contact with their mentor during the previous academic year, but only 37% had face to face meetings. 86% of students felt that it was important to have at least one face-to-face meeting per year, compared with only 63% of mentors (p<0.0005). The mentors’ pastoral, academic and career management support services were identified as important by both groups. 44% of mentors viewed pastoral support as extremely important but only 27% of students agreed (p=0.006). In contrast, 37% of students compared with 12% of mentors felt that academic support was extremely important (p<0.0005). 46% of students thought career support was extremely important in contrast to only 21% of mentors (p<0.0005). Both groups agreed that the characteristics of a good mentor included being empathic, supportive, approachable, and motivational.

Discussion and Conclusions
Results revealed a variety of student experiences and interesting differences between mentors and students on the relative importance of pastoral, academic and career support. Given that medical education is stressful,(4) it is essential to provide the type of support that students perceive as important in order to meet their personal and professional development needs. Edinburgh medical school is responding with a curriculum development strategy aimed at embedding the three components into the mentoring role. Annual appraisal meetings will be key to implementation.

References
Multi-source feedback for postgraduate medical educational supervisors: a qualitative analysis of free text responses

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**Background and Purpose**
Supervisors play a key role in the development of postgraduate medical trainees both in the oversight of their day-to-day clinical practice but also in the support and orchestration of their learning experiences, aims and objectives. The London Deanery - an organisation responsible for around 25% of the UK’s trainee population - has developed and evaluated a web-based multi-source feedback tool for educational supervisors. This presentation reports on the qualitative evaluation of free text feedback from trainees and trainers to explore content validity.

**Methodology**
The design of the multi-source feedback tool was informed by research commissioned from the Peninsula College of Medicine and Dentistry, which included a narrative review of the literature in supervision and focus groups with the key stakeholders; educational supervisors and trainees. The resulting instrument was subsequently piloted online within the London Deanery over a 3 month period. The instrument was launched to 3000 educational supervisors in July 2010. In September 2010 further analysis of live performance commenced including: examination of the performance of questionnaire items, consequential validity and content validity. Content validity was evaluated using data from 405 completed reports. 15% of the 405 completed reports were randomly selected in SPSS giving 62 reports from supervisors and 315 from trainees for detailed analysis. A qualitative content analysis of all free text comments pertaining to these reports was completed.

**Results/Impacts/Outcomes**
Key themes were identified: Educational supervisors overall scored well when assessed by their trainees but they generally scored themselves lower. Analysis of free text comments by trainers suggested a lack of confidence in their ability to support trainees effectively, but also appreciation of their strengths in relation to engagement with trainees. Positive feedback from trainees identified a broader range of strengths including organisational and clinical abilities. Negative feedback by trainees focused on interpersonal characteristics, weaknesses in feedback and support, although relatively few specific negative comments were made. A comparison of scores and qualitative comments is currently being undertaken.

**Conclusion and Discussion**
Initial uptake has proved promising with over 1000 supervisors activating their account in the first few weeks of release, 405 of whom received completed reports within three months. Triangulation between free text responses and quantitative scales clearly indicates content validity relating to positive challenge and support. Possible reasons for the relative paucity of negative comments both, qualitative and quantitative, will be explored.
Clinical Teaching Fellows -The Bristol Experience

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In 1999 the GMC published The Doctor as Teacher stating all doctors have an obligation to contribute to the training of others. Since then, medical education has developed into a specialty of its own, complete with a growing army of Clinical Teaching Fellows (CTF). These unique posts allow junior doctors to take time out from clinical training, either as an out-of-programme experience or between training posts, to pursue an interest in medical education. A survey in 2008 showed there were 77 posts available but barely a week goes by without a new post being advertised.

In Bristol, students rotate through academies based at hospitals throughout the region. These academies are individually responsible for delivering the Bristol curriculum. In 2004 the first CTF was appointed in North Bristol to facilitate the delivery of specialty tutorials. Since then other academies have developed the idea introducing their own CTFs. In 2006, Bath academy began using the idea with an emphasis on bedside teaching and clinical skills. There has been evolution with each successive iteration and the posts are becoming increasingly popular.

There are now 16 different CTF posts throughout most of the academies. Until 2010 each of these was independent of the other with no collaboration between academies, the introduction of a local CTF network this year aims to bring together the CTFs to share resources, experiences and ideas. Academies without CTFs are increasingly jealous of the resource and recognise the urgent need to appoint their own, with funding being the main barrier.

Even within Bristol there is a huge variety between posts, some are attached to specific specialties whereas others are more general. Each individual post has differing commitments to teaching, assessment and managerial duties and between 25-50% of each post remains clinical to allow CTFs to maintain their clinical skills. All posts also allow the CTF to undertake a Postgraduate Certificate in Teaching and Learning for Health Professionals.

These posts have a lot to offer to all involved and are particularly well received by undergraduates who are able to relate well with teachers only a few years ahead of them and the unique and recent clinical experience they offer.

We will describe the Bristol experience of using CTFs to aid delivery of the undergraduate curriculum, explore how the posts have advanced so far and consider the potential of future developments in this rapidly expanding part of medical education.

References
Open sharing of teaching materials – establishing high standards and a community of practice amongst medical education programme providers and beyond: the Accredited Clinical Teaching Open Resources (ACTOR) project

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Open Educational Resources (OER) are “teaching and learning materials that are freely available online for everyone to use”1. Several projects funded by the Joint Information Systems Committee (JISC) and others enable the sharing of such resources across many subject areas2,3. Staff and students can browse, download and reuse teaching materials made available by others, and contribute their own via the national repository Jorum4. Previous OER projects developed toolkits and guidelines for acknowledging copyright5 and for consenting patients and non-patients for educational purposes6. Such issues need to be understood by anyone sharing educational resources, and can complicate or even prevent the sharing of otherwise useful material. To become useful for the majority of teachers and learners, repositories need to grow more quickly whilst adhering to best practice. Facilitating this is a challenge but can be brought about through staff development, encouraging development of policies to support sharing, and role modelling best practice. The Accredited Clinical Teaching Open Resources (ACTOR) project7 is funded by the Higher Education Academy (HEA) and JISC to promote awareness of best practice in using OER, to encourage more widespread uptake of OER and the sharing of expertise and resources amongst providers of PG Certificate-, Diploma- and Masters'-level clinical/medical education programmes (‘PGCertClinEd’). We aim to influence a new generation of learners to adopt high standards of ‘digital professionalism’8 by enabling programme leaders to exemplify best practice when sharing their own copyrighted teaching materials, and communicating this to their students.

Six partners are leading ACTOR9 but all UK PGCertClinEd staff are welcome to participate. A key emphasis is on the effective use of OER in educational development. Other issues covered in workshops include managing copyright risks, informed consent and ethical principles, creation and sustainability of resources, the use of Web 2.0 technologies in sharing and development, and building a community committed to sharing. The educational resources will be mapped against the UK Professional Standards Framework (UK PSF)10 and the Academy of Medical Educators (AoME) professional standards11 to catalogue resources and identify gaps in provision.

This paper is an update on the project and will:
• raise awareness and understanding of OER, exploring relevant issues, challenges and best practice;
• illustrate tools for helping educators adopt OER;
• report on the workshops run during 2011;
• report on and discuss progress towards mapping teaching materials onto professional standards.

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Information-seeking practice in the workplace

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Background and Purpose
Medical information needed by practitioners has exploded. This study explores foundation trainees’ information-seeking practice in the workplace. It provides the broad context for an evaluation of the Wales Deanery Smartphone initiative (the “iDoc project”) and builds on a pilot study.¹

Methodology
As part of the iDoc project, discussion groups were held with over 175 trainee doctors across 15 sites. These informed development of our “information-seeking practice” questionnaire, distributed face-to-face with foundation year 2 (F2) trainees attending compulsory study days at six postgraduate centres across Wales in Spring 2011. Research ethics approval was obtained from Cardiff University (PGMDE 02/12/2010).

Results
We report data from 200 F2 trainees (43% male). The most frequently used information source in the workplace was ‘senior medical staff’ who were consulted on a daily basis by 81% of respondents. Peers and other staff in the medical/nursing team were also frequently used (consulted daily by 70% and 52% respectively). The internet and hardcopy textbooks/journals were used at least weekly (90% and 59% respectively). Electronic textbooks/journals were also accessed using a mobile device at least weekly by 34% of respondents. Our data indicates 52% used a mobile device for work purposes, most commonly an iPhone (n=64).

Choice of information source varied by gender: males made more use of electronic textbooks/journals via a mobile device (p<0.05). Preliminary analysis suggests further gender differences with more females consulting daily the internet, seniors and other colleagues. Early analysis also indicates that preference of information source varies by speciality, level of supervision and whether the trainee is on day or night shift. Outside the workplace the internet was the preferred choice of information source.

Discussion and Conclusions
A variety of information sources were used on a very regular basis. There were indications of gender differences in choice of resource. Notably over half used a mobile device and a third accessed electronic texts via Smartphones on at least a weekly basis. Variations in preferred information source raise implications for training: what guidance should F2s be provided? Should support be sensitive to gender, speciality, level of supervision and shift pattern? Is there an over-reliance on colleagues and should the use of other information sources be encouraged? This survey provides the context for exploring these and other questions.

Reference
The “CoRE-Values Grid” in practice: Percutaneous Endoscopic Gastrostomy and ethical decision-making

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Background and Purpose
Although Percutaneous Endoscopic Gastrostomy (PEG) often presents complex ethical challenges for clinicians, there is a lack of ethical guidance on this in the published literature. The CoRE-Values Compass and Grid is a new analytical framework, designed to help health professionals and medical learners identify the ethical dimensions inherent in clinical scenarios.¹ This new framework was tested as a decision-making tool, by applying it to two clinical cases involving PEG.

Methodology
The CoRE-Values Grid was used to analyse the ethical issues associated with two in-patients: a 24 year old tracheostomy-dependent male with severe hypoxic brain injury and an 80 year old male with a recovering brain injury following cardiac arrest. Both patients had a nasogastric tube in situ, and a decision on PEG insertion was outstanding. Each case was analysed independently by a general medical trainee and a Consultant Gastroenterologist, using the CoRe-Values Grid worksheet.

Results
Both doctors found the CoRe-Values Grid easy to use. The framework’s systematic consideration of all the contextual factors prompted the identification of issues that were not at first apparent, directing the team to explore, for example, the current legal and GMC position on withdrawal of nutrition. The process also demonstrated the need for a full cross-speciality multidisciplinary team (MDT) discussion, to take into account all the stakeholder values. The CoRE-Values Grid provided a helpful structure for both individual reflection and team discussion. Both doctors found the framework useful and educational. Using the model, one clinician (trainee) concluded that PEG was appropriate for one patient but not the other, and the other (Consultant) thought PEG appropriate for both patients. Overall, the Grid analysis facilitated a team discussion, leading to a decision to insert PEG for both patients.

Discussion and Conclusions
All related ethical issues must be considered prior to starting enteral feeding.² The CoRE-Values Grid provided a structure for the systematic identification of these crucial issues for each case. The difference in outcome for each clinician was due to the absence of an objective weighting system: instead, the Grid encouraged the identification of each clinician’s subjective perspective. Overall, the framework proved to be a simple, easy-to-use tool that facilitated the MDT decision-making process for these complex PEG cases. This suggests a broader applicability for the CoRE-Values Grid framework in the clinical and postgraduate educational context, as an aid to finding an ethical course of action for complex clinical cases.

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² Stroud M, Duncan H, Nightingale J. Guidelines for enteral feeding in adult hospital patients. Gut.2003;52(Suppl VII);vii1–vii12
Junior Doctors for Junior Doctors – ‘How to survive as a house officer?’: an example of peer-assisted learning

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Background and Purpose
The general consensus, both anecdotally and from literature, is that the transition from student to doctor is difficult, both in terms of roles, responsibilities and also emotionally. Consultants, and the new doctors themselves feel that medical graduates are not prepared for their new role1,2,3,4. Retrospectively, house officers value knowledge transferable to the workplace over material that repeats what they learnt for exams5. The improved preparedness of UK medical graduates may be due to an increased relevance of undergraduate teaching to medical practice6.

We wondered whether there was a role for peer-assisted learning (PAL) to aid preparation. We trialled an empathetic peer-led approach to teaching, not concentrating on any formal course curriculum, but on areas that newly qualified doctors thought would have been helpful to know prior to starting life as a doctor.

Methodology
A pilot lecture was given to incoming Foundation Year 1 (FY1) trainees at Homerton Hospital in 2008. We gathered information informally from colleagues and students concerning what they perceived was important to be taught/advised on prior to commencing life as a doctor. We received formal feedback and, consequently, designed and gave a peer-led morning programme for final year medical students to help facilitate the transition. The course was presented at Barts and the London Medical School to over 250 students in total from 2009 to 2010. Feedback questionnaires over 6 lectures (over 80% response rate) were processed qualitatively and quantitatively to assess the programme’s success.

Results
215 students provided feedback and 99% (213/215) agreed that the lecture addressed their needs, many citing that it provided them with information they would otherwise not have known or been too scared to ask about, and helped them feel more confident about the transition from student to FY1. 100% thought the content was appropriate and appreciated the incorporation of personal experiences. Several commented that they would like to see more such lectures in the final year curriculum.

Discussion and Conclusions
The success of the course speaks for itself and opens up many possibilities for PAL to help ease the transition from student to doctor. By providing a friendly peer-lead environment, the students were able to ask questions uninhibitedly. Trainees value most practical work-based skills over theoretical knowledge. Junior doctors are an underused resource in the continued advancement of integrated medical curricula, especially when it comes to preparation for practice.

References
Gender and Surgical Careers: how can we better support women in surgery?

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Background and Purpose
More than half of all current medical students are female. This has translated into proportional rises in the numbers of applicants, specialist trainees and consultants in many specialties, with the notable exception of surgery. The Royal College of Surgeons set a 2009 target for a 20% female surgical-consultant workforce – in 2010, it remains at 7%. Past research has attributed this difference to the nature of a career in surgery and lower career motivation among female graduates. This project addresses the problem within the context of Wenger’s Communities of Practice theory, hypothesising that women assume more peripheral identities within surgical communities of practice, ultimately resulting in attrition and under-representation.

This research will contribute to understanding the under-representation of women in surgery, which can be used to promote gender equality and equity of opportunity.

Methodology
The study uses semi-structured one-to-one interviews with a purposive cross-sectional sample of female medical students, trainees and consultants. Template Analysis was employed, which aims to further develop a pre-existing theoretical framework into one that represents grounding in the qualitative data. This contextual-constructivist approach is appropriate as it embraces the complexity of the research questions, while acknowledging the reflexive positioning of the investigator.

Results
Results from exploratory interviews suggest female surgeons assume peripheral participatory roles within surgery. Analysis using Wenger’s modes of belonging revealed that although female surgeons feel able to align their identities with the community of practice, they may be less able to imagine themselves as a full part of, and engage fully with the surgical community.

Discussion and Conclusions
Whilst female surgeons may accumulate expertise, the initial work suggests that their trajectory through the landscape of the surgical community of practice may impact on their level of participation. This may begin to explain the increased levels of non-participation within female surgical trainees.
Teaching the teachers of the future: what they want versus what we want

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Background and aims
The GMC has recommended that medical students learn to fulfil the educational duties of a doctor1. We have therefore introduced a compulsory one-week “Teaching Skills” course for all penultimate year medical students at Imperial College, London, which runs 12 times a year for 35 students. Integral to developing this course has been an investigation into what students hope to gain from the course and their attitudes towards being taught teaching skills.

Methodology
All students in the penultimate year were invited to complete a pre-course questionnaire exploring teaching experience and attitudes towards the course. At the start of the course students each recorded one hope and one fear on anonymous sticky notes which were collected and photographed for subsequent thematic analysis. During the course students were invited to make anonymous written recommendations for change on a daily evaluation form. At the end of the course this information was supplemented with discussion groups of participant volunteers. Quantitative results were analysed using Excel, descriptive statistics and Chi square test. Qualitative data was analysed using thematic analysis and coding and supported with quotations.

Results
Major themes to emerge were 1. Utility – students hoped the course would be useful but were concerned it would be a waste of time 2. Affective – students hoped the course would be enjoyable but were concerned it would be boring 3. Confidence/anxiety – students hoped to become more confident as teachers but were anxious about their ability to teach. A minority of students had specific ideas of teaching/learning strategies that they hoped to learn from a teaching skills course.

Student evaluations during the course indicated that most students found the course useful. They disliked sessions longer than 40 minutes duration or those where discussion with the lecturer or reflection dominated. They also disliked being taught things that they thought they already knew, particularly feedback.

Discussion and conclusions
Our data indicate that the major concern of the students is wasting time or feeling bored. This finding highlights potential tension between our attempts to deliver quality teaching with time for reflection, discussion and transformation and the students’ desire to finish everything as quickly as possible. We have addressed this conflict by

1. Providing opportunities for students to stretch themselves and discover their own areas for development
2. Reducing the duration of individual sessions
3. Increasing the variety of the teaching delivery methods to maintain their attention and reduce boredom

References
The Missing Link: Investigating usage variation in the NES Foundation Programme ePortfolio

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Background
Foundation Training is a postgraduate training programme used throughout the UK for newly qualified doctors. In this programme proficiency in defined competencies must be demonstrated in order to progress and ultimately be licensed to practice medicine. The NES Foundation ePortfolio is an online tool used to document progress though Foundation. One of the prime mechanisms for demonstrating proficiency is to map accumulated evidence forms (for example a work place based assessment) to a competency, a process known as linking. Before 2010 this linking process was voluntary, but has recently been made compulsory as part of the new 2010 Foundation Programme Curriculum.

Aims
This paper will investigate linkage activity and the changes that have occurred to the usage of this feature over the past three years, especially taking the introduction of a new curriculum into account.

Methods
Anonymised data on linkage in different areas of the UK were generated from the central ePortfolio database from the 08-09 and 09-10 training programmes. By comparing the total number of evidence items uploaded to the total number of links generated we can investigate linkage trends. This data set has recently been expanded to include data on the first six months of the 10-11 training program. In addition to the linkage data from the database a questionnaire has been developed to measure the attitudes of individuals towards linking in the ePortfolio and their understanding of the process. The questionnaire also contains questions to analyse learning style and approaches to work.

Results to date
Initial results show that there are differences in the rate and pattern of linking curriculum competencies to evidence items in different areas of the UK. Early feedback indicates that there are several influencing factors on linkage activity including the learning style of the trainee and approach of their supervisor.

Discussion
Given that the Foundation Programme is the same in all areas the reasons for the observed differences in linkage will reveal the extent to which the ePortfolio can flexibly support a range of approaches to formal learning and assessment. This research will enable the description of some of the attitudes and behaviours behind these regional variations. In the future it will inform best practice in both the design of the ePortfolio and in guidelines for usage by trainee doctors.
Teaching About Specific Subjects
Recognising and Responding to Acute Patient Illness and Deterioration (RRAPID) - Developing an Undergraduate Course

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Background
There is evidence to support the belief that many newly qualified doctors are inadequately trained to recognise and respond to acute patient illness \(^1,2,3\). Issues have been raised concerning communication and appropriately asking for senior medical help. It has been proposed that providing training opportunities at an earlier stage in undergraduate education may improve trainee confidence and provide them with an appropriate framework to approach such patients \(^4,5\). Working together with the University we have piloted a course to enable such learning opportunities to occur earlier in the curriculum.

Methodology
A total of 24 students were taught in two groups of 12 over five two hour sessions. Teaching consisted of tutorials followed by simulation based learning. Students were introduced to the ABCDE structured assessment of acutely ill patients \(^4\). They received further teaching on methods of communication, SBAR, (Situation, Background, Assessment, Recommendation) and the use of Modified Early Warning Score systems (MEWS).

Prior to attending the course the students were asked to fill out a simple questionnaire to assess their understanding \(^6\). Following the delivery of the course the students were asked to complete an evaluation. All medical students including those who did not have the opportunity to attend the RRAPID course were provided the opportunity to participate in a formative OSCE station.

Results
Pre-course testing demonstrated the students had little knowledge of key concepts in how to assess an acutely ill patient. Evaluation of the course was very positive. Participants stated the course was at an appropriate level for their training, had taught them how to systematically assess acutely ill patients, that it was important to summon help and should be run for all third years.

"Excellent course should definitely be done for all 3rd yrs. Scenarios demonstrate this well."

"It always felt as if the topics covered would be really useful in a real clinical setting."

"The RRAPID course was v. good as this is the type of situation where I would have panicked and wasted time. Now I have the knowledge of how to approach a situation such as this and have a system to follow."

Conclusions
The results from this pilot project were very encouraging and have led to the introduction of the course throughout the third-year medical student curriculum. Further work is ongoing to develop and deliver the course throughout the undergraduate curriculum.

References
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A new teaching forum to aid the promotion of vertical integration of basic and clinical sciences among third year medical students

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Background
The mastery of basic science concepts is central in the understanding of the biological and pathological processes of various diseases. However, the curricula of basic science education has often been criticized due to its emphasis on mere learning of facts with no apparent clinical relevance (1). The integration between clinical and basic sciences (vertical integration) is an important element in the medical curriculum because it aims to promote learning among students. We aimed to evaluate a new teaching forum designed to promote vertical integration (VI) of basic science concepts among third year medical students.

Methods
A new teaching forum, chaired and taught by Consultants from different specialties, was introduced. Each one hour session was structured as follows: 15 minutes student case presentation; 15 minutes direct patient questioning by audience; 30 minutes discussion of relevant anatomy / physiology / pharmacology topics and clinical management. After completing four sessions, students were asked to fill in a questionnaire to evaluate their learning experience using a Likert scale (1=strongly disagree, 6=strongly agree).

Results
60 completed questionnaires were analysed. 87% stated they prefer this form of teaching over traditional lectures and the presence of a real patient makes the learning experience more memorable. 88% found these sessions useful, 92% enjoyed attending them and 85% would like to have similar sessions in their curriculum. Nearly all students (97%) stated the topics covered contained sufficient details. However, 27% of the cohort did not understand the meaning of the term “vertical integration” and 20% also failed to understand the usefulness of VI in relation to their general training.

Conclusion
Overall, the students rated this new teaching forum positively. Since VI has the potential to stimulate deep and lifelong learning (2), it provides the foundations for a medical career. Such teaching forums link and revise key science topics to clinical scenarios and promote an understanding of disciplines (anatomy/physiology/pharmacology) that underpin clinical management. It is therefore important to ensure at the outset that students are aware of the concept of vertical integration and its clinical relevance in their future studies. We also believe that such style of teaching should be offered to “pre-clinical” students.

References
Planning and implementing core Global Health teaching – reflecting on a specific approach

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Background
A growing awareness of the need to develop a systematic approach to a global health curriculum was facilitated by the publication of Tomorrow’s Doctors 2009 (TD09). Prior to that, medical educators involved in public health and health promotion were actively pursuing this topic in core MBBS curricula and exploring ways of developing and integrating such topics. MEDSIN, the student body, were on the same trajectory and in one school we collaborated with regard to designing a feasible core option, alongside other global health non-core options. This paper describes the planning and implementation of this new core global health curriculum and based on data, lessons learnt.

Method
Tutors were invited to discuss a process and the content of a “global health” day for all phase 4 students (the penultimate year) using existing timetable structure associated with elective planning and portfolio requirements. Aims, learning outcomes and pragmatics were considered such as content, process and assessment. The Lancet was an important reference in guiding the team’s planning as were international issues around health inequalities.

Data were generated using survey monkey after the Global Health day in March 2010 and when students returned from electives in October. In addition a 1000 essay was required within their portfolio and these have been explored for themes emerging with regard to how students interpreted “global health”.

A cohort of 400 phase 4 students were expected to attend this event or if unable to access the resources virtually and all 480 were required to submit a portfolio which included a 1000 word essay.

Results
Approx 330 students attended and 123 responded to first survey and 102 to the second survey. A sample of 20 essays were analysed initially. The day was well received by students and anecdotally by facilitators. How close the day related to elective and assessment is possibly why student were on the whole satisfied. The day was seen as relevant, enjoyable, and timely.

Discussion
Assessment was shared by clinical tutors and moderators, many reported it an interesting task. We had found a way of integrating Global Health into an existing structure without disruption to Phase 4. The workshop titles and content may vary each year but given that TD09 requires Global Health, MBBS curricular planners in other medical schools may find utility in this approach.
Setting Standards for Here and Now - A Novel Approach to Teaching Professionalism

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Background and Purpose
Tomorrow’s Doctors places greater emphasis than ever before on the need for doctors to behave with ethical and legal principles. Indeed with claims and complaints against doctors increasing there is a compelling demand for effective teaching of professional behaviour. Despite numerous methods used to teach professionalism at medical schools only 18% of respondents in a study felt it was sufficient. Stern describes ‘setting of standards’ as the first of 3 steps in the learning of professionalism. Standards must, however, account for the continually changing circumstances and expectations of society. We describe here a novel method to meet these requirements.

Methodology
Four qualities relating to professional behaviour in clinicians (Excellence, Humanism, Accountability and Altruism) were used as descriptors under which clinicians were asked to provide authentic and relevant examples of undergraduate behaviour that are exemplary, or which constitute minor or major faults. Through consultation with junior and senior doctors a table of positive and negative examples was constructed, illustrating clinicians’ expectations of medical students. At undergraduate professional behaviour sessions, student groups construct their own, similar table of examples and are then presented with those of the clinicians. Reflective discussion comparing and contrasting examples from the two tables are used to explicate the meaning of professional behaviour.

Results
From early sessions with 3rd year undergraduates, ‘descriptor tables’ provide a fertile foundation for discussion. Students find the clinicians’ opinions clarifying, enlightening and often surprising. Areas of dispute exist regarding behaviour outside the hospital, including whether alcohol intoxication, use of illicit drugs and inappropriate statements on social network sites constitute minor or major faults.

Discussion and Conclusions
Methods aimed at clarifying the expectations upon students have varied from recital of the Hippocratic Oath to workshops on altruism but to our knowledge we describe a novel technique that utilizes authentic examples obtained from clinicians to illustrate the meaning of professionalism. Through reflection upon their own viewpoint in comparison to the clinicians’, students gain insight into their own behaviour. We hope to gain further experience and formal feedback from students on the effectiveness of this teaching tool, extending it to lower and higher years within the medical school. The presentation will show how our technique has the advantage of addressing behaviour specific to institutions and so takes account of the varying perception of professionalism with geography and time.

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An evaluation of the impact of the increase in undergraduate community based medical education at a UK Medical School

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In 1996 Liverpool University reformed its MBChB programme from a traditional course to one based on the recommendations in *Tomorrow's Doctors*¹. One of the recommendations was that General Practice (GP) or community based medical education should be increased and in Liverpool GP medical education went from a 3 week placement to approximately 25% of clinical attachments.

In 2000 a project was devised to evaluate curriculum reform. Initially, this involved evaluating the perceived competencies of the final two cohorts to graduate from the traditional medical curriculum (TMC) and the first two cohorts from the reformed medical curriculum (RMC) as first year postgraduates. In 2005, this was extended to evaluate the impact of curriculum reform beyond the first postgraduate year through interviews and questionnaires with the same four cohorts six years after graduation. This paper examines the views of TMC and RMC graduates about their undergraduate community based medical education six years after graduation.

There were two questionnaire variables pertaining to general practice. The questionnaires showed that the RMC graduates felt they were statistically significantly better prepared for understanding the relationship between primary and hospital care than TMC graduates. When assessing the amount of GP teaching they received, 64% of the TMC graduates felt their GP teaching was less than “about right” compared with only 8% of RMC graduates.

Each interviewee was asked specifically about their undergraduate GP teaching. 46 interviews took place with the final two cohorts from the TMC (including 13 GPs) during 2005 and 2006 and 45 interviews (including 18 GPs) took place with the RMC graduates from 2007-2009. The traditional graduates were divided about whether there should have been more GP exposure in their course and many said they had little knowledge about the relationship between primary and secondary care. The TMC GPs felt there were far too few community placements and many of the surgeons and hospital doctors displayed less favourable attitudes towards general practice. Generally, the RMC graduates thought it was beneficial to have a larger amount of community teaching and even those who felt it had been increased too much could appreciate the benefits of community attachments. The RMC graduates felt GP was useful for developing clinical skills and all graduates, including the hospital doctors felt they understood the relationship between primary and secondary care.

An increase in exposure to community based undergraduate medical education can change the way graduates perceive and understand General Practice.

Reference

¹ General Medical Council. *Tomorrow’s Doctors. Recommendations on Undergraduate Medical Education* London: GMC; 1993
Practical Prescribing – Two Ways to Help Senior Medical Students Prepare for Starting Work as a Doctor

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The Current Situation
There are many issues that face medical students as they make the transition to junior doctor. The one that seems to trouble students the most is that of prescribing. There is little opportunity to practice prescribing in a clinical setting as it is not something students are allowed to do. Therefore it is incumbent upon the medical school to find ways of teaching students to be safe prescribers that increase confidence and prepare students for medical practice. Presented here are two exercises designed to get students prescribing.

Written exercises
Current practice at the University of Leicester is to ask students to go to the wards and copy out drug charts into their workbooks. Students have expressed that it is more appropriate for junior students and does not provide the practice that senior students need. Therefore I have designed a series of clinical scenarios that ask the student to write management plans in both an inpatient and outpatient setting, then to prescribe drugs and fluids on NHS prescription charts. Topics covered include analgesia, fluid management, resuscitation, sepsis and use of blood products. The scenarios include practice at ordering investigations and managing drug side effects. These are designed to be realistic, so the student has to use the resources available such as the BNF and local guidelines and check their work with ward staff.

Simulation
I have also designed some short simulations to run in the general practice rotation that allow the student to practice forming and delivering a management plan after a consultation, including the opportunity to prescribe medications and order investigations as appropriate, as well as explaining the management and the medications to the patient. This allows direct feedback to be given to the student and allows errors in prescribing practice to be corrected in a safe environment.

Conclusion
With the possibility of a prescribing examination coming to all medical schools, this problem is an important one. No formal research has been conducted by the author into these issues and whether these exercises will help, though a study is being planned, but many students have commented that they feel underprepared. The feedback from students who have tried the written exercises has been excellent. The medical school has been receptive to these ideas and hopes to trial them in the next academic year.
Background and Purpose
Although operating sessions provide many learning opportunities, many students regard theatre as an unfamiliar environment yielding variable experiences. Lack of structure and clear objectives can limit student learning. Whilst some students remain poorly orientated and assume the role of a passive observer, evidence suggests those who show awareness of theatre protocol are likely to be welcomed into the theatre team, and actively explore learning opportunities. This study investigates the learning outcomes of 118 medical students in the gynaecological operating theatre.

Methodology
Based on feedback from previous MBChB students' gynaecological theatre experience, a twenty-two part written questionnaire was designed and piloted. The final version was then distributed to 118 students at the end of their gynaecology attachment. Areas of investigation were: awareness of learning objectives; knowledge and understanding; acquisition of clinical skills; understanding of process and procedures and professional development.

Results
117/118 (99%) students completed the questionnaire. 56% (51) of students were not aware of clear learning objectives for theatre attendance. 75% (88) of students felt acknowledged as part of the theatre team, and 73% (86) found the sessions beneficial to learning. The majority reported improved understanding of the consent process (89% (104)), the principles of surgery (97% (113)), and surgical risk (91% (107)). 91% (106) of students had been able to undertake supervised vaginal examinations, and 94% (110) students had been invited to scrub with the surgical team. Post-operative involvement with the patients was low (41% (48)), and few students were aware of discharge procedures (15% (18)). 91% (106) agreed familiarity with theatre etiquette and working within a multi-professional team helped them prepare for their foundation years.

Discussion and Conclusions
Students attended four gynaecological theatre sessions, and most felt included in the theatre team. Only 43% were aware of clear learning objectives. Whilst a significant proportion (27%) felt their time could have been more productively spent, the vast majority of students improved their clinical understanding, were able to consolidate skills, and learnt about patient consent and theatre processes. Theatre sessions tended to be viewed in isolation, with surprisingly few students involved in post-operative care. This study demonstrates gynaecology students not only improve their knowledge and clinical skills by attending theatre, but that they also gain understanding and exposure to team-working, patient consent, and professional attitudes. A more structured approach, with clearly stated objectives and tasks, might further improve student learning outcomes in the operating theatre.

References
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Teaching and Learning
A Novel 3D Stereoscopic Anatomy Tutorial

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Introduction
With continued criticism of the level of medical student anatomy knowledge, further investigation into new adjuncts for anatomy teaching seems appropriate\(^{(1,2)}\). To this end we created a 3D stereoscopic tutorial, using CT scan data from living patients, to bridge the teaching of anatomy and pathology.

Methods
Anonymised CT scan scans were collected of a normal aorta and a ruptured abdominal aortic aneurysm. These scans were rendered into 3D stereoscopic images using the open-source software OsgVolume. These images were then annotated with interactive labels and buttons to access information on aortic anatomy and abdominal aortic aneurysms within the open-source Present3D software. The tutorial was designed to fulfil the learning objectives of the anatomy and vascular components of the Aberdeen Medical School curriculum. A sample of 8 fourth year students viewed the tutorial and gave feedback.

Student Feedback
Their initial impressions were unanimously positive. They found the anatomy easier to visualise and the learning objectives clearer with only clinically relevant information being included. They also found the small group teaching aspect effective, making for a more interactive learning experience. The students highlighted area of anatomy such as upper and lower limb musculature and the vasculature of the brain for future 3D visualisation. They also expressed a view that the technology would be useful if used as a student directed, self study resource.

Discussion
The technology has the exciting potential to make full use of the extensive radiographic libraries in hospitals for medical undergraduate teaching. The computer software, however, has some limitations at present. OsgVolume is not able to effectively distinguish tissues of very similar densities. Furthermore, not all pathologies or tissues are amenable to CT scanning of a high enough resolution for presentation. The software continues to advance, however, and is becoming compatible with MRI and as such the potential uses of this technology should continue to improve. Despite these limitations the software has proven to be effective at producing extremely high quality images that are of use for medical undergraduate teaching.

References

“Live in fear”: a multi-centre qualitative study of medical student abuse

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Introduction

Previous medical student abuse research has employed quantitative surveys that fail to explore fully the factors thought to contribute to medical student abuse and students’ actions in the face of abuse.1,2 The current study aimed to examine medical student abuse narratives to identify types of perceived abuse, factors cited by students as contributing to abuse and students’ actions at the time of abuse (inaction or resistance).

Methods

We conducted a qualitative design employing 22 individual and 32 group interviews to elicit personal narratives of professionalism dilemmas from 200 medical students at two five-year undergraduate and one four-year graduate entry programmes (England, Wales, and Australia).3,4 We conducted a thematic analysis of abuse narratives.

Results

Of 833 professional dilemma narratives, 86 (10%) involved perceived medical student abuse. Within participants’ narratives of abuse events they mostly reported covert status-related abuse, direct verbal abuse, and sexual harassment and discrimination. Perpetrators reported were typically male; recipients typically female. Abuse most commonly occurred in the hospital and perpetrators reported were mostly doctors. Although some narrators described multiple factors contributing to abuse (individual, work and/or organisation), most cited individual factors. Despite the abuse typically being recounted with negative emotion, few participants reported resisting at the time of abuse by challenging or reporting the perpetrator. Participants gave a variety of reasons for this inaction (e.g. anxiety about receiving bad marks from the perpetrator) and for resisting (e.g. the abuse was affecting their education negatively).

Discussion

Although narratives focus predominantly on individual factors contributing to abuse and responses to abuse, we need to focus on the dynamic interplay between individual and organisational factors to combat abuse.5 We describe several opportunities to mitigate this continuing scar on the conscience of the profession.

References

"What do you think the problem is there?" Enacting and resisting power in general practice bedside teaching encounters

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Introduction
Bedside teaching is essential for helping students develop their clinical and communication skills, reasoning and professionalism.¹ Bedside teaching encounters (BTEs) involve the 'learning triad' of patient, doctor and student.² Although previous research has examined this triadic interaction within UK teaching hospitals,²-⁴ no research has examined student-patient-tutor interaction within general practice using videotaped observation. Furthermore, although we have examined the negotiation of power within hospital BTEs,⁴ we have not yet examined how power is negotiated within general practice BTEs including the importance of non-verbal communication.

Methods
Using a Foucauldian perspective,⁵ the current study examines how power is enacted and resisted during diverse activities within seven general practice BTEs in New South Wales, Australia. We employed audio and/or videotaped observations of BTEs with short debrief interviews afterwards. Participating in these seven BTEs are three general practitioners (one male, two female), two female third-year medical students (one from an undergraduate programme and another from a graduate-entry programme), one female GP trainee, and seven female patients accompanied by various significant others. We are analysing the observational and interview data using thematic and discourse analyses.²-⁴

Results
Preliminary analyses by three researchers (two social scientists and one clinician) demonstrate that power is negotiated throughout BTEs via linguistic, paralinguistic and non-verbal communication. In terms of language, participants negotiate power by asking and responding to questions, giving orders and advice, through strategic uses of names and pronouns and through medical or health belief talk. Participants enacted and resisted power through paralinguistic strategies such as laughter, interruptions, and changes in pace and volume of talk. Finally, participants negotiated power through their non-verbal communication, including their physical positioning within the BTE and their possession/control of medical artefacts such as the sphygmomanometer, stethoscope and computer.

Discussion
Although some of these findings support our earlier work²-⁴, these results extend previous studies within the hospital setting particularly through the examination of videotaped non-verbal communication. We encourage GP tutors and students to reflect critically on their communication within BTEs and how their communication both enacts and resists power. Without such critical reflection it may be impossible for them to decide whether they should alter their communication and if so, how.

References


Does the same undergraduate medical curriculum, delivered via two distinct parent institutions, result in graduates with measurably different attitudes and skills?

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Introduction
July 2011 will see the graduation of the first cohort of medical students educated by Lancaster University (n = 32). However, whilst these students have completed all of their five years of study at Lancaster, they have followed the University of Liverpool’s medical curriculum and been assessed as part of the Liverpool student body. This first graduating cohort provides a unique opportunity to see if the small cohort of Lancaster-based students have different attitudes and skills compared to their Liverpool-based counterparts who make up a much larger cohort. An increasing number of institutions around the world are delivering medical education across more than one site, and the impact that an individual setting may have on students is of importance to medical educators. If the Lancaster and Liverpool “learning environments” result in students with different attitudes and skills, then it might be possible to harness positive aspects of this for curriculum development.

Aim and objectives
The overall aim of this work is to explore the question “Does the same undergraduate medical curriculum, delivered via two distinct parent institutions, result in graduates with measurably different attitudes and skills?”.

The objectives are:
1. To review the literature on multi-site medical education, the undergraduate medical curriculum, student attitudes, and the influence of learning environments on students.
2. To compare Lancaster and Liverpool students’ attitudes towards their learning environment, communication skills, and the doctor-patient relationship.
3. To compare Lancaster and Liverpool students’ exam performance over a number of domains.
4. To make suggestions for further work to be done in this area and recommendations for the two Universities.

Methods
Full ethical approval will be obtained from both universities before starting the study. This study will use a quantitative approach, utilising three well-established measurement tools to measure the following:

- Doctor-patient relationships – Patient-Practitioner Orientation Scale (PPOS)
- Communication skills – Communication Skills Attitude Scale (CSAS)
- Learning environment – Dundee Ready Education Environment Measure (DREEM)
- Exam performance – written and clinical exam (OSCE) results

Students in their final year of study at Lancaster will be recruited using an opportunistic strategy that will aim to capture all students. A representative cohort from the final year at Liverpool will also be recruited for comparison.

Future work
If this work identifies quantifiable differences in the medical students graduating from Lancaster and Liverpool Universities in 2011, then this topic will be explored further in the future, using focus groups.
Exploring the Map of Medicines potential in undergraduate medical education

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Background
Map of Medicine is a web-based knowledge resource depicting evidence-based pathways of patient care. Recent publications suggest a role for the Map of Medicine as a training tool in postgraduate education.

Aim
The aim of this study was to explore the potential of the Map of Medicine to enhance undergraduate medical education.

Methods
A mixed-method study including a survey of UK medical schools, and the embedding of the resource at one medical school and the evaluation of its impact.

Results
The survey found that only 1 of 23 medical schools were using the Map of Medicine in their undergraduate curriculum. The Peninsula Medical School students’ reaction to the resource was extremely positive. Students liked the Map of Medicine’s navigability and help in accessing reliable information. Use of the resource by students grew steadily throughout the 7 month period of the study and peaked at 595 sessions a month. There was evidence that usage was directly linked to curricular events, particularly problem-based learning tutorials and medical knowledge assessments.

Conclusions
There is clear potential for the Map of Medicine in undergraduate medical education and a short active period of resource promotion led to its embedding within routine learning practice.
Evaluation of a pilot project to introduce the Ambulatory Care Environment into Medical Student Teaching

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Background and purpose
The recent concentration of medical services in outpatient-based practice (ambulatory care) has reduced ward-based medical student exposure to many of the index conditions in the undergraduate curriculum1. Similarly, as the duration of in-patient stay has declined sharply, the opportunities for traditional ward-based clinical teaching have declined2-4. Against this background, new strategies for undergraduate clinical education must be sought. The pre-operative assessment of patient fitness for surgery usually takes place on a date prior to their hospital admission. These patients provide a currently underutilised learning opportunity for students to practice history-taking, physical examination, and basic practical skills (e.g. venepuncture). We sought to identify whether the addition of a short, intensive period of supervised practice within the pre-assessment clinic enhanced the learning experience and subsequent performance of medical students on ward-based surgical attachments.

Method
48 3rd-year Medical Students attended the Pre-Operative Assessment Clinic (POAC), Northern General Hospital, Sheffield, in groups of two for two days. Here, they received intensive experience in history-taking, physical examination and clinical skills. Students were taught by a medically-qualified practice-based teacher and received immediate feedback on their performance. To evaluate the effectiveness and feasibility of this teaching, a mixed methods approach was employed. Students, staff and patients completed questionnaires and focus groups were convened for students. Thematic analysis was applied to the focus group material. Student scores in mini-Clinical Evaluation Exercises (mini-CEX) and the End-of-year OSCE were compared with peers not attending the POAC.

Results
Students reported that the POAC was a highly-satisfactory location for them to receive teaching, with a very appropriate and varied case-mix, high patient throughput and excellent facilities. Students reported high-quality teaching, extensive direct observation and feedback and increased confidence in clinical skills. Patient-satisfaction with participation was high and clinic staff reported maintenance of clinical productivity and efficiency. No significant effect was seen on student performance in the mini-CEX or OSCE, although anecdotally, teachers reported increased confidence and ability amongst participants.

Conclusions
The addition of the Ambulatory Care Environment to Medical Student teaching offers significant advantages over exclusively ward-based attachments in terms of facilities, case-exposure and opportunities for observation and feedback. High-quality teaching can be intensively delivered with no significant detrimental effect on clinic productivity or efficiency. The lack of measureable effect on student performance in assessments may reflect the small sample size studied and/or the limited sensitivity of the assessment tools employed to detect subtle differences in performance between candidates5.

References
Leicester Foundation Doctors’ Journal Club: a platform for developing research skills?

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Background
The Foundation Programme curriculum outlines a set of research-themed competencies to be gained by foundation doctors. Evidence suggests that journal clubs are an effective mode of research skills training.

Leicester Foundation Doctors Journal Club was set up by a group of F1 doctors in September 2009 to address research-themed competencies. It also aims to provide an informal forum for debate and dissemination of information. The club meets monthly and is facilitated by a public health registrar with an interest in medical education.

Methodology
We aimed to assess the need for a journal club, and perceived knowledge and research skills of foundation doctors. We designed two Likert scale questionnaires based on the research themed competencies in the 2009 Foundation Programme curriculum. Questionnaire 1 assessed how Leicester foundation doctors perceive their research skills and knowledge. Questionnaire 2 assessed the perceived impact that attendance had on doctors’ knowledge and research skills.

Results
Questionnaire 1: sixty journal-club naive F1 doctors completed a 7-item questionnaire. On a scale of 1-5 (1=poor, 5=excellent), the majority (range 58.4% to 73.4%) rated their research skills as a 2 or 3 out of 5. Of those questioned, 95% stated a need for more formal research skills training as part of the foundation programme.

Questionnaire 2: eleven journal club attendees completed a 6-item feedback questionnaire. On a scale of 1-5 (1=much worse, 5=much better) the majority (range 72.7% to 100%) rated their research skills as a 4 or 5 out of 5. Respondent’s attendance ranged from one to five sessions.

Conclusion
The doctors who completed our survey in Leicester, feel there is a need for formal research skills training as part of the foundation programme. Our peer-led journal club with facilitation from an enthusiastic senior colleague provides an effective and enjoyable platform for improving the confidence of foundation doctors with regards to research skills. The challenges we have encountered have included maintaining attendance at an extracurricular academic activity and finding appropriate facilitators, issues not exclusive to our journal club. Given the working pattern of foundation doctors, finding a mutually convenient time to meet is difficult. Hence, if a journal club is to survive, a core group of dedicated individuals who endeavour to attend every session is vital. Finally, we have found that rather than invite a different facilitator to each session, the support of one experienced individual over a sustained period of time has been invaluable.

References
Respecting and Promoting Religious and Cultural Diversity

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Background and Purpose
The GMC has issued supplementary guidance on *Personal Beliefs in Medical Practice*\(^1\) to give more detailed advice to doctors on how to comply with principles laid out in *Good Medical Practice*\(^2\). Students often enter medicine with a diverse range of beliefs which may impact how they perceive and deal with some aspects of their training. Professional standards require that all doctors are able to make the care of the patient their first concern, so students need opportunities to reflect upon and develop this ability.

Methodology
Using focus groups, students were asked to develop guidance for members of their faith group on how to adhere to religious requirements whilst at the same time adhering to University regulations and professional guidance as laid out by the GMC. The guidance was presented to the student welfare committee and the curriculum design and implementation committees to check for compatibility with the professional requirements of completing the medical degree.

Results
Following the focus groups, Jewish and Muslim students produced guidance documents\(^3\) for members of their faith groups. The guidance represents a full range of views across the spectrum of the faith community through all five years of the course. The guidance covers issues such as clothing, gender interactions, prayer times during learning activities, scheduling of examinations on religious holidays. The guidance is now available for all students and members of staff, both within the medical school and on clinical placements.

Discussion and Conclusion
The students were very committed to this project because it provided an opportunity to examine their own beliefs and consider them within the context of their future career. They also valued the flexibility and respect shown to them by members of staff who assisted in this project. It is important that students have opportunities to develop professional skills and attitudes\(^4\). One such skill is being reflective about one’s own beliefs and values, and considering these within the requirement to make the care of the patient the first concern\(^5\). Undergraduate educators should make provision for students from diverse religious and cultural backgrounds to examine their own beliefs and ensure they are fit to practice medicine upon graduation.

References
Poor knowledge and confidence in prescribing IV fluids in FY1 doctors is a national problem

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Background and Purpose

The prescribing of intravenous (IV) fluids is a fundamental task in the care of the surgical patient. The inappropriate prescribing of IV fluids can lead to significant morbidity and mortality in the post-operative period. Despite this, the task of prescribing IV fluids is commonly left to the most junior member of the surgical team. The aims of this study were to examine the relationship between knowledge and confidence of FY1 doctors in prescribing IV fluids and geographical location.

Methodology

Using foundation programme teaching sessions, we conducted a questionnaire based study assessing confidence and knowledge of foundation doctors in their first post of FY1 at 4 different centres; Edinburgh, Glasgow, Cardiff and Newcastle in chronological order. The questionnaire assessed confidence, using a scale of 1 (not confident) through to 5 (confident), in prescribing a range of different fluid preparations and 10 single best answer (SBA) format questions assessed knowledge. Questions assessed the knowledge domains of IV fluid preparations, fluid electrolyte homeostasis and clinical assessment.

Results

One hundred and seventy seven doctors were studied across the 4 centres. 49 (27.7%) from Edinburgh, 86 (48.6%) from Glasgow, 24 (13.6%) from Cardiff and 18 (10.2%) from Newcastle. Confidence was poor, with the majority of Edinburgh and Glasgow doctors giving 3/5 and the majority of Cardiff and Newcastle doctors giving 4/5. Overall scores in the spot test were poor in every region; Edinburgh mean of 6.20 (range 1–9), Glasgow mean 4.84 (range 0–8), Cardiff 3.96 (range 1-8) and Newcastle mean 4.72 (range 0–8). Of interest, the choice of incorrect options in the SBA questions relating to IV fluid preparation was similar between all 4 regions.

Discussion and Conclusions

The results of this study show that FY1 doctors lack confidence, and most importantly, the knowledge to adequately prescribe IV fluids in a range of clinical settings. Similar findings have been reported previously5, however, our relatively large study suggests this may be a national problem. Of interest, the choice of incorrect answers were similar between regions, this may represent poor undergraduate teaching rather than doctor performance in the test. Further efforts are needed to improve the quality of undergraduate and postgraduate teaching of fluid homeostasis, patient assessment and IV fluid prescribing.

References

The Industrialisation of Medical Education? Exploring Neoliberal influences within Tomorrow’s Doctors Policy 2009

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Background
No policy is ever created in isolation (Bowe, 1992; Taylor, 1997), but in part, TD 2009 contributes to the redefining of what it is ‘to be a professional’ and to ‘be’ a doctor. This presentation examines some potential implications for the human aspects of practice and questions whether we seek to ‘inspire relations of authority, obedience and orderly discipline’ in our teaching, suitable for supervised, compliant industrial-style workers, or to ‘encourage independence, self-reliance, creativity and initiative’ in our students (Burbules, 1994, p. 3618).

Methodology
This textual analysis uses ‘The Policy Cycle’ (Bowe, 1992) to explore the context of influence, practice and political strategy revealing dominant ideologies, discourse and technologies supported by this document.

Results
This document embodies multiple authors and positions. These range from neoliberal priorities of the managerial including efforts towards standardisation, accountability and performativity (Ball, 2008) to more liberal attempts at patient-orientated learning and an appreciation of the complexity and uncertainty within medical practice (GMC, 2009). TD 2009 responds, in part, to a discourse of derision arising since the publication of TD 1993, surrounding the inadequacy of knowledge, particularly science-based aspects of the curriculum and other widely publicised medical ‘scandals’ challenging the trust placed in doctors.

This presentation argues that, despite its presence in TD 2009, it is extremely challenging to successfully develop patient-based learning within the existing neoliberal constraints. These include the overall structure with an emphasis upon outcome and specifying the particular, competency-based learning, simulation and patient safety, potentially undermining the importance of human interaction and relationships in medical education, conceptualising the individual as potential ‘wrong-doer’, contrasting machine-like reliability. This positions the locus of control (and perhaps some responsibility) external to the professional, and patients’ trust in professional regulators, rather than the individual practitioner.

Discussion and Conclusion
Documents range in their nature as ‘readerly’ or ‘writerly’ (Belsey, 1980; Bowe, 1992) and desire to control the space of contextual interpretation. Although in parts more akin to a curriculum (Apple, 2006), this document illustrates problematic tensions in designing policy to control the unique and individual nature of practice (phronesis) (Aristotle, 1953; Beresford, 1991). It also highlights the often ignored, but powerful embodiment of ideologies, through creating and defining language meaning (Wittgenstein, 1953). As teachers, this places collective and individual responsibility to develop professional reflexivity in order to understand and consider our preferred ambitions and language engagement (Rizvi, 2007) in our educational endeavours supporting tomorrow’s doctors.

References
How medical students develop their professional identity in relation to their experience of uncertainty in decision-making during undergraduate general practice placements: a narrative inquiry

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Background
If we define professional learning not just as what we do, but who we are (Moore, 2004), then we are able to define professionalism, not just in behavioural terms of competency achievement, but an articulation of the internal processes affecting action, or poiesis (Dunne, 2007). Within a constructivist epistemology, this becomes a process of resolving the self (or habitus) in relation to wider influence (the field) (Bourdieu, 1993; Brosnan, 2009).

Method
This study uses narrative reflective diaries and interview to explore the meaning which students attribute to their experience (Bruner, 1990; Kakkori, 2002). Narrating experience, and constructing meaning from that experience (Wittgenstein, 1953), is core to the development of professional identity. Through stories, we are constantly producing an evolving expression of culture (Langellier, 2004), in which we are situated.

Results
This presentation will share details of analysis. Transcripts have been annotated as for discourse analysis (Bailey, 2008) and are interrogated using performative narrative analysis (Langellier, 2004). This includes reflexive awareness of the strategic nature of performance to another and includes embodiment, situation, discursive regularities, and legitimisation and critique (Langellier, 1989). Emerging findings will be presented, including students’ perceptions of professionalism, their negotiations of emotion as professionally relevant, the influence of role models upon decision-making in uncertainty and the tension between personal and objective engagement in professional interactions.

Discussion and Conclusion
These findings may help us to consider the importance of undergraduate teaching in primary care, particularly the complexity of learning which is taking place. It may help support elements of teaching to explore decision-making more fully with students and make articulation and exploration of decision-making processes more explicit during patient-based teaching. While acknowledging the breadth of uncertainty which students experience, this study illustrates the wide range of resources which students can draw upon to inform their development as medical professionals.

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Foundation Doctor as Teacher

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Background
Teaching is central to doctoring; and guidance from several medical bodies including the General Medical Council¹ and the UK Foundation Programme Organisation² is putting increasing emphasis on the involvement of doctors at all levels, including those who have just qualified, in the training of medical students. To fit the increased requirement for Foundation training posts with academic opportunities, one of the traditional training tracks at Royal Bolton Hospital was converted to academic, specialising in Medical Education. This paper outlines the experiences of the first 12 months of the Bolton track beginning August 2009.

Methodology
A foundation-doctor-led teaching program for the 3rd year medical students was set-up, focusing on the skills required for the Heart, Lungs and Blood module OSCE at Manchester Medical School. Each doctor was required to write a lesson plan, presentation and if possible a hand-out. Feedback was collected from each session, assessing the relevance of the topic, the format of the teaching and if the students would recommend the session to colleagues.

Results
A total of 16 Foundation-doctor-led sessions were held, with 6-12 3rd year medical students in attendance. Overall 103 feedback responses were collected. None of the sessions were graded as poor for relevance or format of the teaching. Responses showed that sessions were considered very relevant (92.2%) and that the format of teaching was very appropriate (89.3%). 99.0% of the feedback would recommend the session for attendance by colleagues.

Discussion and Conclusions
Foundation doctors can provide effective teaching to 3rd year medical students, even without being trained in teaching techniques. Motivation to teach appears to stem from a combination of enjoying working with students and feeling a responsibility towards supporting their training³, and recognition of benefits to their own progression as a clinician. By providing the organisation of the timetable, feedback and other administrative matters, it was possible to engage several junior doctors who were enthusiastic about hands-on teaching. It doesn’t seem necessary for junior doctors to have training on teaching and learning methods for them to provide effective teaching, if they are enthusiastic about it. The real challenge may be involving those doctors who have less or no interest in teaching and checking the quality of teaching this group provides.

References
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Safe and Effective Clinical Outcomes (SECO) clinics: an innovative use of simulation

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Background and purpose
Simulation has traditionally been limited to students practising consultations and/or procedural skills while being observed. They rarely get the chance to take responsibility for the whole consultation (including diagnosis, examination and management of patients). Simulated primary care clinics designed around safe and effective clinical outcomes (SECO), give senior students the chance to enhance their clinical reasoning skills, take full responsibility for their decisions and develop safe practice. SECO clinics extend simulation by allowing:

- unobserved, true-to-life patient encounters in a simulated general practice
- a focus on the outcomes of the consultation
- open access to resources (texts, internet or phone advice from a senior colleague)
- student control of time management
- formative assessment which aligns clinical teaching, learning and future professional practice

Methodology
Student evaluation using a combination of Likert item ratings and free text was undertaken of four SECO clinics in the following six domains; learning, relevance for general practice, ‘red flag’ recognition, seeking advice, consultation skills and patient management. 90% (71) 5th yr students completed the form and one cohort of 4th year students (19) was also sampled.

Results
93% of students rated the SECO experience as ‘definitely valuable’ (rating 1) and in all domains the rating was between 1 and 2. Free text comments mentioned the gains of practising ‘putting it all together’ and educating patients effectively. The emphasis on ‘safe’ clinical outcomes, recognition of ‘red flag’ symptoms and signs, and the chance to look things up without time limitations was appreciated. Students liked working in pairs and having telephone access to a senior colleague to check their clinical reasoning skills and patient management. Many students mentioned the value of having to deal with real life problems in individuals. The majority of students wanted more SECO clinics and an extension of the experience into other specialties besides primary care.

Discussion and conclusions
The SECO clinic experience is unique in emphasising outcomes for the patient, rather than the process by which these outcomes were obtained. This use of simulation appears to be an excellent way to encourage clinical reasoning skills and promote safe practice. Discussion points are:

- How we can we research this use of simulation further and evaluate its use with senior medical students?
- What are the resource implications of running SECO simulated patient clinics?
- How might we extend the SECO concept in medical education?

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How do medical students make ethical decisions? A pilot study

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Background and purpose
Ethics is an important part of the medical school curriculum. In the UK, the General Medical Council states that graduating doctors must ‘behave according to ethical and legal principles’ and ‘understand (their) ethical responsibilities’. Internationally there is still much debate around the best way to teach and assess ethics. Those involved with curriculum development may benefit from having a greater understanding of the process of ethical reasoning that a student executes on encountering a dilemma.

Methodology
All first and second year medical students from the University of Nottingham were invited to take part in an on-line questionnaire. Students were asked to choose what they would do in seven situations which focused on clinical or moral dilemmas. Some cases required the student to be in the role of a doctor, and others were based on situations that the student may experience currently. Students were invited to divulge their reasoning processes in free-text format. A focus group was convened from the participant pool to discuss the questionnaire, and to further explore students’ ethical reasoning.

Results
Ninety three students responded to the questionnaire. Sixty four completed all of the questions, giving an actual response rate of 12% (64/515). The focus group comprised seven students, who explored ethical reasoning and discussed the questionnaire survey. Data from the focus group and survey are now being analysed using a constant comparative method to look for emergent themes.

Discussion and conclusions
Medical students are expected to graduate with a working knowledge of ethical reasoning. Students also face moral and clinical dilemmas before they graduate and must learn to navigate these dilemmas, coming to a decision that they can justify to others, as well as to themselves. Gaining a greater understanding of the thought processes executed by students at an early stage in their career will help those involved in curriculum planning to facilitate the teaching and exploration of ethics. It may be useful to develop and expand the survey tool for other groups, such as clinical medical students and qualified doctors to explore the development of the reasoning process.

References
Using virtual patients to make statistics and epidemiology clinically relevant to medical students

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Background and Purpose
Statistics and epidemiology are traditionally perceived by students as being difficult subjects to learn. They feel that the topic is dry, boring and difficult to understand (Moffat, Sinclair et al. 2004). This is supported by recent student evaluation of the epidemiology and statistics teaching in Cardiff University. Students comment that they find the subject difficult and frequently request more online resources and revision aids.

The use of virtual patients as a learning aid is becoming increasingly commonplace within medical education (Ellaway, Poulton et al. 2009). We felt that a virtual patient involving clinical epidemiology and statistics may not only be useful to our students as a revision tool but also help students to see the practical and clinical relevance of statistics and epidemiology and stimulate their interest in the topic.

Methodology
A virtual patient which included summary of a paper and statistics and epidemiology based questions was developed. This was piloted to third year students (who currently receive the bulk of the statistics teaching). After they had completed the virtual patient they were asked to complete an evaluation form using Likert scales.

Results
100% of students either strongly agreed or agreed that the use of a clinical scenario demonstrated the clinical relevance of statistics and epidemiology. 100% of students also either strongly agreed or agreed that the virtual patient was an enjoyable way to learn about statistics and epidemiology and 80% either agreed or strongly agreed that it was a useful revision aid.

Discussion
Virtual patients can be developed to not only be learning tools for clinical problems but can also be used to help students learn about basic science subjects including statistics. Students enjoy the format of virtual patients and their use can help students to see the clinical relevance of these topics.

References
Do Foundation Doctors Perceive a Requirement for Teacher Training?

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Background and Purpose

There is increasing emphasis on teacher training in postgraduate medical curricula. This is reflected in the General Medical Council’s revised ‘Good Medical Practice’ guidelines and the new workplace-based assessment ‘Developing the Clinical Teacher’. There is as yet a lack of literature on the views of Foundation doctors on teacher training however. Here, we present the opinions of Foundation doctors attending a teacher training symposium.

Methodology

Foundation doctors in South-East Scotland were invited to attend a 6-hour formal teacher training symposium organised and delivered by a small group of Foundation doctors in collaboration with senior medical education staff. All attendees completed an anonymised questionnaire which explored their views on teaching being a core competency of doctors; the extent to which doctors should receive formal teacher training prior to teaching; their willingness to attend formal teacher training; and the role for teacher training and assessment at an undergraduate level.

Results

122 Foundation doctors attended the training day (78 FY1s and 44 FY2s), of which 91 (75%) completed the questionnaire. 66% of respondents had taught medical students while working as a junior doctor (and 72% taught whilst a medical student). 76% said they had no formal teacher training before the training symposium. 91% thought teaching was a core competency of Foundation doctors. 14% believed that doctors must be given formal teacher training before teaching medical students. 86% would like teacher training as a doctor, whilst 61% would have liked this as a medical student. 51% would value formal assessment of their teaching skills as a medical student.

Discussion and Conclusions

We show that most of our doctors consider teaching an important role for clinicians. Most had prior teaching experience, but this was not matched with associated teacher training. Despite most aspiring to gain formal teacher training, only a small proportion believed that doctors should have training before teaching. Our doctors therefore do not perceive a significant need for teacher training, but are keen to engage with the training process. We therefore propose that greater emphasis be placed on teacher development and this should be inclusive of Foundation training – this will help to ensure that subsequent teaching provided by junior doctors is in line with GMC guidance. Our findings also support consideration for this teacher training process to start during undergraduate medical education.

References

Understanding the Professional Development of Medical Students using a Bourdieuan Framework

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Background and Purpose

Previous work has clearly outlined theories of medical student socialisation which highlight the importance of developing common values, attitudes and behaviours.1,2 This process facilitates the students’ passage through medical school and its adversities and the development of ultimately a professional identity. However, while professional socialisation focuses on common pathways and shared student perspectives, how students engage with the medical culture to successfully become doctors is insufficiently explored. This paper therefore examines in greater depth the relationships between institutional structures and medical student practice, often referred to as the “hidden curriculum”, and its association with the professional development of medical students.3

Methodology

A Bourdieuan framework that specifically explored the inter-relationships between the conceptual tools of field, capital and habitus4 was used to further elucidate the processes involved in the professional development of medical students. A series of 3 focus groups and 15 subsequent follow up individual interviews with students spanning all five years of the curriculum explored the opinions of students concerning their initial and late socialisation into medical student culture, their engagement with the medical curriculum particularly the clinical environment, and how this affected their professional development. Initial results from the focus groups helped devise further questions to be asked of students during the in-depth one-to-one interviews. The discussions were audio-taped, transcribed and analysed thematically.

Results

Students outlined how they developed a “way of fitting in” and “playing the game” particularly relevant to a clinical setting that is compatible with a previously described understanding of the medical habitus.5 By developing a medical habitus students engage more fully with the established medical culture which they believe enhances their professional development. A student’s medical habitus forms from the dynamic relationships between the “medical field”, constituting students’ clinical learning and interaction with the medical hierarchy, and the capital of the student. The social and cultural capital of students refers to tacit knowledge students possess which they described as originating from their peer friendships and social networking.

Discussion and Conclusions

Using a Bourdieuan framework facilitates our understanding of how medical students engage more fully with the medical culture by developing a medical habitus. This process highlights the active role of students in their own professional development rather than a previously accepted over-emphasis on a passive socialisation. These findings confirm the importance of examining the relationships between institutional structures and student practices in understanding professional development.

References

Medical Ethics and Law Online interactive resources - a useful and convenient way of providing Medical Ethics and Law (MEL) education to UK medical students

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Introduction
Medical Ethics and Law (MEL) education helps make students aware of the situations they will face in clinical settings and suggests appropriate ways of approaching them. In the long term, it aids development of moral and ethical reasoning that will allow student doctors to understand other people’s views, helping them become more empathetic and caring clinicians. However, MEL teaching is a neglected subject where available educational resources are deficient.

Objectives
This project seeks to address this gap with innovative methods of teaching through establishment of an interactive website where MEL resources are shared and presented through rich, interactive media. The learning objectives are taken from the Consensus Statement for Medical Ethics and Law¹, agreed upon by all 32 UK medical schools, coordinated by the IME (Institute of Medical Ethics)

Methodology
A variety of online resources were implemented to achieve our objectives:
• Video scenarios derived from IME’s core curriculum are brought to life by use of animated case videos/videos filmed with volunteer student actors.
• Each scenario is accompanied by: (i) interactive flash-based MCQs, using factual knowledge from the IME’s core curriculum, providing self-assessment and awareness of students’ progress. (ii) ethics/legal notes providing theory based teaching
• An online storage system has been implemented allowing lecturers, students and other professionals to upload teaching resources. Users have options of selecting whether resources are available to the lecturers only, or to everyone.

Content is peer-reviewed and applicable to a wide range of students, from first to final year medical students. The Web 2.0 format has led to the development of an immediate, integrative learning environment for students.

Outcomes
The main outcome measures of the project will be identifying: students’ perceptions of the usefulness and convenience of the website as an educational resource; the usefulness of the website for examination preparation and impact of the website on improving ethical awareness. Student focus groups, individual interviews and online questionnaires can generate qualitative data at the end of each online ethics module focusing on student perception and satisfaction. The implementation of the IME’s core curriculum of learning allows the project to be applicable to students across the UK’s medical schools.

Results
This paper will present the preliminary findings of the study.

Conclusions
This project has provided a diverse range of resources with an innovative approach to the problem of developing engaging ethics teaching, in a topic area where educational resources are deficient.
References
Metacognitive beliefs, attentional control and worry associated with OSCE performance anxiety: First year medical and dental students

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Background and Purpose
Medical and dental training involve numerous assessment settings, e.g. exams, OSCEs, etc., making demands of students’ knowledge and behavioural learning abilities. Demands are also made on their abilities to regulate distressing emotions (e.g. anxiety), problem thinking (e.g. worry) and task focussing skills (e.g. attentional distraction). A metacognitive perspective has been used to both explore and address performance anxiety. The metacognitive theory describes a nonspecific cognitive-attentional syndrome (CAS) associated with emotional disorders and applicable to understanding performance anxiety. The CAS consists of perseverative thinking (worry and rumination), attentional focus on threat, a reduction in task focussed cognitive resources and cognitive and behavioural coping responses that maintain the metacognitive beliefs that drive the CAS. The present study aimed to examine whether metacognitive beliefs, worry and attentional control would make independent contributions to predicting performance anxiety thus providing further support for the metacognitive theory and CAS model.

Methodology
First year medical (n = 312) and dental (n = 69) students (total N = 381) were invited to participate in the study on the day of their formative OSCE. Participants completed the following: Meta-Cognitions Questionnaire – 30 (MCQ-30), Attentional Control Scale (ACS), Penn State Worry Questionnaire (PSWQ), Three Factor Anxiety Inventory (TFAI) and Depression and Anxiety Stress Scales (DASS).

Results
Some 286 students participated (75%) in the study yielding 273 (72%) completed questionnaires. Correlation analysis showed that all dimensions of MSQ-30, ACS and PSWQ were correlated with TFAI. A hierarchical regression showed that only the negative metacognitive belief dimension of the MCQ-30 and the PSWQ both significantly and independently predicted TFAI.

Discussion
The results show that the negative metacognitive beliefs dimension (beliefs about the uncontrollability and harmfulness of worry) of the MCQ-30 and the PSWQ both had a significant and independent contribution in predicting TFAI, i.e. performance anxiety. This finding is consistent with previous studies and the general metacognitive theory of emotional disorders. Metacognitive theory not only identifies key psychological processes underpinning performance anxiety but also suggests specific interventions. The theory predicts that cognitive strategies aimed at enhancing skills in suspending or postponing worry (challenging the metacognitive belief of uncontrollability) also experiential workshops that challenge the metacognitive belief about the harmfulness of worry would lead to a reduction in performance anxiety. Research is underway to evaluate these predictions.

References
The influence of the tutor on student performance

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Background and Purpose

Many medical schools have adopted small group approaches to learning. The literature on the quality of expert and non-expert tutors in health professional education, have generally compared generalists with specialists. The conclusions are varied; some studies reported no difference where others showed that students of specialists did better in some of their final examinations. Other studies have shown that irrespective of their expertise the better-rated tutors were those who had expertise in the tutorial process rather than content. This study looks at the importance of the background of the tutor and expertise in the tutorial process with performance.

Methodology

Tutorial process: Students were asked to rate the quality of their tutor’s small group facilitation skills, on 5 criteria, using a likert scale, as well as free-text comments on positive aspects and areas for improvement in the tutorial process. Free-text comments generated were independently coded by both researchers and a numerical grade assigned to the tutor regarding their ability to facilitate.

Tutor background: In addition each tutor was designated to one of 4 groups based on medical qualification, clinical practice or neither of these and also whether they were a teaching fellow (employed specifically for the programme) or a general member of staff (contributing as part of their university or hospital duties).

Others: The students’ past performances in written based examinations and peer and staff nominations during the year were also considered. Student performance in a short answer question paper and OSCE were compared with the above.

Results

The abilities of the tutor in the tutorial process and the background of the tutor appear to have a minimal effect on how well the students performed in the end of year examination. However some groups performed better than others. A strong positive relationship was found between previous academic performance and the number of nominations made by staff and students with current performance.

Discussion and Conclusions

There may be four major reasons why the profile of staff and/or their tutorial process abilities had no significant effect on performance:

- Differences between tutors are too minimal to have a consequence on learning
- Learning in the sessions may not be reflected in the assessment process.
- Students are capable of strategically learning irrespective of the learning opportunities afforded them.
- Students’ perceptions of good tutors may not be reflective of what may facilitate learning.

The implications of these findings will be discussed.

References

Medical Student Pre-Prescribing: Is It Safe?

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Background and Purpose

Tomorrow's Doctors mandates that UK medical graduates must be able to “prescribe drugs safely, effectively and economically.”¹ However, data from three UK medical schools shows that graduates are poorly prepared in prescribing,² and a recent study detected a prescribing error rate of 8.4% amongst foundation year one (FY1) doctors.³ One possible reason for the failure to adequately prepare students is that they are not legally able to prescribe. The aim of this study was to develop and evaluate the safety of a process which allows medical students to experience authentic in-patient prescribing.

Methodology

For the first time in the UK, a safe process by which medical students can write instructions on real patient drug charts prior to countersignature by a doctor ('pre-prescribing') has been developed. This was refined in discussion with medical, pharmacy and nursing staff in NHS Fife. The process involves a pre-prescribing protocol, fluorescent stickers affixed to the drug chart, ‘bookmark’ aide memoires for countersigning and ward-based information sheets. The safety evaluation involved five final year medical student volunteers, who pre-prescribed on one ward over a seven week period. The students logged the pre-prescriptions written, including changes made prior to countersignature, and doctors signed the logs. All staff members were requested to report adverse events to the project supervisors. An anonymous questionnaire was distributed to staff and students encountered on the ward during the final week of the study. The local ethics service advised that ethical review was not required.

Results

No adverse events were reported during the seven week period. Students completed 162 pre-prescriptions, 18 (11.1%) of which required amendment prior to countersignature. 28 of 32 questionnaires were returned. One error was disclosed that had not been reported during the seven week period. One staff nurse was concerned about the potential for error, and one doctor felt that FY1s should not countersign pre-prescriptions. All other comments were positive.

Discussion and Conclusions

This study demonstrates the successful small-scale implementation of a process for pre-prescribing. Initial data regarding the safety of the process is positive, although further evaluation is required to ensure that the risk of adverse events has been adequately limited. Further work will include expansion of the project throughout South East Scotland to generate sufficient evidence of safety. In addition, the educational impact of pre-prescribing on medical students will be explored in relation to the models of workplace-based learning proposed by Billet⁴ and Eraut.⁵

References

Empowering medical students to effect rapid curricular change

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Background and Purpose

Student involvement in curriculum development leads to high student satisfaction\(^1\) and has been suggested as a means to improve quality in financially challenging times.\(^2\) Supported by the former British Association of Medical Managers, a group of fourth year medical students undertook a review of management competencies in the University of Manchester undergraduate medical curriculum.\(^3\) The results were presented to programme directors at the medical school who were keen to empower the students to address the highlighted deficiencies.\(^4\) Tutors and the lead student collaborated to pilot a Student selected component (SSC) to implement their recommendations. The 3 week SSC included peer teaching of third year students and an audit in a local general practice in order to address the curricular deficiencies. Evaluation of the project included the impact on the students and tutors.

Methodology

The impact of the project in relation to the original management competencies was explored through semi-structured interviews with the fourth year students. Further evaluation data was obtained through completion of a questionnaire by the third year students who had taken part in the educational intervention.

Results

Early data analysis suggests that the fourth year students gained new knowledge, skills and experience from the project. These included teaching, audit and leadership skills. Third year students had immediate benefit from the fourth year students’ work. An emerging theme suggests increased confidence in systems analysis and the implementation of improvements. Third year student feedback on the new teaching was very positive.

Discussion and Conclusions

This project suggests that students can effect curriculum improvements within one year with support of programme directors and the collaboration of clinical teaching fellows. Successful small-scale and bottom-up interventions can positively inform and influence the wider medical school curriculum reform agenda. Facilitating the development of students’ skills to influence change at this level greatly develops the leadership and management capability of these future professionals.\(^5\)

References

Peer Assisted Learning is Effective in a Clinical Setting

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Background and Purpose
Peer Assisted Learning (PAL) has been used as a method of teaching for many years\(^1\) and it is being increasingly used in many medical educational establishments to support the teaching of undergraduate students. The use of PAL to teach scientific information is well documented and previous research has suggested that PAL may be a useful tool in teaching simulated clinical skills\(^2\). There appears to be a lack of evidence which assesses the use of PAL in a clinical setting. This study aimed to determine whether PAL can be effective in a clinical environment and whether it can lead to improvements in tutee performance in a clinical setting.

Method
The study targeted 200 third year medical students who were relatively new to the clinical environment. These students were divided into small groups of 2-4 students, and were allocated a fourth or fifth year volunteer tutor. These tutors were instructed to deliver teaching sessions on a variety of suggested topics in a clinical setting on the wards. Tutees were asked to complete an online questionnaire at the end of the programme. This evaluated the peer-led teaching sessions and was split into 5 domains: tutor preparation and organisation; session content; peer teaching aspect; tutee outcomes and overall programme analysis. A four-point Likert scale was used to classify responses. Free text was obtained and analysed for recurring themes. University Research Ethics Committee approval was obtained.

Results
60 tutee responses were obtained. Of the responders, 94% of tutees identified gaps in their knowledge and the same proportion reported an improvement in confidence and ability in performing clinical skills since the beginning of the programme. 94% of tutees reported that PAL was equally as useful as formal teaching and 98% felt the teaching was pitched at the right level. 96% of tutees reported their tutor provided useful feedback. 94% of the tutees said that they would recommend the PAL programme to a friend. Free text comments made by students confirmed that they perceived the sessions to be well structured and of high quality.

Discussion and Conclusions
To our knowledge, this is the first study to report that PAL is a beneficial and effective method of teaching medical students in a clinical setting. This study identified PAL in a clinical setting as being a useful method of improving the confidence and perceived ability of medical students to perform clinical skills.

References
Reflections on Patient Safety: A Qualitative Analysis of Foundation Trainee Portfolios

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Introduction
As frontline clinicians, junior doctors are considered vital to promoting Patient Safety. However, incident reporting amongst this cohort is poor. Other methods are therefore required to identify patient safety incidents (PSIs) to which junior doctors are aware of and likely to use to disclose such incidents.

Portfolios are being used increasingly throughout continuing medical education to encourage reflection and support professional development. To date, no study has explored whether portfolios can be used to assess PSIs. This study set out to determine whether Foundation Year 1 (FY1) doctors reflect upon PSIs within their professional development portfolios and the potential value of such reflections for quality of care.

Methods
A retrospective review of all ‘Reflective practice’ portfolio entries made by every FY1 doctor at an Acute University Hospital Trust was carried out. Entries were reviewed by two independent blinded researchers to determine whether they related to a PSI i.e. any unintended or unexpected incident that could have or did lead to patient harm. For all entries rated positive by both reviewers, a standardised qualitative emergent theme analysis was used to code PSI into incident type, contributing factors and patient outcome according to validated frameworks developed by the UK National Patient Safety Agency.

Results
139 reflective entries were completed by 30 trainees (15 male, 15 female, mean age 24). Of the 139 entries, 68 (49%) reflected on a PSI. Of these, 22% were due to errors in clinical assessment; 22% were due to delayed access to care; 18% were due to infrastructure/staffing deficiencies and 16% were due to medication errors. The commonest contributing factors were team and social factors (23%), patient factors (22%), communication and task factors (both 17%). The majority of PSIs led to no harm. Six entries described PSIs resulting in patient death, the majority of which were attributable to diagnostic errors. The formal reporting of PSIs to Incident Reporting Systems was mentioned in only 3 of the 68 cases.

Conclusion
This study shows that Foundation trainees commonly reflect on PSIs within their portfolios and that reflective entries may be a useful tool to determine junior doctors’ awareness and understanding of patient safety incidents. Such critical reflection can encourage learning but may also promote patient safety and the quality of healthcare at an organisational level.

References
Students’ Perceptions of Clinical Reasoning: A Qualitative Study

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Background and purpose
Clinical reasoning is both broad and complex. It can be defined simply as the “decision-making process associated with clinical practice”\(^1\). Understanding its complex nature is difficult yet vital to optimising students’ learning. Explanations of the development of clinical reasoning have focused on cognitive theories, such as the hypothetico-deductive model\(^2\) and pattern recognition\(^3\). Recently, integrated models, addressing reflective inquiry in the clinical context\(^1\) and clinical reasoning depicted as a journey of professional socialisation\(^4\) have been presented. However, robust longitudinal studies focusing on the development of clinical reasoning in the transition period between medical student and foundation doctor are lacking in the published literature.

Methods
Audio-taped focus groups are currently being carried out with participants in their final year of medical school. These aim to tap into students’ understanding of the term “clinical reasoning” and to explore the development of this so far during their undergraduate careers. Specifically, positive and negative influences on the development of students’ reasoning will be identified and analysed thematically\(^5\). Issues related to the teaching and learning of clinical reasoning will also be questioned along with consideration of the role mentors and other health professionals within the “community of practice”\(^4,6\). Other factors, pertinent to the workplace, such as critical reflections on adverse incidents will be identified and discussed while individual narratives are analysed\(^7\).

Results
The data collection for this study is on-going, and this is the initial phase of a longitudinal PhD study into the development of clinical reasoning across the transition period. By the time of the conference, preliminary thematic\(^5\) and narrative analysis\(^7\) will be completed. Although themes have yet to be identified in the data, it is anticipated that many will reflect the nature of the questions posed. Clarifying the definition of “clinical reasoning” through students’ perceptions, in addition to, describing positive and negative factors will provide foundations for the author’s longitudinal PhD study. These factors, combined with socio-cultural influences within the workplace are likely to be pertinent in the themes identified along with their impact on subsequent learning.

Discussion
This presentation will discuss students’ perceptions of clinical reasoning and the educational and research implication of factors influencing its development. Not only will this study deepen the understanding of such issues, but it will contribute further knowledge to the existing literature, providing a basis upon which focused educational strategies can be developed to optimise students’ clinical reasoning abilities.

References
Medical students, digital tools and studying practices on clinical placements: time, access and resourcefulness

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Background and purpose
This study investigated third year students’ uses of digital tools and resources to support their studies in formal and informal learning contexts at the University of Bristol, Medical School. Students spend most of their time on placement from year 3 onwards in geographically-dispersed NHS-based academies. The study explored what is already being used and how technology could be further incorporated in the future to facilitate learning according to the changing environments and practices.

Methodology
A qualitative methodology involved students as co-researchers (and co-authors) to explore their lived experiences, recognising that contextualised designs are needed to research the use of technology in education and what Regehr has described as the ‘messiness’ of human learning. Six students maintained a video diary for 7 months (February to July 2010) and recorded entries approximately weekly. Students described and demonstrated how they used digital tools and resources to support their work. Regular progress meetings offered support and explored early findings. Students also assisted in data analysis and coding. Results were validated through further group discussion with reference to the full transcripts.

Results
Technology was influential in supporting the peripatetic lifestyle of medical students. Email was crucial to both time management and communication. Links between students and university were predominantly via e-mail whereas peer communication was in person. Feedback evoked strong opinions. Online tutorials were rated highly for their feedback on performance whilst personalised feedback was frequently lacking. Internet and other resources were located, brought together and used to create artefacts and organize their own educational materials. These were frequently printed and annotated. Access to the internet and digital tools were critical for students continually moving between different settings, locations, environments and cultures.

Discussion and conclusions
All these students used digital tools to be creative in gaining access and saving time and in particular to assemble resources to construct their own artefacts. Bonderup Dohn calls this ‘patchworking’ and highlights possible tensions between educational and digital practices because this patchworking activity may not always be recognised as valuable by educators who focus on the ‘cut and paste’ as an impoverished activity. Whereas, our study shows that these are part of wider set of students’ practices for improving their own learning and remodelling resources to meet their own studying needs. Medical educators need to understand these wider strategies and recognise how they contribute to resourcefulness and ownership of learning and studying.

References
I've found a video – can I use it? Developing principles and good practice for the creation and use of health-care recordings in open educational settings

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Background and Purpose
Authentic patient encounters are vital to teaching and learning in healthcare professions. Patients, families and healthcare workers are often willing to collaborate by sharing stories in photographs, podcasts, videos, etc; acted by a role player or in clinical recordings for teaching purposes. All individuals are entitled to be treated with respect. In clinical fields the rights of patients and people, such as privacy (consent to take) and confidentiality (consent to disclose) must be taken into account. These concepts are in addition to, and often conflated with, copyright leading to confusion regarding the status of use/reuse of clinical resources. Consent is bound by principles and ethics, and practice may improve with awareness and education. In addition, tools are required to help manage and communicate the importance of consent. The Reusing Medical Recordings Project is a nationally funded project to take forward the recommendations of the "Common Healthcare Educational Recordings Reusability Infrastructure" (known as CHERRI) workshop in November 2009. The aim is to increase the confidence with which clinical recordings are used for educational purposes, by addressing organisational, cultural and technical factors.

Method and Results
Supported by the JISC’s Strategic Content Alliance, a taskforce of cross-sector stakeholder organisations has been established to take forward the recommendations from the CHERRI workshop to enable more effective and trusted use of clinical recordings for educational purposes. To date, the taskforce has generated consensus around and produced a set of principles and high-level guidance covering issues such as consent (privacy and confidentiality), copyright and intellectual property rights, storage, re-use and onward transmission of medical recordings. These are in the process of being made available to the wider community for consultation and feedback, the results of which will be reported at the conference. Working with the PORSCHE and ACTOR projects, results will be disseminated to clinical educators in academic and healthcare settings.

Discussion and Conclusions
The next steps are to establish the proposed ‘Consent Commons’ licensing framework which clarifies permissions for digital recordings of people for educational purposes. It balances a desire for sustainable open access with protecting patients’ and other peoples’ rights and expectations of how recordings of them may be used. To succeed, the proposal requires common principles and guidelines that incorporates and supports local policies and procedures enabling institutions to enact robust policies and codes of practice and helping individuals be clear how resources can or cannot be reused.

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Framework for Feedback – Peer MiniCEX as a formative assessment tool

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Background and purpose
The Mini-clinical exam (miniCEX), a workplace based assessment evaluates student performance during a focused clinical encounter in undergraduate(1) and postgraduate settings(2). Immediate feedback on performance and the teaching opportunity provided, have been identified as strengths of the process by students (1). We wondered if the MiniCEX format could form a useful framework for peer teaching and assessment whilst on clinical placement. We decided to assess the utility and acceptability to students of the MiniCEX as a peer assessment tool.

Methodology
Forty students, assigned in pairs, undertook two peer MiniCEX evaluations on clinical attachment. All students acted as both learner and assessor. Peers completed a form together following the assessment. The assessor assigned a mark and identified areas for improvement in their peer’s performance. Students were surveyed using open ended questions. Responses were coded and grouped into themes independently by the authors.

Results
Thirty three responses were received (82%). All but one student identified positive aspects of the experience, these were benchmarking their own performance against their peer, receiving useful feedback, gaining experience for other exams, the real life nature of the exam and gaining a different perspective through examining. Negative aspects were focused on the validity of the assessment due to bias or lack of qualification of peers and logistical issues of organising the assessment and the desire for more guidance regarding standards. Fifteen students felt that peer assessment was appropriate. A further 4 students felt that it should be a student from an older year, double marked by a tutor or guided by a checklist. The remaining fourteen felt that peers were not qualified to assess them and vice versa. No student scored less than 4/5. All domains tested were rated as meeting or exceeding expectations. Assessors were able to identify things that had been done well and areas which could be improved.

Discussion and conclusions
MiniCEX provided a useful framework for formative peer assessment in the undergraduate clinical setting. Students are capable of identifying areas of strengths and weakness in their peers qualitatively but not quantitatively (3, 4). However, they lack confidence in their ability to do this, questioning their qualifications for this role. We intend addressing this through increased training in their teaching role and providing feedback.

References
The FOOT Scheme: Early Lessons Learned From The National Roll-Out Of A Near-Peer Undergraduate Teaching Scheme

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Background and Purpose
The Finals Orientated OSCE Teaching (FOOT) Scheme is a “near-peer” approach to undergraduate medical education, through which clinical skills teaching is provided to final year medical students by foundation year doctors. The scheme originated in Nottingham City Hospital in 2009, and in 2010 was rolled out across five other hospitals in the deanery after positive feedback and significantly improved exam performance amongst FOOT participants.1, 2, 3

The scheme has since been started at ten additional sites across the UK. The objective of the current project was to re-appraise the scheme in the context of initial roll-out experience, including benefits and challenges of the scheme as perceived by FOOT coordinators;2 concerns at sites which chose not to deploy the scheme; and3 suggested adaptations in the light of the above.

Methodology
We conducted structured telephone interviews with co-ordinators of the scheme at the different hospitals. Feedback was also gathered at sites which chose not to deploy.

Results
The scheme was primarily rolled out to final year students, but, at some sites, also to first year clinical students. Students embraced the opportunity to learn from those who had recently transitioned from student to doctor, and to have periods of focused teaching. Doctors welcomed the opportunity to refresh skills/knowledge that might not be used on their particular rotation. Some doctors also felt that the team-oriented nature of FOOT increased motivation to honour teaching commitments. There was a correlation between uptake by students and simplicity of structure, eg., prolonged allocation of students to a particular doctor. All sites utilised the FOOT materials, with some doctors implementing changes to meet local needs. Most sites gathered feedback, but often only at individual teacher-student level. At sites which declined to deploy the scheme, concerns included encouragement of “exam behaviour”, discouragement of innovation and administrative difficulties.

Discussion and Conclusions
Junior doctors in the UK are increasingly involved in developing teaching schemes and this survey highlighted some interesting benefits of such schemes which may not have previously been apparent. The survey indicated a trend for tailoring to meet local needs, underlining the importance when rolling out to new sites of cross-sharing of ideas, for example, through web-based forums or meetings. The importance of student feedback at a general level was also underlined. Concerns raised by sites which chose not to deploy suggested a need for clear explanation of both mission statement and intended modus operandi.

References
Bed crisis at Virtual Hospital: The use of virtual patients in medical education

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Background
Virtual patients (VPs) are a new online resource for medical students at Barts and The London School of Medicine. A pilot of dermatology VPs received good feedback from students, 97% requesting more in other specialties. This academic year we are creating VPs in cardiology and gastroenterology with an upgraded user-friendly software package (ivimeds.org).

Medical education is increasingly focused on application and demonstration of higher cognitive skills and knowledge in clinical practice. The use of computers and online resources has also become part of the mainstream in medical education [1]. Reviewing existing resources has therefore inspired us to develop virtual patients promoting clinical reasoning skills and professionalism amongst medical undergraduates, in line with GMC ‘Tomorrow’s Doctors’.

Methods
As junior doctors, we are creating realistic, interactive scenarios, based on our clinical experiences. The medical student “walks a mile” in the shoes of an FY1 doctor, experiencing the journey from admission to discharge. They must assess, investigate, diagnose and manage core clinical conditions addressed in the curriculum.

We have integrated a variety of methods into our VPs to maximise the learning potential including: questions with instant feedback, radiology and ECG images, audio and media files. We have also introduced core skills by setting activities such as prescribing, certifying death and interpreting blood results. Our aim is to introduce students to responsibility for patient care in a safe online environment.

Results
Formal student pilots are beginning February 2011: initial responses look promising. This will evaluate the content, relevance and student satisfaction associated with virtual patients. A survey of student attitudes towards online learning, including the simultaneous use of additional resources or teamwork, will also inform future integration of the virtual patients into the curriculum.

Discussion & Conclusions
Blended learning is vital to improving use and learning outcomes of our virtual patients. We have considered “what the learner actually wants and does – only some of which will coincide with those activities pre-selected for them” 2

Virtual Patients are not proposed to replace interaction with clerking real patients, but are useful when patient availability is reduced 3. They are a valuable bank of patients, enabling students to recognise and manage the range of clinical conditions that is expected from the curriculum. Technology is intrinsic to students’ lives and they expect modern learning to reflect this 4.

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4. Joint Information Systems Committee & Ipsos MORI. Student Expectations Study: Key findings from online research and discussion evenings. 2007
Instant response software for teaching medical students – it’s the single best answer!

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Background and Purpose
Medical schools are increasingly using single best answers (SBAs) to assess students in the written component of their finals examinations. SBAs are therefore being used more and more during lectures as a method of teaching. Instant response software allows large groups of students to anonymously answer SBA questions during a lecture, via their own multi-choice keypad. A graphical spread of the student’s answers is then displayed on the projector screen. This offers both the students and the lecturer immediate feedback on the group’s responses to each SBA.

Research questions
Do students feel that using instant response software during SBA teaching lectures allows for greater interaction with the lecture? Does the software encourage the students to answer an increase proportion of questions? Does instant response software help to better highlight students’ strengths and weaknesses, and do they feel it better prepares them for their Finals written examination?

Methodology
Final year medical students from University College London Medical School (n=150) attended a 3 hour teaching lecture, 4 months prior to their written Finals examination. Students were periodically presented with SBA questions and asked to relay their answers anonymously via their individual multi-choice keypad. Following display of the group’s responses, the correct answer was then discussed with the lecturer. The students were subsequently asked to anonymously complete a questionnaire evaluating the research questions detailed above, using Likert scales and free text responses.

Results
Feedback from students was positive. They felt that this teaching technique enhanced their learning experience and aided their understanding of the subject matter. The majority of students agree that compared to conventional teaching lectures, using instant response software makes SBA teaching lectures more interactive, increases the proportion of questions that they answer and promotes discussion. They also agreed that this lecture style better illustrated their strengths and weaknesses whilst effectively preparing them for their written Finals examinations. Full results will be presented at the Conference.

Discussion and Conclusions
Students feel better prepared for written examinations when instant response software is used in SBA teaching lectures, as they feel more involved in the lectures, more open to discussion and are able to recognise their strengths and weaknesses more effectively. Opportunities to use instant response systems in SBA based lectures should be actively pursued.
Developing a medical education community of practice with reflective blogs

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Background and purpose
This work came out of the Teaching and Learning in the Health Professions MSc run at the University of Bristol. This modular course traditionally has a long reflective written assignment at the end of the certificate, based on Schön’s idea of developing a reflective practitioner. In designing a one year version of the course, we developed a different form of assessment for the reflective assignment. This paper reports on the use of blogs as a reflective tool and their impact on both teaching and the development of a community of practice among trainees. The blogs themselves seem to have encouraged innovative teaching practice (in contrast to US research) and the development of a community of practice among trainees. The blogs themselves seem to have encouraged innovative teaching practice (in contrast to US research) and the development of a community of practice among trainees. This paper looks at this aspect of blogs and asks whether this format of reflective writing encourages students to innovate in their teaching and whether blogs can contribute to a medical education community of practice.

Methodology
This was a piece of action research, in collaboration with the pilot group of students, which aimed to improve teaching practice in this pilot course. As part of that process new questions arose (see above). The data collected includes blogs, tutor reflection and student questionnaires. Analysis of the qualitative data is through thematic analysis and discourse analysis of the blogs.

Results
Early results indicate that students continue to explore classroom innovation throughout the teaching course. There is also evidence that the blogs allow students to create a community of practice, feeding of each others’ experiences and reflection.

Discussion and conclusions
Clinicians are part of many communities of practice, but they may be isolated from other medical educators. Can the use of online groups offer the support that they might need in their future educational careers? In addition, this work raises the question of whether an informal blog does more to encourage innovation and reflection than more standard forms of assessment used in teacher education. Preliminary results suggest it does and further work will seek to clarify this.

References
A more complete picture? Multi-source feedback in peer teaching

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Background
Peer-led teaching is well established as an effective method, and is an important curricular consideration\(^1,2\). It provides an opportunity to gain skills in assessment and feedback, which are key to improve learning. Quality feedback to students has been proven to be an effective learning tool, with some types of feedback being more effective than others, and the focus of the feedback influencing its effectiveness\(^3\). We sought to evaluate the use of multi-source feedback after a peer-led teaching exercise from the peer tutors perspective.

Methodology
A small-group, peer-led teaching session on clinical audit was delivered to year 3 medical students. Feedback from peer tutors, academic tutors and year 3 students was gathered using multiple methods then discussed with the peer tutors. Opportunity for revision of the teaching session was provided, then the cycle repeated. Semi-structured interviews exploring the merits and weaknesses of each feedback method were carried out with the peer tutors.

Results
Early data analysis suggests that each method of feedback to the peer tutors had specific benefits. The combination of multiple sources of feedback provided a more complete assessment of performance. The opportunity to make improvements, before being assessed again, is a clear emerging theme. Difficulties in balancing conflicting comments were problematic for peer tutors.

Year 3 comments on the overall session suggested ways to improve the peer tutors group dynamics, highlighting less effective teaching methods and suggesting appropriate alternatives. The audience feedback, which focussed on specific tutors, was seen as essential in highlighting individual strengths and weaknesses.

Academic tutor comments shared many points with the year 3 students, but provided more depth and the opportunity to discuss solutions with skilled teachers. Finally, the feedback provided by a fellow peer tutor gave the perspective of a fellow educator with shared background preparation.

Discussion and conclusion
Peer tutors found the multiple sources both helpful and challenging. Overlapping themes repeated from multiple sources, added emphasis to key messages. Peer tutors felt information from different perspectives ensured a holistic evaluation of their performance.

References
Student learning in non-English language consultations?

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Background and Purpose
Community Based Medical Education (CBME) clinical staff have seen increasing numbers of patients without English fluency, increasing UK medical student numbers\(^1\) and the increase in community placements. This has resulted in more students observing non-English language community-based consultations. Anecdotally, negative comments have been raised by students regarding this potentially rich learning environment. Data was gathered to explore the students' opinions of non-English language consultations.

Methodology
Comments regarding community learning experiences were gathered from year 3 and 4 students using mixed methods. Data was themed using a grounded theory approach.

Results
Students' perceptions of non-English language consultations were frequently negative. They suggested that little learning was possible in this environment and the overall experience was viewed poorly. Students enjoyed talking to patients but this was much harder if they had no shared language.

Discussion and Conclusions
Implications of students' perceptions of medical interactions with patients who do not speak English are important in a globally mobile population. Concepts such as cultural competency, professionalism\(^2\), and patient centredness\(^3\) may be lost without addressing this issue. Students may miss the opportunity to learn how serve the full range of their patient population in their future careers. Future work is required by university and community tutors to maximise the potential learning from this rich environment to effectively translate into a useful experience for students.

References
Comparison of learning opportunities in Paediatrics and Child Health of a metropolitan to a rural clinical school

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Background and Purpose
The scope of learning opportunities in Paediatrics and Child Health for medical students in their clinical years underpins their preparation for competent clinical paediatric practice, and some prevocational trainee doctors in Australia feel unprepared for rotations in paediatrics¹. Increasing student numbers and reduced access to patients in tertiary centres world-wide has led to medical schools using rural locations as alternative learning environments ². Does the learning during block specialist rotations in tertiary hospitals differ from that in extended placements in rural primary care settings and is that evidenced in the measured outcome in Paediatrics and Child Health?

Methodology
Consent was obtained from students in the fifth year of their undergraduate course at the University of Western Australia for their submitted work to be reviewed for the study. The clinical logs of two parallel cohorts of students – one studying in a tertiary hospital paediatric block rotation (School of Paediatrics and Child Health) and the other in an extended rural placement (Rural Clinical School of Western Australia) ³ were included for review. Twenty eight clinical logs were reviewed – fourteen from each school. Descriptors including patient age (neonate, infant, child or adolescent), the system or specialty of the presentation (eg, immunology or neonates) and case complexity (primary, secondary or tertiary level) were determined by an expert clinician. Benchmarked learning outcomes from the written paper and OSCE exam performance as well as the global rating were compared.

Results
Although there were other relevant methodological factor differences between the cohorts, eg mode of logging - handwritten log books versus web-based logging; role of logging in the assessment matrix⁴, this pilot study indicated that the variety and complexity of cases logged were similar between the two groups. There was no difference in the measured learning outcomes, ie grades in the end of year exams.

Discussion and Conclusions
This pilot study showed that both environments provided diversity of cases and complexity for learning opportunities in Paediatrics and Child Health, despite considerable differences in the learning environments of the two students cohorts.

References
Evaluation of Medic Insight: a novel county-wide programme delivering medical work experience to school students

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Introduction
Medic Insight (MI) is an organisation conceived in 2007 which runs a unique free programme that allows school students to gain an appreciation of a prospective career in medicine. We believe that the provision of work experience needs to be improved for both students and doctors. Securing work experience in medicine has historically been biased: individuals that have family or friends who work as doctors. Shadowing experiences are of questionable value, and frequently offer exposure to only one field, and administrators struggle to match doctors’ working schedules with those of students.

Aim of Study
To establish the social and demographic profile of Medic Insight students and ascertain the value of the programme.

Methods
This is a qualitative study involving the collection of feedback questionnaires from the students in the Medic Insight programme during the 2010 academic year. The programme involved the MedicInsight Week which offered 147 school students aged 15-17 years old, a week long hospital attachment and the MedicInsight Day which offered 99 students aged 14-15 years old, a day of interactive lectures and practical skills

Results
73% (73) of MI day and 94%(147) of MI week students completed the feedback questionnaires. 100% of students in both groups felt they would recommend the programme to peers. 99% and 79% of MI day and week students respectively felt that the programme helped them decide whether or not to study medicine. In addition, 84% of MI week students felt they were more aware of the duties and responsibilities of a doctor. Our cohorts for both programmes were composed of a mix of independent and state school students, from both medical and non-medical backgrounds.

Conclusion
This study demonstrates that MI is worthwhile, providing school students a realistic and informative insight into medicine.
Debriefing in surgical teams: How can we maximise learning?

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Introduction
Recent changes in working hours and the shifting patterns of service provision are impacting on the delivery of high-quality clinical training. The effect is seen to be greatest in specialties with high emergency and out-of-hours workloads, including surgery and anaesthetics. It is widely recognised that the majority of clinical training should occur in the service environment and there is a need to enhance workplace-based learning in the face of dwindling opportunities.

Studies show that debriefing is a key tool in consolidating and enhancing the learning experience of individuals and teams in both the clinical and simulation setting. However there is currently limited robust evidence on optimal feedback on performance (content and delivery), leading to unsystematic, idiosyncratic approaches to performance debriefing practices.

This study addressed this gap by determining systematically end-users’ requirements for effective debriefing from the perspective of trainees and trainers within surgical teams.

Methods
A qualitative, multinational, interview-based approach was used to achieve in-depth understanding of the key issues surrounding surgical debriefing, its ideal components and barriers and solutions to improve its effectiveness. Semi-structured interviews were carried out with surgeons, anaesthetists and theatre nurses by researchers in the UK (MA), USA (JP) and Australia (DN). All interviews were audio-taped and transcribed verbatim and analysed using a grounded theory approach. Emergent themes were identified by the primary researcher (MA) and reviewed by a second researcher (SA). Ethical approval was obtained for the study across all institutions.

Results
Thirty-three interviews were conducted. Key features of an effective debrief included: taking an honest, non-threatening approach; establishing the learning environment; engaging the learner(s); encouraging descriptive reflection; exploring learner(s)’ reactions; analysing reasons and consequences of actions (‘analysis’); identifying areas for improvement (‘diagnosis’) and setting an agreed action plan for improvement (‘application’). Barriers to effective debriefing included time constraints; other clinical commitments and a lack of suitable environment to conduct the debrief. Proposed solutions to improving performance debriefings included providing a standardised proforma/structured approach; ring-fencing time to conduct debriefing and taking steps to embed debriefing within the surgical culture.

Conclusions
There is an increasing drive to improve debriefing within surgical teams to enhance workplace-based learning. The current study reveals the key requirements for effective performance debriefings that maximise clinical learning. Further research is needed to prospectively evaluate the efficacy of the user-proposed interventions to enhance debriefing in the clinical setting, and also in simulation-based training modules.

References
Exploring conceptualisations of Empathy in Medical Education and the dangers of choosing just one

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Background and purpose
In this presentation we report on the first phase of an interdisciplinary project between researchers and students. The EMERGe (Empathy in Medical Education Research Group) project was established in 2010 to critically investigate conceptualisations of empathy within Medical Education and to research the implications of such frameworks upon the pedagogic practice on Medical Educators. Our previous research critically explored the decline of empathic skills in medical student reported elsewhere 1, 2 and asserted the importance of doctors as teachers as role models crucial in maintaining the empathic skills of students.

Methodology
The first stage of the project was designed to explore empathy in research literature across a range of disciplines. Team members working in Medicine, Psychology in Education and Counselling in Education completed a comprehensive systematic review of research articles using Medline, PyschInfo, Web of Science and ERIC databases. Themes derived from this review were used to form the basis of semi-structured interviews with teaching doctors to ascertain qualitative perspectives from practitioners. Thematic analysis on interview transcripts was then used to critically compare and contrast themes reported in research literature and those collated from interviews.

Results
Our presentation highlights the importance of understanding practitioner’s attitudes, not only in terms of explicit skills to be taught to students, but also the ways in which empathy inhabits implicit pedagogic practices. Multiple definitions of empathy across the research literature highlighted the range of theoretical frameworks employed across disciplinary boundaries often resulting conceptual confusion. We argue that oversimplified explanations of what empathy is and how to teach it are ‘missing the point’. This was evident in the differences between conclusions of articles that utilised specific models of empathy in their research design, as opposed to the complex, layered and multifarious definitions of empathy in practice reported by our sample.

Discussion and Conclusion
We argue that conceptualisations of empathy ‘borrowed’ from psychological or therapeutic discourse might not be very helpful for medical educators or their students. The role of researchers in Medical Education is thus seen as crucial in collaborating with educators to develop suitable ways of conceptualising empathy in a medical education context and to ask further questions about the ways that the decline empathy can be reversed through specific pedagogic practice and assessment procedures. The next planned phase in our project is to design teaching and learning materials in the light of substantive themes that have arisen in this phase.

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Barriers to Attending Theatre-Based Learning: Undergraduates’ Perspectives and Suggestions for Improvements

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Background and Purpose
The operating theatre can be a daunting environment to medical students which impacts negatively on their educational climate and thus on their satisfaction, achievement and success. Although some studies suggest students find theatre-based teaching a valuable learning experience a recent study has suggested that only 7% of medical students felt they were welcome in theatre at any time. With undergraduate experience greatly influencing career choice and increasing evidence to suggesting decreased interest in surgery, we wondered what barriers students face in attending theatres and whether changes could be implemented to improve their experience of theatres as a learning environment.

Method
Qualitative data was obtained from a focus group consisting of six 3rd year undergraduates recently completed their first surgical attachment. We sought to answer 3 questions: a) what their perception of theatres was b) whether its a useful learning environment and c) how can learning in theatres be improved.

Results
The focus group yielded several insights into undergraduates’ perceptions including that most scrub nurses are hostile towards medical students, younger surgeons are more laid-back and approachable than older ones and that students are often an inconvenience in theatres. With regard to the operating room as a learning environment, views were mixed. The majority felt attendance was valuable only if able to assist or if the surgeon explained the steps of the operation, both of which were infrequent. One participant felt more could be gained from reading in the time it takes to watch an operation. Suggestions for improvements included distribution of operation lists at the beginning of the week to allow timetable planning, publishing ‘teaching slots’ on the lists of surgeons keen to teach and a formal induction to theatres where they are introduced to staff.

Discussion and Conclusions
This study reaffirms pre-existing notions that undergraduates perceive theatres to be a hostile and unwelcoming environment and supports findings in other studies that this may be due to the perception of theatre staff as unfriendly and surgeons as intimidating. Greater initiatives are needed to create a hospitable atmosphere and a formal induction to theatres may prove useful. Formally stating some lists as ‘teaching lists’ (as for outpatient clinics) may also direct students towards those surgeons willing to teach. The useful and practical suggestions gained from this study also lend support to the use of undergraduates in designing their own educational material and proposing innovations.

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Transitioning into workplace learning across healthcare disciplines: Early findings from a comparative study of medicine, nursing and audiology at two UK universities

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Introduction
Clinical placements are often a particularly challenging component of a student’s education. Here we report on a comparative study designed to inform how transitions for students from university-based teaching to workplace-based learning can be optimised. Research teams from the Universities of Southampton and Leeds investigate the transitions that students make in academic programmes for medicine, nursing, and audiology at both institutions. The primary questions guiding this research were:

What are students experiences of being on placement? What do students expect to get out of placements? Do students’ expectations and experiences correspond to the understandings and expectations that clinical and teaching staff hold in relation to student placements?

Methodology
This presentation reports on the first phase of a mixed-methods study. A range of qualitative methods were used to access perceptions of student placements from a range of stakeholders. A novel component of this study was the inclusion of a comparative element across several healthcare professions. Despite emphasis on inter-professional learning in the UK’s National Health Service, there has been little comparative research undertaken on the student experience of clinical placements.

Results
Overall results support the complex nature of workplace learning that has been reported elsewhere. This presentation will focus on two examples of how the disciplines studied differed in their approach to workplace learning, and how this impacted upon the experiences of their students: the nature of the teacher-student relationship and its impact on role-modelling; the point of commencing placements within a particular degree programme and its impact on student preparedness.

Discussion & Conclusions
The initial findings from this first phase of the study illustrate some of the ways in which different healthcare disciplines can learn from one another about how to best manage the transition of students from classroom learning to workplace training. In particular, and in line with existing research, medical educators need to be aware of the specific consequences that can entail from larger teacher-student ratios and from commencing major clinical placements midway through a degree programme. Comparative studies like the current project offer a novel insight into the range of consequences that curricula structures can engender, and offer an opportunity to consider refinements that can inform good practice in the training of healthcare students. Across the coming years, the research team will develop and continue this study to make further empirical contributions to the principles and practices of workplace learning.

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Foundation Doctor Led Practical Prescribing Tutorials – A Structured, Standardised and Feasible Approach to High Quality Teaching on Prescription Writing, to Final Year Medical Students, by Foundation Doctors

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Background and Purpose
The GMC specifically mentions prescribing in Tomorrows Doctors and commissioned a study into prescribing errors. The authors made recommendations on five areas that were to be targeted for intervention, one of which being undergraduate medical education programmes. Prescribing for final year students is often inconsistent and can result in transference of bad habits.

Methodology
We designed small group teaching around prescription writing for Final Year Medical Students in their medical student assistantship, to be delivered by Foundation Year (FY) 2 Doctors.

Part 1
1) A Delphi consensus with physicians and pharmacists involved in Acute Medicine on the most common drugs involved in prescribing errors, the most common prescription writing errors and rating of these in order of importance.
2) A questionnaire was distributed to FY1 Doctors asking them to self rate their prescribing skills on starting their FY1 year, difficulties they encountered, details about errors they made and errors they noticed others had made.

Part 2
A series of 4 tutorials were designed using a blueprint created from Part 1. FY2 doctors were recruited and trained to use and deliver the standardised materials. A small pilot was performed before offering the tutorials to all Final Year Students and was evaluated using an on-line questionnaire.

Results
Part 1
1) The Delphi consensus involved 4 physicians and 4 pharmacists and over 2 rounds created a list of 19 drugs involved with common prescribing errors and 20 common prescription writing errors.
2) The survey was completed by 22/50 (44%) of FY1s. Self rating prescribing skills upon starting FY1 3.55/7 average, 87% of FY1s had made at least one prescribing error and 100% of FY1s had noted a prescribing error by a colleague.

Part 2
The 4 tutorials were offered to all 165 Final year Students. 31 FY2 doctors were recruited and trained. 108/165 (65%) of students attended at least one tutorial. 65/108 (60.2%) of students completed the evaluation. Of these 65 students, 38.5% attended all 4 tutorials. 59/65(90.1%) agreed the format of standardised tutorials being facilitated by FY2s was a good was to learn. 56/65(86.1%) agreed that the tutorials brought additional teaching on prescribing not gained in the student assistantship.

Discussion and Conclusions
The programme we designed was created on a background of robust material gathered from multiple local sources. There was a very good uptake from FY2 doctors to deliver the material and excellent feedback from the students following the tutorials. These structured
and standardised tutorials on prescribing, were delivered on a large scale by FY2s and was very feasible. The feedback from students was excellent.

References
What factors influence student learning outcomes in Genitourinary Medicine (GUM) clinics?

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Background
Key learning outcomes for students attending GUM clinics include being able to take sexual histories, and perform genital examinations on both male and female patients. We evaluated factors that influenced the likelihood of students at a large central London medical school practising these skills in GUM clinics.

Method
Penultimate year students are timetabled to attend 3 GUM clinics, of mixed or single gender that occur across 3 sites, supervised by doctors and specialist nurses. Students’ log books, documenting patients clerked and examined, are completed by the supervising clinician after each clinic. We analysed 200 student log books to identify the numbers of sexual histories and genital examinations performed, student gender, clinician gender and clinician grade.

Results
Data were available for 256 male student clinic sessions and 283 female student clinic sessions (student gender was unclear for a further 11 clinic sessions). Female students were more likely to have documentation from all 3 clinics (90% v 76% p=0.04).

Sexual Histories
The mean number of sexual histories taken per clinic was 3.8. Students attending 1 clinic took a mean total of 4.5 histories compared with 8.7 for those attending 2 clinics and 11.4 for those attending 3. Grade of supervising clinician had some effect on the likelihood of students taking a history (p=0.06). Combination of student and clinician gender had no effect (p=0.23). Male and female students took a similar mean number of histories per clinic (female clinic: 3.4v3.4, male clinic: 3.9v4.1, mixed clinic: 4.5v4.3)

Genital Examination
Female students performed slightly more male examinations than male students per clinic in single gender clinics (1.57v1.42) but slightly fewer in mixed gender clinics (1.72v1.8). Differences were more marked in female clinics where female students performed more speculum examinations (0.98v0.57) and more bimanual examinations (0.56v0.33). In mixed gender clinics female students performed more speculum examinations (0.70v0.58) and a similar number of bimanual examinations (0.49v0.50). Male students supervised by a female clinician were less likely to perform a bimanual examination (p=0.002) or a speculum examination (p=0.02) than male students supervised by male clinicians or female students supervised by clinicians of either gender.

Conclusion
The student and clinician gender together affects the likelihood performing female genital examinations. Taking these issues into consideration when allocating students to clinics may maximise potential opportunities.
Arts-based inquiry in medical education

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Background and purpose
Arts-based inquiry has been used as an optional part of medical student assessment as part of their year one GP placement for the last five years. Increasingly students have been opting to produce a creative-reflective piece in response to a patient home visit (80% of students 2009-10). Students use a spectrum of media such as first person narrative, poetry, painting, photography, sculpture, music and dance to convey the patient’s story or their experience of the patient encounter. This work is formatively assessed by GP teachers. My doctoral research has been an in depth exploration of the learning that is possible through arts-based inquiry, drawing on student and GP teacher feedback and student creative-reflective texts.

Methodology
This was a heuristic inquiry which can be described as participatory research and involves engagement of the self of the researcher as they seek to engage with a question central to their practice. Moustakas has described six phases of heuristic inquiry: engagement, immersion, incubation, illumination, explication and creative synthesis. These informed the process of my research.¹

Results
Production of a creative-reflective text on this clinical attachment encourages greater student engagement with ‘patient voice’ and ‘student voice’ i.e. the personal dimensions of being ill or consulting with patients. Quality of engagement with voice is affected by narrative humility and reflexivity respectively. Four learning spaces were identified that may not be accessed through more traditional educational routes. These were, Positional space, writing or producing a creative text from the imagined perspective of a patient or carer, Expressive space – the opportunity to engage with metaphor and symbolic thinking through the different languages of the arts, Emotional space – grappling with patient or student emotions, Improvisational space – the opportunity to be curious and reflect broadly about a student-patient encounter. Learning through creative-reflective exploration was shown to enhance intra- and interpersonal understanding (developing self-awareness and/or greater understanding of others).

Discussion
Both patient and student voice are suppressed within the traditional model of learning to take clinical case histories,² yet students are encouraged to care for their patients.³ Caring is a personal act which might be enhanced through nurturing the student voice alongside their factual acquisition and technological training. The creative-reflective option described here offers one way for students to embrace the patient’s lived experiences and learn from them as well as engaging with their own felt responses to these encounters.

References
Undergraduate Education
Development of a theory-based questionnaire to measure intention to fail underperformance in medical students

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Objectives
Accurate assessment of student performance on clinical placement is a concern: underperforming students are likely to ultimately fail or become incompetent doctors. However, underperformance in medical students is often not reported accurately or formally. The aim of this study was to assess if the Theory of Planned Behaviour (TPB) can be used to develop a new and reliable measure of medical educators’ attitudes towards reporting underperformance in medical students on clinical placement.

Methods
The FUSS (Failing Underperforming StudentS) questionnaire development included item generation, item selection, piloting and item reduction. The internal consistency of the subscales was determined using alpha coefficients. Factor analysis was conducted to determine the factors underpinning the scale. The test-retest reliability of the individual scale items were determined using Wilcoxon signed ranks tests.

Results
Medical educators teaching clinical placements (n=118) completed the initial 74-item FUSS questionnaire, and 78 completed it on a second occasion. Eleven constructs were identified, of which eight had reasonable internal reliability, and two of the remaining three were belief-based and, as such, do not necessitate high internal consistency. Factor analysis produced 24 components with an eigenvalue above 1, accounting for 78.3% of the variation in the data. The groupings produced by the factor analysis either produced the same constructs as those originally described, or a new grouping that had a better Cronbach’s alpha score than the original construct. Factor analysis indicated that the number of questions could potentially be reduced from 74 to 40.

Discussion
Despite some theoretical limitations, this new measure appears to be a consistent and stable measure of educators’ beliefs about reporting underperformance in medical students. Further research is required to confirm these findings on a large scale. This study takes medical education research a step nearer to addressing the calls for greater use of theory and conceptual frameworks.
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Assessment
Participant evaluation of a Paediatric Postgraduate Clinical Examination

A Chinoy, A Mathew

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Background
The MRCPCH Clinical is the final part of the Paediatric Membership exams with the Royal College of Paediatrics and Child Health (RCPCH) in the UK. This exam assesses whether candidates have reached the standard in clinical skills expected of someone entering their period of core specialist training. Hospitals are invited by the RCPCH to host these examinations, and do so with the help of suitable patients, clinical staff and volunteers.

Methods
A questionnaire survey was conducted inviting all parents and children who participated in the exam, qualitatively evaluating their views on various aspects of the examination day and their involvement. Participation was voluntary and completed questionnaires were anonymous.

Results
35% of families completed their questionnaire (42/120). Assisting in education and training was the most popular reason for participating in the exam, although 21% of participants thought that it ‘may help in getting better care’. The amount of time actually spent in the examination room by most children was thought to be ‘just right’ (88%). Hospitality issues such as the waiting areas, refreshments provided and care and consideration from staff and volunteers were rated very highly. All 42 responders reported that they would be happy to participate in these exams again.

Conclusions
The limited response rate may not accurately reflect participants’ perspectives, with those less satisfied not responding, thereby skewing results. However it is encouraging that all responders expressed willingness to participate in future exams. Improvement in managing families’ expectations prior to the examination does seem necessary, but needs to be delicately balanced against deterring patients from participating. It is interesting that 21% of participants thought that involvement in these examinations ‘may help in getting better care’. This is particularly disappointing, as such exams rely on the goodwill of parents and their children, and one’s co-operation or refusal to participate does not have any implications on their future clinical care. Perhaps this needs further clarification when families are first approached to participate.

Diligent preparation and efficient implementation, coupled with appropriate attention towards hospitality and information-sharing all contribute to successful clinical examinations, and is reflected when participants are willing to participate again. It is however important to ensure that parents do not feel under any obligation to participate, and the expectations of their experience on the day is appropriately managed.
Staff and volunteer evaluation of a Paediatric Postgraduate Clinical Examination

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Background
The MRCPCH Clinical is the final part of the Paediatric Membership exams with the Royal College of Paediatrics and Child Health (RCPCH) in the UK. This exam assesses whether candidates have reached the standard in clinical skills expected of someone entering their period of core specialist training. Hospitals are invited by the RCPCH to host these examinations, and do so with the help of suitable patients, clinical staff and volunteers.

Methods
A questionnaire survey was conducted inviting all staff and volunteers who helped in the exam, qualitatively evaluating their views on various aspects of the examination day and their involvement. Participation in the survey was voluntary and completed questionnaires were anonymous.

Results
86% of staff and volunteers completed the questionnaire (18/21). Assisting in training and education was the most popular reason for contributing in the exam (being given as a reason by 67% of responders). The opportunity to be involved in a potentially interesting day and that they were scheduled to help were other popular responses. 67% of staff and volunteers reported they had been ‘fully’ prepared for the day, with 33% feeling they were only ‘somewhat’ prepared. 83% felt that their personal contribution to the running of the exams was ‘very useful’. All 18 responders agreed that the clinical exams had been ‘very’ well-organised.

Conclusions
It was pleasing to note that the staff felt their contribution to the day was ‘very useful’, an important facet to such a task where each member of the team needs to be felt valued and respected. That all 18 responders agreed that the exams were ‘very’ well-organised highlights a successful team effort and careful planning and implementation so that the day ran smoothly. As responses were anonymous, it is difficult to categorise whether those who had central roles in the running of the exam were better prepared than those involved more peripherally and as such it is important to note that a third of helpers only felt ‘somewhat’ prepared prior to the examination. This needs addressing for future examinations by more detailed briefing to further ensure smooth-running of the examination.

Co-participation, by displaying appropriate intent, support and commitment from all participants, was pivotal to the success of this examination, demonstrating many of the ideals of communities of practice.
Does UKCAT predict performance in the first year of an integrated systems based medical school curriculum?

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Background and Purpose
The UKCAT was introduced in 2006 as a selection tool for medical schools. UKCAT aims to predict future success as a doctor¹, testing ability in the domains of Quantitative Reasoning, Verbal Reasoning, Abstract Reasoning and Decision Analysis. Previous assessment of predictive ability of the UKCAT has found it to be low²,³ but only in the context of pre-clinical curricula.

Our aim was to determine if the lack of early predictive power of the UKCAT is constant across curricula by analysing performance on a traditional pre-clinical curriculum and an integrated, systems-based clinical course in the same medical school.

Methodology
Anonymised data was collected from students matriculated in 2007 and 2009. The 2007 cohort represented the traditional pre-clinical curriculum assessed by written exam only, whilst the 2009 cohort undertook a new, systems-based, clinically integrated curriculum assessed by both written and clinical OSCE exams.

Spearman’s rank correlations were generated for each of the exam outcome measures. Linear regression analysis was performed using UKCAT total as predictor. Adjustment was made for the potential confounders of age, gender and previous graduate status.

Results
Correlations between UKCAT scores and written exams in the traditional curriculum were very weak (between 0.2 and -0.2). This was found to be the same for the clinically integrated curriculum OSCE scores as well as written exams.

Linear regression analysis demonstrated that, at best, UKCAT score explained around 5% of the variance in the traditional curriculum exam scores and 6% in the clinically integrated curriculum, even when the regression analysis model was expanded to include UKCAT domains and demographic data.

Discussions and Conclusions
UKCAT domain and total scores did not predict performance in Year 1 on either a pre-clinical or a clinically integrated curriculum suggesting that it remains a poor predictor of success across both curricula. Given that UKCAT is intended to predict future clinical success it is interesting that it was a poor predictor of success in the clinical OSCE exam. This study is limited by the fact that all subjects attended first year at the same medical school, albeit in different year groups. It would be interesting to compare UKCAT and performance across a number of medical schools with very different curricula. Further research should aim to examine prediction of performance in later years of study.

References
Correlation among medical students’ basic Communication and Physical Examination skills Portfolios and OSCE and written knowledge-reasoning exams

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Background and Purpose
Interest in the use of portfolios within graduate medical education has grown in Spain recently. This has been mainly because portfolios seem to have potential to encourage reflective practice and self-directed learning, they can be good tools for assisting formative assessment. Nevertheless medical educators highlighted the difficulties associated with the lack of standarization of their content and so their limit to be used as summative assessment. We developed a reflective portfolio as part of the student’s third year training in basic communication and physical examination skills. The aims of this study were to determine the reliability of assessment criteria (1) and to assess their correlation with other summative tests.

Methodology
Portfolio was carried out by 160 students. We modified the Rees&Sheard (1) proposal for the assessment of portfolios. Those were evaluated by two raters (80/rater). Agreement between both raters was obtained in 30 portfolios by means of an intraclass correlation coefficient (ICC) for the total percentage & item scores and by Simple Concordance Index or Kappa Coefficient when possible, for the individual items. Spearman correlation coefficient was used to assess the correlation among the scores obtained in the portfolios and final medical written and OSCE exam. All these variables were categorized by quartils and compared each other (Chi Squared)

Results
We recovered 149 portfolios, the average score was 5.08 (12 maximum score), but 70% of students scored less than 4.5 (9 maximum) in the reflective report. The total ICC was 0.941 (95% CI:0.880-0.972). Items A:83.3%; 0.832; B1:0.51 (K);0.857; B2: 0.55 (K);0.675 and B3:66.6%;0.713. Correlation between portfolios and written exam was positive and significant: Spearman coefficient: 0.474 (p: 0.001). Quartils comparison was also significant (22.5; p: 0.007). There were no correlation between portfolios and OSCE: 0.023 (p: 0.780). Quartils comparison (9.72; p:0.37)

Discussion and Conclusions
The agreement for the total scores for the assessment criteria was satisfactory, so these criteria could be used to discriminate reliably between low and high quality portfolios. Most of the students seem to have difficulties articulating a deep reflection upon their experience, but those that show these abilities also got the higher scores in written exams about knowledge and reasoning. Conversely there is no correlation among ability for reflection and practical skills scores. In this way the reflective reports of portfolio could be used as an additional tool for summative evaluation of these domains but less for those related to practical skills.

References
Modelling the use of confidence intervals with the borderline regression method for final year undergraduate OSCE at the university of Southampton

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Background and Purpose
We wished to model and pilot a novel use of the confidence interval (CI) and standard error of the measurement (SEM) with the borderline regression method, in line with recommendations by PMETB/GMC,1,2 and in place of simple examiner global judgements.

Methodology
Students must satisfy two criteria to pass the BM finals OSCE: aggregate score and minimum number of stations passed. The SEM has been equated with CI1 and applied to aggregate score3-5. We wished to introduce it into our examination, and also proposed a novel strategy to calculate the CI in the cut score for a single station. Using the standard error of the intercept and gradient we calculated the CI for these values, and used them in the regression equation to interpolate a new value of y when x is constant. We modelled these techniques to maximise the sensitivity and specificity of both criteria.

Results
In a cohort of 242 students, 6 failed >3 stations on global judgement. For 2 of them the mean grade was also below the threshold but none failed this criterion alone. Introducing borderline regression without adjustment, 23 students failed >3 stations but none on aggregate score. Recalculating the aggregate pass mark as mean cut score plus 1.96xSEM (upper 95%CI) considerably improved the sensitivity of the aggregate score criterion, which 6 students now failed.

For individual stations, using the gradient and intercept minus 1.96xSEM (lower 95%CI) provided an adjusted cut score for each and considerably improved the specificity of this criterion. Students failed if their actual scores were below the cut score for >3 stations. 7 failed on this criterion. Considering both criteria 8 failed the OSCE, 5 of whom failed both criteria. Observed agreement with global assessments rose from 92.1% to 98.35% (Kappa 0.32 to 0.71).

Discussion and Conclusions
The adjusted cut scores showed improved sensitivity and specificity for both criteria and improved agreement with global judgements. It was perceived to be fair to students, affording them the benefit of the doubt when considering individual stations, but protecting patient safety when decisions could be reliably based on 16 assessments. Since most students who failed did so on both criteria, the method was perceived to be more robust. The authors plan to remodel this on another cohort of students before considering incorporating into the exam regulations.

References

Collaborating with medical students to develop an objective structured clinical examination (OSCE) for assessing knowledge, psychomotor and affective competence in emergency medicine

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Introduction
“Tomorrow’s Doctors (2009)”\textsuperscript{1} outlines the General Medical Council’s expectation that graduates from UK medical schools should demonstrate competence in diagnostic and therapeutic procedures. 32 competencies are outlined and the challenge for institutions is to ensure methods for assessing these are robust and fit for purpose. The Objective Structured Clinical Examination (OSCE) is an assessment approach in which clinical competence is evaluated in a comprehensive, consistent, and structured manner\textsuperscript{2}, using an examination format in which students rotate around a circuit of clinical task stations.

Methods
A 10-station OSCE was piloted to assess the feasibility and utility of this form of assessment at evaluating the competence of students following an 8-week placement in the emergency department. A focus group with clinical skills staff and 10 volunteer students was conducted to inform the decision about whether a formal introduction of the OSCE into the curriculum should be recommended. Thematic analysis was used to code focus group data.

Results
Students most valued the OSCE as an opportunity to participate in assessment as part of their preparations for finals. They disliked the set up in the suturing station, citing it was “too confusing” and “encouraging bad clinical practice”. The clinical skills staff most valued the OSCE because it allowed them to contribute further to the placement, beyond their routine teaching roles. Clinical skills staff had previously used item checklists, however, and disliked the responsibility of using global rating scales. They felt uncomfortable making judgements about candidates, which could potentially affect their progression on the course.

Conclusions
Valuable feedback could not have been obtained for evaluating the OSCE and facilitate a proposed introduction, without organising a pilot in collaboration with medical students. Inviting students to contribute their perceptions, and tailoring the assessment towards their needs as well as those of stakeholders, may increase it’s acceptance over the long-term. More data is required to improve reliability and validity of the OSCE before making an evidence-based judgement of it’s utility for assessing competence in emergency medicine.

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\textsuperscript{1} General Medical Council. Tomorrow’s Doctors 2009 (www.gmc-uk.org/Tomorrow_s_Doctors_2010.pdf_30373144.pdf).
Does Medium Fidelity Simulation Training in a District General Hospital improve confidence to be a part of the Medical Emergency Team (M.E.T): An Analysis of the experience of Trainees

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Background and Purpose
Medium-fidelity simulation training is shown to improve a medical trainee’s ability to manage medical emergencies1. It is a highly effective educational tool but is also expensive and provides a sizable workload for medical educators. We have been running a simulation programme at this trust for the last 2 years with a SimMan® to improve confidence of foundation year doctors to perform as part of the medical emergency team and assess emergencies at the front door.

Methodology
During the 2010-2011 academic year we conducted several multi-disciplinary simulated training sessions covering the management of medical emergencies using SimMan3G®. Scenarios were based in real life M.E.T. calls attended in the hospital. 100 medical professionals were provided with questionnaires to complete following the sessions to assess their experience of simulated training. A 14 point questionnaire was utilised. Undergraduates were invited as a part of Simulation training using a video link and completed a questionnaire. An advanced nurse practitioner is involved in the sessions to initially assess the patient and then calls the candidate to assess the patient.

Results
We had 81 responses. The majority of trainees had experienced less than 3 simulated training sessions. 79(98%) agreed that simulated training was beneficial to learning. 63(77%) agreed the scenarios accurately reflected acutely unwell patients. 75(94%) agreed the scenarios enhanced their ability to manage acutely unwell patients. 75(94%) agreed introducing simulated training as part of undergraduate training would be beneficial. 60(75%) would like simulated training used as part of the formal assessment of foundation trainees.

Discussion and Conclusions
Our simulated training programme is well received by a range of medical professionals both post/undergraduate. It offers a more realistic experience of medical emergencies in a protected non-threatening environment. It mimics the pressures of real world medicine while providing an environment where questions can be asked. Criticisms involved the inaccuracy of the scenario timescales (in relation to procedures and patient response) and that it is harder to assess the patient as they do not respond in a realistic manner. Candidates desired scenarios on reduced conscious level, arrhythmias and gastrointestinal bleeds suggesting these are areas of trainee concern. We also utilised these sessions as a Case based discussion (CBD) to link in with trainee e-portfolios.

We achieved good feedback from deanery foundation quality assurance visits and have shown better interaction between members of the M.E.T. We plan to roll out this programme to core medical trainees and also integrate this into inter-professional training (medical, nursing and physiotherapy students).

References
Millar’s Pyramid can be used as an effective guide in assessing authentic performance of Consultation skills in the Ambulatory care setting

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Introduction
Millar’s Pyramid is a very useful model in explaining the levels of assessment of learning. Its phased structure allows effective assessment of students to achieve competence and performance authenticity. However it does present a challenge.

Challenge to assess performance
‘Performance’ is the ability to demonstrate skill in a real life situation. ‘Competence’ usually indicates what people can do in a contextual vacuum in near perfect conditions. Most undergraduate curricula for teaching and assessment of ‘competence’ for consultation skills use simulated environments reflecting the ideal context. To translate competence to performance with unequivocal results is hence a challenge. What Millar’s pyramid can perhaps be utilized for is developing a staged and more authentic simulated programme.

Current model of teaching and assessment
‘Knows’: In 1st year, students interact with patients and concentrate on the usage of ‘open and closed’ questions. They build their knowledge around basic clinical problems. They are assessed formatively using their ‘reflective’ account of patient interaction as part of their portfolio.  
‘Knows how’: In the second phase of 1st year and 2nd year, the students consolidate their knowledge going through various system-based blocks. They interact with patients using the ‘hot seat approach’. A formative assessment is carried out during the process by individual tutor feedback and peer review. It is subject to inter and intra observer variation, however through formatted teaching has achieved unequivocal results improving ‘face validity’.

Proposal for assessment of Ambulatory care teaching as the next step towards ‘authentic performance’
‘Shows how’: ‘Clinic Simulated environment’ at the end of 2nd year may allow assessing ‘Competence’. Assessment using remote video-link by trained assessors will reduce bias for ‘face validity’. Realism involved allows reliable ‘Predictive validity’ towards performance. This opportunity can be used to dictate research in performance indicators for work-based assessments as part of continuous professional development.  
‘Does’: This final frontier to test ‘authentic performance’ may be assessed in students progressing to 3rd year. The designed work based assessments can be used to assess consultation skills in the real clinic environment. This would hence acknowledge the ‘Construct validity’ of the process to achieve high performers.

Conclusion
Millar’s pyramid acts as an effective guide to achieve authentic performance in Ambulatory care setting. Its usage at the moment is inadequate to assess and convert ‘competent’ individuals to ‘performers’. The above-proposed model may facilitate this transition with complete utilization of the pyramid. This will also help overall development by improving interprofessional learning. Achieving high performers as end products can implement positive changes in the health sector improving patient management.

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The effects of examiner training on self confidence in long case assessment

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Background and Purpose
Of all clinical assessment formats used in undergraduate medical education, the validity of the long case is recognised as high. Arguments that inter-case reliability is questionable compared to OSCEs are debatable: both methods can be shown to exhibit similar reliability. To try and further improve the reliability of the assessment, a series of examiner training sessions were carried out and the effects of training on self confidence and perception of ability to make appropriate decisions assessed using a feedback tool.

Methodology
In each of our clinical academies training sessions were offered to long case assessors. Three assessment tools were demonstrated:
1. Clerking proforma, with a series of aide memoirs and key questions for assessors to consider
2. Long Case Descriptors allowed assessors to grade faults on the basis of major and minor criteria, the former being omissions or misinterpretations that compromise patient safety or hinder a correct diagnosis and management
3. Behavioural Indicators, brief descriptors of positive or negative behavioural traits in a candidate, addressing such areas as empathy and sensitivity, communication skills and professional integrity.

A series of video clips of senior students collecting the ‘History of presenting complaint’ under real test circumstances were then shown, for assessors to consider as a group. Feedback was collected after the 3 hour session.

Results
Feedback identified several outcomes of assessor training:
1. The confident assessor, who as a result of training became more cautious and more questioning of the validity and reliability of the Long Case assessment;
2. The initially unsure assessor, who became more confident in their judgements after training;
3. The initially unsure assessor, whose confidence remained low or further diminished as a result of the training;
4. The confident assessor, whose confidence in their judgement was confirmed by the training.

Discussion and Conclusions
In a recent GMC visit, overwhelming emphasis was placed on exam reliability over high validity. Part of the problem may be negative perceptions of the Long Case, encouraged by opinion leaders. We believe that qualifying in medicine without being assessed clerking real patients is anomalous. There is evidence that reliability can match that of the currently preferred OSCE format, given appropriate modification and rater training. Further work will quantitatively address this, but it also seems crucial to review assessor attitudes and confidence: a statistically reliable assessment must also be perceived to be so.

References
Promising findings for additional mediators of human melanocyte senescence

C Asher, D Bennett

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The best established familial melanoma locus CDKN2A, encodes two mediators of cell senescence, p16 and ARF. p16 at least is involved in the proliferative arrest of naevi (moles) – benign growths of skin melanocytes. p16 and the cell senescence barrier are lost in advanced melanoma. However this senescence is still not fully understood; it appears not to be mediated solely by p16, because although all naevi express p16, not all cells within a given naevus seem to express it. Accordingly it seems likely that there are other growth inhibitors involved. Growth inhibitors other than p16 may be additional mediators of human melanocyte senescence.

My aim was to determine whether the expression of likely growth inhibitors (ARF, p27, p21, p15) rose as normal human melanocytes became senescent. These growth inhibitors were selected based on demonstration of growth arrest typical of senescence in murine studies and human fibroblasts. Subsequently, I would see whether similar tests on p16 deficient human melanocytes (which also senesce although after many extra divisions) would reveal even higher expression of the potential mediators.

Normal and p16-deficient cells were grown, passaged and counted each time, until senescent. This was confirmed by using a stain for acidic β-galactosidase. The expression of potential growth inhibitors was investigated using immunostaining which was used to check the location of any inhibitor that was expressed.

Results & Conclusions

These findings were the first association of ARF and p15 increase with cell senescence in normal human melanocytes. ARF was further elevated in senescent p16-deficient melanocytes, suggesting a secondary/backup role in senescence in the absence of p16. The results for p27 and p21 were relatively consistent with current evidence that suggests neither may be involved in human melanocyte senescence. This study suggests novel candidates for additional mediators of human melanocyte senescence. Further research will help with the understanding of melanoma and perhaps diagnostic testing.

References

Collaborative development and sharing of undergraduate digital teaching and learning resources across Scottish dental schools – a model for medical education?

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Background and Purpose
A recent scoping study revealed that Scotland’s 3 dental schools and the Postgraduate Dental Institute were making little use of online teaching resources and that there was a strong willingness to collaborate in their development and share the outputs. Anecdotal evidence suggests that this trend may also be apparent in related healthcare areas such as pharmacy and allied healthcare professions. The Collaborative Learning Environment Online (CLEO) project funded by NHS Education for Scotland (NES) aims to stimulate collaborative development, ensure best practice and enable sharing of new online healthcare resources.

Methodology
Specific discipline and pedagogic expertise is available in Aberdeen, Dundee, Glasgow and Edinburgh dental schools. Following negotiation and agreement, all Scottish Dental Schools have agreed to work together to prioritise areas of the dental curriculum where the creation of on-line resources would have most benefit across Scotland. Each school, aided by an academic dental teacher and learning technologist is leading in the development of specific resources in line with their particular expertise to collaboratively ensure that the dental curriculum is supported and the student learning experience is enhanced.

Results
CLEO is now well developed with strategic, operational and financial management structures in place. The collaboration has produced an impressive range of online resources, ranging from granular assets, to more complex aggregations and discrete learning activities. A peer review process is underway to ensure that resources are quality assured, constructed to agreed technical standards and delivered in formats consistent with flexibility of use, technical interoperability, and accessibility. All resources are being metadata tagged and stored in an online repository accessible by the whole dental community; it is hoped this should ensure longevity. To date CLEO has delivered learning resources to underpin oral biology covering microbiology, physiology, histopathology, tooth development, and clinical procedures many of which would be of interest to medical teachers. Various resource types have been developed: interactive tutorials with built-in learning and self-assessment activities; interactive cases/virtual patients; high-quality 3D animations; simulations of practical and clinical procedures; videos and histology/pathology resources based on the use of a virtual microscope.

Discussion and Conclusions
The CLEO model is an example of how multi-institutional collaborative development and sharing of high-quality, peer-reviewed digital teaching and learning resources can be achieved in support of dental education. Evaluations of educational effectiveness and impact are under way. The usefulness of this approach as a model for supporting medical education should be considered.
Clinical Skills
Do Student Assistantships Help Achieve Practical Skills Outcomes from Tomorrow's Doctors?

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Background
Tomorrow's Doctors 2009 lists diagnostic and therapeutic procedures that students should achieve by graduation. It recommends final year students having at least one Student Assistantship (SA) where ‘assisting a junior doctor’ they undertake ‘most of the duties of an F1’ and where ‘students must use practical and clinical skills’. HYMS final year students have three eight-week SAs in General Medicine, Surgery and General Practice where, under supervision, they manage patients and are expected to consolidate these procedures and skills through this real patient management experience. We explored HYMS students’ experience of these skills during their SAs to see whether these outcomes are achieved during these placements.

Methodology
Questionnaires are being distributed to final year students asking about their practical procedure experience gained during their SAs. The list of 36 practical procedures is based on the Tomorrow’s Doctors 2009 list. A baseline questionnaire at the start of the year is being followed by repeat questionnaires after each of the three SAs. In addition to estimating the frequency of how many times each procedure is performed, students are also being asked to self-rate their competency.

Results
The baseline skills data has been grouped into four categories based on the median number of times each procedure had been performed; from the least where the median =0 to the most where the median was >10 with skills examples given.

1. Median = 0
   20/36 skills, predominantly therapeutic skills e.g. nebuliser administration, nasogastric tube insertion, catheterisation.

2. Median >0 and ≤ 5
   10/36 skills, a mixture of diagnostic and therapeutic skills, e.g. fingerprick glucose measurement, i.v. cannulation, instructing inhaler technique.

3. Median >5 and ≤10
   3/36 diagnostic skills: body temperature measurement, pulse oximetry, multistix urinalysis

4. Median >10
   3/36 diagnostic skills: automated device and manual blood pressure measurement, venepuncture.

Self-rating as ‘competent to perform procedure without supervision’ improved from group 1 to 4, with mean percentages for each group being 12.5%, 50%, 91% and 97% respectively.

Conclusions
The results show students have limited experience of a large number of procedures on commencing the final year; these are mainly therapeutic procedure skills. As expected
their self-rating of competence is lower in these. The SAs, where students are directly involved in patient care management, should therefore provide the ideal opportunity to achieve these. Subsequent questionnaire analysis will inform whether these skills are gained, and importantly in which SAs they are gained.
Continuing Education
Using a learner-designed curriculum map to help structure a learner’s personal development plans and self-directed learning – A pilot study

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Background and Purpose
UK Foundation doctor and dentist training are based upon their respective prescribed frameworks1, 2. These newly qualified graduates are encouraged to devise their non-curricular personal development plans (PDP) and record their PDP into their learning portfolio. At the Asia Pacific Medical Education Conference 2011, we demonstrated the concept of using a learner-designed curriculum map, based on Knowles’ five step model of self-directed learning3, can be used to help learners to structure, monitor and evaluate their self-directed learning (SDL)4. This pilot study looked at the application of this concept into portfolio learning where curriculum mapping is used as a tool to help structure SDL around the learner’s PDP.

The concept

Step 1: The learner states a personal development goal.

Step 2: A set of learning objectives is created.

Step 3: A learner-designed curriculum map is constructed based on the objectives.

Step 4: The curriculum map is used to map out the curriculum items (the desired learning outcomes) that would be met through carrying out the learning activity. This facilitates reflection and planning of learning.

Step 5: The curriculum map profiles of individual learning activities are combined to produce a summary map. This illustrates the learning that has occurred over a period of time and facilitates monitoring and evaluation of learning.

Methodology
Two Foundation trainees applied the concept of using a personalised curriculum map to structure their SDL around their PDP.

Results
The Foundation trainees designed their own curriculum maps and found them helpful in structuring and evaluating their SDL around their PDP. One Foundation trainee went further and added a reflective learning log of the learning activities and a peer/tutor feedback form.

Discussion and Conclusions
Learners who want to add structure to their PDP and SDL will benefit from using this approach. However, this approach may be viewed as being overly focussed on what the learner desires to achieve in their PDP and may hinder reflective thinking and evaluation of the learning that fell outside the curriculum. We suggest that adding a reflective learning log of the learning activity will help document the quality of learning and encourage reflection. The time required to build a curriculum map depends on how detailed the curriculum items were. The curriculum map should be updated whenever the PDP of the learner change. We recommend that learners should be given guidance prior to developing their personalised curriculum maps.

References
Comparison of medical student feedback when taught by pedagogical versus andragogical methods

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Background
Traditional medical teaching favours a high lecture component. This pedagogical approach is teacher dominated, and the students remain relatively passive. In contrast, andragogical teaching emphasises active and participative learning by the student.

Aims
The author wanted to compare student feedback when the same topics were taught in lecture form compared with a student-centred approach, involving regular learner activities.

Methods
2 lessons were prepared on pleural diseases, lasting one hour, covering the same topics, and involving the same teacher. 60 third year Bristol medical students were allocated either lesson, with 30 per group. The pedagogical lesson was in lecture format with PowerPoint slides, and no student interaction. The andragogical lesson included teacher talk mixed in with various student activities including; completing request forms for pleural fluid, marking diagrams where to site drains, case studies with audience voting, and creating posters about exudates and transudates. Evaluation questionnaires were collected from students. These used rater scores (ranging from 0=strongly dissatisfied through to 5=strongly satisfied) and qualitative responses about the sessions’ quality, usefulness, and least useful aspects.

Results
Average rating out of 5 for session quality was 4.8 for the active teaching and 3.0 for the lecture. Despite both sessions having the same topics and length, students complained of feeling rushed and unable to consolidate learning during the lecture. The active learners were extremely satisfied across all evaluation aspects, with average score of 4.8, and they had no negative comments. The teacher noted that active teaching students had increased energy levels and enthusiasm for the subject. Those in the lecture group failed to stay interested and concentrate over an hour.

Conclusions
The average person can concentrate on subject matter for about 5-15 minutes (Fontana, 1995). It is difficult for any student to remain focussed during a 60 minute lecture. During the interactive session, the students were fully participative, making their own decisions, and were more enthused and attentive than the lecture group. It will be interesting to compare the difference in learning between groups receiving either lesson in the future.

References
Curriculum Planning
Positive 3-year outcomes of a clinical introductory attachment for second-year medical students

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Aims
For over a decade, UK universities have introduced undergraduate medical students to clinical medicine during their first two years of study. The GMC has set out professional values and behaviour expected of students when working with multidisciplinary team (MDT) colleagues. It is necessary they respect the skills and contributions of other professionals, and develop effective communication with the MDT and patients [1]. Hospital attachments can be organised to create a supportive learning-environment and aid future transition [2]. We aimed to evaluate the 3-year outcomes of a clinical introductory attachment for second-year students, during a period of curriculum change.

Methods
A total of 149 second-year medical students completed a 3-week attachment at our trust hospitals between 2008 and 2010. They attended MDT meetings, ward rounds, sessions with healthcare professionals and visited hospital departments. They also participated in small-group tutorials and skills-laboratory sessions. Students were asked to complete an end-of-attachment feedback questionnaire.

Results
57% of the group were male. Nearly all students (98.3%) thought the attachment was helpful or relevant to their training. 86% rated their learning experience as “enjoyable”; 94.2% understood the importance of an MDT approach in patient care; 91.3% understood the roles of healthcare professionals. Throughout the 3-year period, despite curriculum change, annual trends were similar. Before starting their attachment, 15.2% felt apprehensive; this reduced to 1.0% post-attachment. However, over half (51.8%) did not feel part of a team during their attachment and 6.7% (n=10) felt unsure they would continue their medical career.

Conclusions
Early clinical introductory attachments in a medical student’s career can facilitate enjoyable and relevant learning experiences. This study illustrates consistently good feedback received from our students. Since an estimated 12% of medical students ‘drop-out’ of university [3], these clinical attachments may allow timely recognition of students who do not wish to become doctors. A significant proportion of our students did not feel part of a team; despite understanding the MDT approach. Heavy service-demands and the European working-time directive (EWTD) are impacting on NHS junior doctors’ shift-patterns and training [4], reducing continuity and time for supervision. Given these conditions, we need to identify ways to be more inclusive of students within our clinical teams.

References
Pre-clinical student perceptions and expectations of upcoming clinical placements

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Introduction
The transition period from the preclinical phase to clinical years is a time of stress, uncertainty and difficulty amongst medical students. Various retrospective studies have identified common themes in these groups including anxiety, lack of preparation and abrupt transition. However few prospective studies have been carried out, so the researchers investigated students’ perceptions and expectations just before starting their clinical years.

Method
Subjects were second year medical students at the University of Sheffield. Using convenience sampling we identified 28 students who were subsequently split into 4 focus groups (n=9, n=7, n=6, n=6). Each focus group was carried out by 4 different researchers, and open questions were used to gain students’ opinions. Content analysis was used to identify common themes in each group. The recordings from the groups was independently analyse by the 4 different researchers to improve the inter-rater reliability.

Results
There were similar numbers of males and females in each group and we gained appropriate contributions from all individuals in the group. Through discussions, we reached consensus on clustering various themes identified into a groups. We identified workload & time, anxiety, interactions between medical professionals, management of course, lack of clinical skills and knowledge and travel & cost as issues.

Conclusion
Themes that were elicited from the focus groups reinforced many already identified in the literature like anxiety and workload. However we did discover new themes like travel cost and organisation of clinical placement. Although plenty of time is spent by the faculty to address these problems, we felt that more student contribution to the planning of the clinical years can help ease this transition period.

References
International Medical Education
Community- and Hospital-Based Teaching in the Medical Curriculum – Examples from Cuba and the United Kingdom

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Background and Purpose
Medical schools in Cuba place a strong emphasis on community-based teaching within the main curriculum. In the United Kingdom, emphasis is placed on hospital-based teaching. Cuba’s healthcare system is successful in providing good healthcare to her citizens and with good outcomes. For example, in 2006, Infant Mortality Rate per One Thousand Live Births is the same in Cuba and the United Kingdom (5 per 1000 live births)¹. Within the National Health System (NHS) in the United Kingdom, there has been an increasing emphasis for significant clinical care to shift from the hospital to the community², as well as primary care-led services commissioning³. This work forms the foundation for further research into community settings in which medical students can learn.

Methodology
We reviewed the advantages and disadvantages of community- and hospital-based medical teaching from the literature and from staff experiences at the Department of Primary Care and Public Health Sciences, King’s College London School of Medicine. We also compared the community component of two medical curricula: Latin American School of Medicine (ELAM), Havana; and King’s College London School of Medicine (KCLSOM), London.

Results
We noted that one of the major advantages of learning in the community is the development of the Five-Star Doctor⁴; namely being a care provider; decision maker; communicator; community leader and manager. These qualities enable one to meet the fundamental values of a good healthcare system: relevance, quality, cost-effectiveness and equity. The disadvantages of learning in the community include travelling, the varied standards of teaching received and the unpredictability of the cases encountered. The percentage of the medical curriculum spent in the community is approximately 20% at the turn of the century for ELAM⁵, and 14% for KCLSOM⁶. A major difference is the greater continuity of time spent in the community at ELAM compared with KCLSOM.

Discussion and Conclusions
Community-based teaching provides a useful setting to develop the Five-Star Doctor and the role for doctors as ‘managers of resources, leaders in the public understanding of difficult and contentious issues, and innovators and integrators of new knowledge’⁷,⁸. Given the increasing role of the Community context in health care provision within the NHS, opportunities to increase community based teaching should evolve. Learning in the community, with clearly defined aims and objectives, may therefore increase significantly. However the actual and perceived disadvantages will need to be addressed.

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Challenges of Continuing Medical Education in Saudi Arabia’s hospitals

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Background
Health care services in Saudi Arabia are expanding rapidly. However, the country is struggling to cope with the lack of competent health professionals. Continuing Medical Education (CME) encounters some challenges that hinder learning programme from responding appropriately to professionals’ demands and needs, and to the complexity of health care.

Methods
The study used a mixed methods (qualitative and quantitative) approach. Depth, semi-structured interviews were followed up with a questionnaire (sent by email) listing all CME challenges identified by the interviews, asking participants to rank them.

Sampling
Seven public hospitals were selected from different geographical areas (N=7).
• Snowball sampling targeted 33 medical education representatives from different Medical and Para medical departments (N=33).
• Purposive sampling targeted 11 medical librarians (N=11).

Initial results
The major CME challenges were identified and divided into five themes:
1. Health care resources
   • Poor medical library; location, space, and services provided (old textbooks, limited internet and e-journals subscription).
   • Lack of the CME budget transparency.
2. Topics of learning programme
   • Duplicated.
   • Not at the level of staff.
   • Don’t reflect staff and department needs.
3. Designing of learning programme
   • Methods of identifying needs are limited.
   • Activities are delivered using passive methods.
   • Lack of planning and designing policy.
   • Lack of formal written evaluation.
4. Staff
   • Diversity of staff’s backgrounds and educational needs.
   • Staffs lack interest to attend meetings.
   • Resistance to changing performance.
5. Decision makers
   • Lack of knowledge about needs.
   • Exerting influence over programmes.
   • Developing programme for the sake of reputation.

Discussion
CME budget lacks transparency that may result in heavily reliance on pharmaceutical industry subsidy for CME events as well as to sponsor medical professionals’ trips. This may affect the quality of the events or cause bias.
Staff diversity was a major challenge as they came from different training and educational backgrounds; however, learning programmes lacked needs assessment, resulting in activities that may be based on desires and wishes rather than on actual needs.

**Conclusion**

The study showed a strong correlation between the stakeholders’ lack of knowledge and support, and CME limitations, this primary problem as well received the highest ranking in the study.

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An “Introduction to Theatres Workshop” as a teaching tool for medical students

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Background and Purpose
Attendance in operating theatres has long been part of medical school curricula. This can be an intimidating environment for medical students(1), and a lack of understanding of basic etiquette can be problematic for theatre staff. It has been shown that medical students also have a deficit in knowledge of principles of infection control(2), and therefore there is the potential for patient safety to be compromised. Whilst there is some evidence that formal teaching relating to operating theatre etiquette does increase student confidence, as well as enhancing enthusiasm for surgery as a career(3), there is a lack of validated teaching tools to deliver this information. Our aim therefore, was to design and deliver a workshop that could be validated as an introduction to operating theatres, as part of an undergraduate surgical placement at a UK medical school.

Methodology
Input from previous research(4) and questionnaires sent to consultant surgeons and medical students were used to develop a workshop teaching plan. This workshop was delivered to 2 cohorts totalling 76 University of Leicester medical students undertaking a surgical placement. Feedback from the students was collected on a 10-point Likert scale questionnaire.

Results
Consultant surgeons and medical students had similar opinions on what should be included in the workshop. Competencies rated most important were principles of sterile fields/theatres and infection control, case preparation, surgical scrub technique, and theatre etiquette – these were subsequently selected as teaching aims for the workshop. The need for the workshop was reinforced by a perceived difference in current standards in the suggested competencies between medical students and consultants (mean difference 2.25/10).

On delivery, a large majority of students agreed that the workshop was useful (87% rated the workshop as ≥7/10) and met the learning objectives (99% ≥7/10). 84% stated that they had increased confidence following the workshop (≥7/10) and 95% would recommend the workshop to their peers (≥7/10). Students highlighted that this workshop would be best run before any theatre experience.

Discussion and Conclusions
Initial student feedback to this “Introduction to Theatres Workshop” for medical students has been very positive. Over the coming months changes will be made in response to feedback and the workshop will be delivered to theatre-naive medical students. Consultant surgeons will be sent a further questionnaire to subjectively determine whether they feel there has been an improvement in medical student learning in theatre, and assessments carried out to achieve an objective measure.

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Students as co-educators using e-learning to standardise undergraduate medical teaching

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Background and Purpose
In year 3, as medical students we have the opportunity to develop innovative online learning materials as part of the Student Selected Components Programme providing opportunities for independent study and development of new skills. Our aim was to provide a core e-learning teaching resource for ear, nose and throat (ENT) that could be accessed by our peers on the Bristol Medical School online learning website. This would provide a standardised learning resource and address the variability in teaching that students experience because they are taught in unconnected geographically-dispersed NHS-based Academies1.

Methodology
Results accumulated from qualitative research in the form of questionnaires identified that medical students prefer to learn in a variety of ways. Based on this, we produced a user-friendly, problem-based, interactive and clinically relevant tutorial, which builds upon and tests students’ knowledge. We developed the tutorial combining several tools: Final Cut2 to produce examination videos, Dragster3 to produce pictorial labelling exercises, and eXe4 to combine these elements alongside core text based materials.

Results
Our tutorial received approval for both its design and medical accuracy. User-testing to date has received positive feedback. Students commented that it is a useful resource that they will incorporate into their studies because it fills the ‘gaps’ in their teaching. The tutorial will soon be accessible online allowing us to run more extensive user-testing and draw wider conclusions. The tutorial production process has been an invaluable learning experience. We have developed a range of skills including technological skills, project management, problem solving, collaborative team working and the ability to construct information in such a way that it can be used to teach others.

Discussion and Conclusions
The tutorial provides students with a standardised ENT learning resource, providing reassurance that they are all receiving the same core teaching. The skills we have developed will be applicable throughout our medical career. In particular, all doctors have an obligation to teach and producing the tutorial has developed our skills as medical educators at an early stage in our careers. Following the success of our SSC, we believe the role of students as co-educators is important and one that should be expanded. Working with both clinical and e-learning experts in this way provides an effective example of students engaging in and influencing their own curriculum5.

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Does Previous Degree Matter in GEP Courses?

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The Medical degree in University of Algarve was the first graduate-entry course with a 4-year, PBL-based curriculum in Portugal.

We have students from different backgrounds and the question arose whether there would be measurable differences in academic achievements between different groups and whether those differences, if existing, would disappear during the course. We aggregated our first cohort of students (30), now in their second year, in five clusters: nurses (11), health technologies (3), biological sciences (9), psychology (3) and pharmaceutical sciences (3) and compared the results obtained in three different types of assessment. The first was a standardized progress test organized by the International Partnership for Progress Testing; the second was an OSCE with 12 stations and the third was a workplace-based assessment (WBA) performed weekly in the GP rotations. Second cohort students (31) were divided into three groups: nurses (12), health technologies (8), and biological sciences (5).

We show results from 5 progress tests, one OSCE and 40 WBAs for our first cohort of students and 2 progress tests and 10 WBAs for our second cohort. We found no significant differences in academic achievement between our two most numerous groups in the first cohort in all progress tests but one. No significant differences were found in the OSCE and WBA.

In the two first progress tests of our second cohort the results achieved by the groups of biological sciences and health technologies were significantly lower than the results achieved by the nurse’s group. The WBAs so far performed in the second cohort of students showed no significant differences.

The results from our first cohort seem to indicate that a student’s previous degree has little or no effect on the overall academic results. The progress tests of our second cohort, on the contrary, suggest that previous degree may affect academic results, at least in that component. The explanation for this observation may simply be chance, due to the small numbers studied, or it may be due to the fact that the first progress test was applied to the first cohort in January while the second cohort had its first test in October, at the start of the course.

We expect that, as further data is accumulated, it will become clear to what extent academic results in our graduate entry program are influenced by the type of degree the student obtained previously.
**Student conferences: unique opportunities for personal and professional development**

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**Background**
A career in academic medicine requires many skills which have been identified as fundamental requirements for junior doctors. A student-led academic medicine society, ATRIUM, organised an annual conference inviting medical student delegates from across the UK to present their research in a student-friendly and accessible environment. We outline how participation led to the development of key skills and competencies for delegates and organisers, and investigate what students believe are the main incentives and disincentives of a career in academic medicine.

**Methods**
The conference was held successfully in November 2010. UK-wide publicity led to 241 abstract submissions which, after anonymous marking, were accepted for 6 oral and 100 poster presentations. After the conference, questionnaires were given to participating delegates and staff to address the study’s objectives.

**Results**
Feedback from completed questionnaires (n=92) indicated that the majority of delegates were senior medical students who had previously completed an intercalated degree. Encouragingly, 85% of delegates felt that the Conference improved their confidence in presenting at national meetings. The main incentive identified by delegates for a career in academic medicine was a desire to carry out research, while the main disincentive was competing pressures between clinical medicine and academia.

**Discussion**
Organising and presenting at the Conference led to development of skills in key domains for both organisers and delegates. These are transferable to the clinical setting and will be useful for careers both in and outwith academic medicine. Therefore, we encourage students to attend and organise student-led conferences to enhance their professional and personal development.
Management and Administration
Leadership and Management Training: Are we hitting the mark?

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Background
It is well recognised that effective clinical leadership is closely linked to organisational performance\(^1\). As the NHS shifts into a period of growing uncertainty, effective clinical leadership is more important than ever. Increasingly there is recognition that leadership and management training needs to been incorporated into the medical curriculum\(^2,3\). However one of the challenges is how do we support the next generation of clinical leaders in developing the competencies necessary for their future roles.

Today’s postgraduate medical training is evolving to meet these challenges but how closely are we meeting trainees’ needs and expectations?

Objectives
To assess and determine how well trainees’ needs in leadership and management training are being met. To understand what aspects of leadership and management training are significant to trainees.

Method
We conducted a survey of doctors across all disciplines in training positions between Feb 2010 and May 2010 in a London teaching hospital. 80 questionnaires were sent out and in total 59 responses from doctors at various stages of training were received.

Results
64% had been working in the NHS for over 5 years. Despite this level of experience only 1 responder felt that current post graduate training provided adequate leadership and management development opportunities. Informal and unstructured ‘on the job’ learning provided the bulk of the experience. There was a strong desire to gain further teaching regarding; setting up of a clinical service, business planning, change management, financial flows in the NHS and building effective teams.

Conclusions
These findings clearly indicate there continues to be a gap in post graduate clinical leadership and management training. It supports the need to continue development of training programmes to address the needs of tomorrow’s consultant. The findings also help to inform on some of the areas that need to be addressed.

References
Leadership and Management Training: An Executive Shadowing Programme for Trainee Doctors

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Background
There is increasingly a ‘disconnect’ between doctors and medical management1. As future clinical leaders, trainee doctors will be expected to take an active role in developing clinical services. Unfortunately, trainees’ practical experience of service management is limited, although they typically attend classroom-based ‘management courses’ prior to applying for consultant jobs. This approach ill prepares them for their future role.

Objectives
To provide and evaluate a four-month Executive Shadowing Programme for trainee doctors (funded by an award from the London Deanery) between October 2010 and January 2011 at UCLH.

Method
The programme was advertised to UCLH specialist registrars and six participants (level ST5 and above) selected. Following a one day introductory workshop, they were provided with a mentor and attended a variety of committees and clinical board meetings, the selection of meetings tailored to meet their individual learning needs. The trainees were asked to consider how actions are planned, monitored and outcomes evaluated, and how the Trust responds to and resources the healthcare needs of patients.

Meetings with mentors explored these issues further and stimulated additional conversations. Trainees were asked to take their learning back to their clinical team. A final meeting attended by the trainees and mentors gave the trainees an opportunity to feedback about their experiences of the programme.

Results
The feedback from the trainees was overwhelmingly positive. All said that they had a clearer understanding of the role of managers and the relevance of management to their own clinical specialties. Quotes included “I am much more aware of trust goals, PCT demands and clinical priorities”, “I feel inspired to take on a leadership role”, “I have a clearer picture of how management fits into my clinical work”. All enjoyed the practical nature of the programme; two trainees had taken up audit projects with renewed vigour, understanding more clearly their relevance. Others had applied their learning to pathway redesign. Suggestions for improvement of the programme were to increase the duration to six months and to require each participant to undertake a project during the programme.

Conclusion
This programme has provided trainee doctors with a unique and low cost opportunity to learn about management within the Trust. Similar programmes in other trusts should be encouraged to enable doctors to gain a greater understanding of the role of management, address the learning needs of tomorrow’s consultants and reduce the disconnect between doctors and management.

References
A clinical approach to the management of unprofessional behaviour in medical students

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Background
The management of unprofessional behaviour in medical students remains challenging for UK Medical Schools but important to recognise and document as particular patterns of behaviour can recur during postgraduate practice (Papadakis et al. 2005). The GMC document: Medical students: professional behaviour and fitness to practise 2007 states that medical schools will decide if individual students are fit to practise by the time they graduate, that thresholds for unacceptable behaviour should be defined and decisions should be taken on a case-by-case basis. Leicester Medical School has taken a diagnostic approach to the management of unprofessional behaviour in undergraduate medical students utilising a standardised referral tool and a team-based approach to guide decisions, similar to clinical triage and assessment services used in community settings.

Methodology
An iterative approach was taken to establish a diagnostic process in an academic setting following literature review. A series of case-based discussions involving senior academic staff were used to define thresholds for intervention and categorised using a traffic light coding system. Anonymised past examples of student unprofessional behaviour were reviewed by clinical academic staff to obtain a consensus opinion on the structure and content of a reporting tool. Further consultation with students, NHS and administrative staff was used to determine usability and acceptability. The Leicester Medical School professionalism reporting form (Yellow Form) was launched in 2009 at the Medical School and all clinical areas.

Results
The Professional and Academic Concerns group was established in 2009 to monitor the performance of students giving cause for concern and has evaluated 430 students to December 2010. The group meets regularly to consider all yellow form submissions, assigns and reviews codes and determines outcome based on the nature, severity and frequency of the concern raised for individual students. The group operates a range of interventions from written work to promote reflection on professional attitudes, through to sanctions including referral to Fitness to Practise proceedings.

Conclusion
Leicester Medical School has successfully used a diagnostic approach based on a clinical model of care to improve the documentation and categorisation of unprofessional behaviour in medical students to facilitate early intervention and active management.

References
Assessing the Usefulness of the Professionalism Concerns Form

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Aims and Objectives
1. To assess whether professionalism concerns forms are a useful indicator of summative assessment results
2. To assess the difference in concern types between academically strong and weak students
3. To assess whether there is a link between student concern coding and summative assessment result

Introduction
It is necessary to monitor medical students' professionalism in order to comply with GMC guidance. A professionalism concerns form, adapted from a reporting system used at San Francisco School of Medicine, was introduced to Leicester Medical School in 2009. The form can be completed by any member of staff, and feeds in to the Professional and Academic Concerns Group (PACG), which makes decisions of student coding (green, amber or red), subsequent action to be taken, and referrals to FTP/APC as appropriate. This study was carried out to assess the validity of these forms and concerns codes in predicting students who may be at risk of not progressing on the course.

Method
First and Second Year Students were selected for study and were subdivided into those who had been satisfactory (n=265) and those who were unsatisfactory (n=159) in their most recent summative assessments. The concerns forms were then analysed to show: total number of forms received; and category of concern. The concern codings for all students prior to their most recent summative assessment were also analysed to note the number of students in each group.

Results
1. 17% of students who were unsatisfactory received concerns forms, compared to 11% of satisfactory students. A chi-square analysis found a significant link between concern forms and summative assessment results.
2. The proportion of concerns forms received for “diminished relationships with school” and “unmet professional responsibility” were similar between satisfactory and unsatisfactory student groups. However, a higher proportion of concerns forms in the category “lack of effort towards self improvement” were received for unsatisfactory students.
3. 27% of unsatisfactory students were already in the PACG system compared to 7% of satisfactory students. Of the coded students, 18% of unsatisfactory students were coded as amber and 8% as red, compared to 5% and 2% respectively in the satisfactory group.

Conclusions
1. Professionalism concerns are linked to academic progression.
2. Students who fail to engage with the remedial process are more likely to be unsatisfactory at summative assessments.
3. The PACG system is identifying students who are likely to be unsatisfactory in assessments.
References

1. GMC. Tomorrow’s Doctors 2010
Developing quality criteria for practices undertaking undergraduate medical teaching in Scotland

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Background
In 2009 we presented, at this conference, a poster describing the development of a Scottish GP Tutor Group that aimed to offer a “bottom up” approach to the development of quality standards in General Practice Undergraduate Teaching. Comment was made that “Quality” was very much on the NHS agenda and that this approach was likely to be very productive.

The Schools of Medicine across Scotland place medical students on attachment in general practice for varying periods of time, dependent upon their own curricula. While the School of Medicine in Edinburgh tends to place most students in the local area, the other Schools use practices throughout Scotland and there is significant amount of overlap in the sites used. Using different systems and personnel to approve these practices and tutors was, we considered inappropriate and wasteful of both time and resources.

Methodology
A modified Delphi technique was used to undertake this exercise. Participants, all experienced experts in approving undergraduate practices, reviewed their own processes and the literature in the light of existing quality criteria. Initial thoughts suggested the need to develop criteria which related to the Tomorrow’s Doctors Framework, the NES Quality Framework for Postgraduate Medical Training and which were both practical and measurable. Subsequent meetings rationalised an initial list of items to a concise and workable framework.

Results
Over a series of meetings and email discussions the group developed a set of criteria that sat under the headings
- The Tutor as a Doctor
- The Tutor as a Teacher
- The Practice as a Learning Environment

Conclusions
Five Universities have worked together to develop quality criteria for the approval of undergraduate teaching practices. The tool is now used by all Departments as they approve and revisit undergraduate training practices. We plan to undertake an evaluation of the tool after it has been in use for 1 year.

References
3. Cotton P Developing a set of quality criteria for community-based medical education in the UK. Education for Primary Care 2009 20: 143–51
Current teaching practices in outpatients in a small hospital; are teaching clinics the answer?

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Background and Purpose
Many small hospital trusts deliver medical undergraduate clinical programmes. Traditionally, district generals are perceived not to have a strong teaching pedigree. The capacity to accommodate students in outpatient clinics can be harder to arrange than in large ‘teaching’ hospitals. Pressures from the clinical workload on the teacher can prevent delivery of a useful experience. Teaching clinics, where patient appointment times are extended, have been advocated as good learning experiences. They certainly encourage active learning by the student, but have financial implications for the provider. The aim of this project was to evaluate present clinic activity, and to assess the possibility of setting up teaching clinics.

Methodology
A simple questionnaire was given to every consultant in the general outpatients department in one week. The questionnaire asked about current attendance of students, and what they felt about students attending clinics in the future. There was an opportunity to express willingness to be involved in a teaching clinic.

Results
82% of consultants replied. 27% were from visiting tertiary specialities. Every consultant felt students benefited from attending their clinic. One third accepted two students in a clinic, with only one speciality, saying they were too busy to accept students. 28% of those clinics who currently took one student, felt they could not accept any students. Students were expected to clerk and present the patient in half the clinics, the rest shadowed the consultant. One third of consultants said they had last seen a student in their distant memory, and this corresponded to an expression of preferring not to have students in clinic. No consultant said they saw students more than once a month.

The biggest constraint to accepting more students was unanimously time, space, and overbooked clinics. 50% of consultants would be interested in a dedicated teaching clinic. The willingness to consider a teaching clinic did not reflect current clinic teaching practices.

Discussion and Conclusions
In our small hospital we have consultants who are willing to teach, including being involved in teaching clinics. Currently, service commitments inhibit them from teaching students even though everyone one agrees experience in the outpatient environment benefits students.

As an educational provider we must continually reassess what learning opportunities we can provide. This may include the introduction of regular teaching clinics with reduced patient load. This project has proven the willingness of our teachers, and we need to consider how to utilise their enthusiasm and skills, in the organisation of dedicated teaching clinics.

References
Postgraduate Education
Why do General Practice in the second year of Foundation Training?

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Introduction
The Collins report highlighted the need to expose junior doctors to community medicine to develop doctors suited to deal with the increasing primary care demands of an ageing population\(^1\). As part of course evaluation we assessed Foundation 2 doctor’s perspectives on their general practice placements, within non GPVTS training practices within Northern Deanery.

Methods
Fifteen FY2 doctors were invited to complete a questionnaire exploring learning opportunities during their General Practice attachments. Questions were aimed at evaluating clinical support, teaching experience, workload and influences on career choice. Participants were encouraged to add free text comments.

Results
We had a 73% response rate (11/15). 6 had plans to apply to and 4 were considering general practice. No doctor had to work beyond the EWTD and they were all allowed to steadily increase their workload. All respondents stated that they had teaching directed towards their learning needs, with constructive feedback and adequate clinical support. Participants agreed that they had a better idea of the roles of the primary health care providers and how to work within a multidisciplinary team. During the placements trainees had the opportunity to take part in joint visits, IT training, and 90% completed an audit. All had their referrals reviewed and 90% had their medical records evaluated. 60% reported experience of DOPS with nine different procedures described. 100% enjoyed their placement and stated they would recommend this attachment.

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<td>IT training</td>
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<td>Role play</td>
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Discussion
The results show that a high proportion of the doctors involved in general practice placements were considering this as a career, with 5 free text comments suggesting that the rotation had a positive effect on this career choice. Results found that doctors enjoyed having an influence on their workload and found the supportive atmosphere of general practice helpful in addressing their learning needs. Graded responsibility was appropriately given. Doctors had an array of learning opportunities available, including seeing patients in their home environment and observing healthcare at a primary level. Although DOPS are harder to achieve outside of the hospital environment the survey suggests that there are opportunities within the community to fulfil the foundation curriculum.
Conclusion
Community placements are felt to be increasingly important within foundation rotations as pressures on primary care increase. Responses to our survey show that they offer varied and high quality learning opportunities and enable foundation doctors to address their learning needs and fulfil curriculum requirements.

References
Foundation doctors and patient death

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Background and Purpose
Patients die. Care of the dying is recognised as important by the GMC and the Scottish Government.1,2 Many of the competencies identified within the Foundation Curriculum relate to care of the dying.3 We sought to perform an educational needs assessment to inform the development of an educational intervention for Foundation doctors based in the North of Scotland deanery.

Methodology
A triangulated approach was used including a literature review, questionnaire survey, analysis of expert opinion and other published curricula. The postal survey was sent to all (n=132) year 1 Foundation doctors in the North of Scotland deanery 6-9 months after they had started their Foundation posts.

Results
The survey confirmed that exposure to death was common and distressing for junior doctors in the North of Scotland. Communication tasks around care of the dying were perceived as more difficult than practical tasks. Lack of support (particularly from consultants) and concerns about overtreatment were significant issues.

The synthesised educational outcomes resulting from the analysis of the literature review, questionnaire survey, expert opinion and other published curricula are presented as per Harden’s 3-circle, 12-outcome model.4

Discussion and Conclusions
It is interesting to note that the needs identified from the questionnaire and literature review of junior doctor experiences relate more to emotional, analytical and personal competencies rather than cognitive or technical competencies. To address these needs, a small-group, case-based teaching intervention has been introduced to the North of Scotland Foundation teaching programme. This intervention has been positively evaluated, however, ongoing concerns around educational supervision, lack of support and negative role modelling may mean that any lessons learned do not transfer well into the clinical environment.

References
3. Academy of Medical Royal Colleges. Foundation Programme curriculum. 2007.
Aspirations for Intensive Care Training in North West England

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Background and Purpose
Intensive care medicine (ICM) is a relatively young speciality in the midst of considerable political and organisational change. National bodies are striving to unify and standardise the speciality, not least in matters surrounding training. ICM trainees originate from a parent speciality and part of their training comprises an ‘advanced year’ as a senior registrar. This study sought to evaluate the advanced year in North West England and ask: how can advanced training be improved to ensure trainees are better prepared for consultant roles?

Methodology
A panel of 35 experts was recruited. The definition of an expert was ‘any clinician with intimate experience or involvement in advanced ICM training’. The panel consisted of a mixture of trainees and consultants including some heavily involved in planning and delivering advanced training.

Using the Delphi method, panellists anonymously submitted suggestions on how to improve advanced ICM training (Round 1). Panellists were then shown all suggestions (Round 2) and asked to score them (1-5; 1=poor, 5=excellent). Finally panellists were presented with suggestions with mean scores >4.0 and standard deviations (SD) <1.0 and asked whether they should be considered for implementation (Round 3). An agreement level of 75% for Round 3 responses identified suggestions for the final consensus view.

Results
Round 1: 34 panellists (97%) provided 350 suggestions for change to advanced training. Analysis of common themes and repetitions by an independent researcher and the lead author refined this to a common list of 171 suggestions.

Round 2: 29 panellists (83%) submitted scores. 113 suggestions were eliminated, leaving 58 that scored highly (Mean >4.0 and SD <1.0).

Round 3: 31 panellists (89%) agreed (at the 75% level) that 39 of 58 suggestions from Round 2 should be considered for implementation and formed the basis of consensus opinion. Of these 39 suggestions 14 related to improving the provision of non-technical skills training relevant to critical care; another 14 concerned the promotion and logistical organisation of the advanced year.

Conclusions
The Delphi technique was useful in ascertaining a consensus expert opinion on how to improve standards in advanced training with local resources and experience in mind. Particular focus areas included non-technical skills training and refining the promotion, organisation and delivery of the advanced year. Work has begun on a trainee directed checklist to address these areas. We envisage a more diverse and holistic training experience resulting in Northwest trainees being better prepared for consultant roles.
Simulation before reality. A practical course in endoscopic simulation prior to endoscopy in patients

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Introduction

Often endoscopy sessions are limited and time constrained thus restricting the number and range of trainees able to learn endoscopy; or trainees have other commitments limiting attendance to sufficient sessions [1]. Various studies demonstrate that endoscopy simulation improves hand-to-eye co-ordination and learning curves are reduced [1, 2, 3, 4]. We propose all endoscopy naïve trainees must complete modules using endoscopic simulation (Simbionix GI Bronch Mentor) prior to performing endoscopy with patients – initially commencing on programmes for diagnostic oesophagastroduodenoscopy (OGD). Candidates include endoscopy naïve trainees who are prospective Medical Gastroenterology or Gastrointestinal Surgical trainees, wishing to train in endoscopy at Homerton University Hospital NHS Trust.

Objectives

1. Introduce endoscopy-naïve trainees to endoscopy
2. Promote patient safety by ensuring trainees have basic skills prior to performing endoscopy with patients
3. Promote educational excellence by increasing number of trainees given the opportunity to train in endoscopy
4. Use of endoscopic simulator:
   - Trainees: complete assigned modules (4-5 cases per module) during self-directed learning time
   - Trainer: review trainees’ progress after each module, provide constructive feedback before trainee proceeds to next module

Methodology

An experienced endoscopist presents an introduction to endoscopy to trainees via lecture format: including endoscopic equipment, safety, patient consent and safe sedation as per Joint Advisory Group (JAG) curriculum; followed by induction to the endoscopic simulator. Trainees complete assigned modules. Each module contains 4-5 cases for the trainee to practice endoscopy, taking approximately 45-60 minutes to complete allowing for practical endoscopy time and writing of report demonstrating management. Progress is reviewed by an experienced trainer (constructive feedback to improve performance [5]) at the end of each module via video-replay of performance. If progress is satisfactory and the programme of modules completed, trainees receive a certificate of simulation completion, and are assigned to a consultant-supervised endoscopy session, training with patients. Trainers assess further progress via double direct observed procedural skill (DOPS) assessment of trainee after 3 months of performing endoscopy with patients – aiming to perform approximately ≥ 200 OGDs, as recommended by JAG. If performance is acceptable and safe then the trainee is signed off (e-portfolio) and advances to other endoscopy procedures if desired (e.g. therapeutic OGD, flexible sigmoidoscopy).

Conclusions

This scheme was commenced in December 2010 and endoscopy naïve trainees are undertaking this training programme. Feedback from the trainees will be obtained after completion assessing if they found simulation and constructive feedback useful towards their training.
References
Selection
Will rising tuition fees change the demographic of future doctors and dentists: A survey of current medical and dental students?

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Background and Purpose
The recent government vote to increase tuition fees to a maximum of £9000 / annum, will impact young people’s decisions to enter higher education. Students who choose to study medicine or dentistry could face £45,000 of student debt in tuition fees alone and an estimated £75,000 debt overall1. In the last 5 years the government has invested significant amounts of money to give opportunities to lower socioeconomic groups, and to maintain diversity between students, however these efforts could be wasted2. Will this increase in tuition fees during a time of global recession make low income students believe that a career in medicine or dentistry is unattainable? Will doctors and dentists of tomorrow originate from a socio-economic group that is not representative of the majority of patients they will be treating?

Methodology
A questionnaire was distributed among students containing questions about current students background education, socioeconomic status, opinions on the tuition fee rise and their opportunity to study medicine or dentistry had this been the situation at their time of entry. A paper copy of the questionnaire was distributed in student recreational areas and an online copy was emailed out in a student bulletin. On completion of all the questionnaires a focus group with 10 students will be completed discussing options for students hoping to fund these high fees.

Results
120 questionnaires have been collected to date and further responses continue to come in. 80% of responses are from medical students, and 20% from dental students. Preliminary results show a very small proportion of medical and dental students are from the lowest socioeconomic group. The majority of students are against the tuition fee rise, however those students who have had state funded education in the past feel that these courses would have been unattainable had the costs been this high at their time of entry. Following the focus group, options for coping with these financial burdens will be presented.

Discussion and Conclusions
The preliminary results show that a rise in tuition fees will change the demographic of medical and dental students. More students will come from independent schools rather than from state funded schools. This could have implications on the quality of future patient care. Forums and advice must be provided for students who feel that these careers are unattainable due to financial constraints. The government could develop a scholarship or assisted places scheme for medical and dental students.

References
Staff Development
Staff attitudes regarding self-harm: does training help?

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Background
The attitudes held by clinical staff towards people who self-harm (SH), together with their knowledge about self-harm, are likely to be important influences on their clinical practice and hence the experiences and outcomes of those they treat. We sought to explore whether training in this area was associated with any improvements in attitude towards this patient group.

Method
We conducted a systematic review of both qualitative and quantitative studies of staff attitudes towards and knowledge about people who engage in SH where staff were involved in the provision of services to them. A comprehensive search was performed of all relevant electronic databases.

Results
Of sixty-nine studies that explored staff attitudes towards patients who self-harm ten reported the impact of training. A variety of training models were used but all focussed on risk factors and how to conduct an assessment rather than attitudes per se. Significant improvements in self-reported attitudes and confidence were reported with training in both general hospital and psychiatric staff in the majority of studies. Attitudinal change was sustained at longer term follow-up in one UK study even though knowledge had deteriorated. The only study that failed to show improvement following training only made use of a notice board and information folder suggesting that a more formal and interactive approach is required for training to be successful in changing attitudes.

Discussion and Conclusion
The results provide support for the concept that improvements in knowledge and understanding can lead to the development of more positive attitudes towards patients. Formal training of all clinical staff in the management of self-harm is a specific requirement in the NICE guideline (2004) however, at present there is no nationally agreed framework or curriculum for this and existing training opportunities are often poorly attended due to the low value placed on this client group. The shift towards non-medical staff carrying the responsibility for frontline psychiatry is likely to mean that assessors are less likely to be aware of the evidence base or to have received formal training in the assessment of self-harm as part of their professional training. If we are to truly understand the impact of training more meaningful forms of assessment (e.g. patient feedback) should be used particularly given how difficult attitudes are to truly quantify.

References
Hi Fidelity, Multidisciplinary Point of Care Simulation

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Introduction
There is little doubt that simulation is a useful tool in reducing risk within high-risk industries. It allows for the repeated practice of rare or dangerous events in a risk free environment and enables the real life event to be dealt with on the foundation of detailed rehearsal.

In-situ simulation, where the simulated experience takes place within the familiar workplace offers many potential advantages.

Here we outline a programme of in-situ, multidisciplinary team based simulation in an actual operating theatre. The objective of the simulation was to train the teams to deal with demanding situations and to help develop standard operating procedures for different adverse incidents.

Methods
Our hospital is a large, 550 bedded district general hospital in North Wales, UK. We have 11 operating theatres within the main theatre suite and a number of ancillary operating theatres throughout the site. During a period of shutdown for routine theatre maintenance, we utilised a vacant theatre and an adjacent anaesthetic room to run a series of simulated critical incidents.

The theatre was equipped with permanent IP cameras, attached to MetiVision, a digital audio-visual system. We utilised a wireless METI iSTAN high-fidelity mannequin in a theatre that was fully equipped with all usual surgical and anaesthetic equipment. Prior to the entry of the multidisciplinary theatre team, the mannequin was draped and prepared for surgery, in an identical fashion to an actual patient. The scenarios used were total power failure, fire in the anaesthetic room and total pipeline failure.

Simultaneously, in an adjacent anaesthetic room, the remainder of the theatre personnel were able to watch a live video feed of events within the theatre. The non-participants were tasked with creating a list of problems identified during the scenario, with potential solutions.

The video recorded was used as part of a focussed de-briefing for the whole theatre team, targeting strategies for dealing with the simulated emergencies. Following the de-briefing, a further, identical scenario was run with a different group of individuals comprising the theatre team. A second de-briefing then took place.

Outcome
For each simulation, the strategies for dealing with the emergencies will be used to develop SOPs. The organisation also benefits from an increase in familiarity, understanding and engagement of staff with SOPs. The training was extremely well received by all participants and was perceived as less threatening and more relevant than that occurring in a simulation centre.
The Process of Creating a Postgraduate Taught Programmes Teaching and Learning Training and Resource Website

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Background and Purpose
The School of Medicine, Cardiff University delivers 21 postgraduate taught (PGT) campus-based and distance-learning (elearning) programmes across many disciplines, to over 1600 students per year. The programmes rely on a large number of tutors and lecturers, based in Cardiff and worldwide. Programme Directors expressed an interest in the creation of an online support, training and resources area for tutors. Creating this area will allow the training of tutors to be centralised and more efficient, therefore improving the learning experience for students and allowing tutors to feel valued. A cross-school working party consisting of academics, administrators and elearning specialists explored the needs of tutors involved in the delivery of PGT programmes and how best these could be met through online support.

Methodology
A meeting was held of academic leads and administrators representing programmes across the School. Through a process of small group discussion activities they identified the characteristics of an effective tutor, a list of skills tutors should develop and what resources and information they require to be effective. These were prioritised and the results were circulated to all programme leads for comment. An online needs assessment survey was then made available to all individuals involved in teaching and learning. This requested prioritisation of features identified by the programme leads, to see if the tutors’ expected and actual needs were the same.

Results
The 78 responses showed many similarities between what had been identified as the tutors’ expected needs and their actual needs. Areas highlighted as important included providing feedback effectively, facilitating online, delivering small group work sessions, developing study skills in learners, general information on aims and objectives of the programme and details of students’ educational backgrounds. 77% of tutors responded with willingness to undertake formal education for their skills development, preferably as an online course.

Discussion and Conclusions
Based on the results of the survey, a pilot website will be developed containing programme specific information and teaching and learning resources related to the areas prioritised by the teaching teams and their tutors. 61% of the respondents to the needs assessment have agreed to be involved in further consultations about the project. The long term plan will be to develop specific teaching modules to make an accredited programme. It is anticipated that we will report the findings from the pilot project in the poster at the ASME Conference in July.
GPs’ confidence in diagnosing and managing eye disease: A cross-sectional questionnaire study in London

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Introduction
Around ninety percent of General Practitioners (GPs) have only received undergraduate ophthalmology experience and its inadequacy has been long established. NHS reforms pressing for cost saving practices from physicians have put an important emphasis on reducing inadequate referral to secondary care. Ophthalmology represents a small proportion of presentations to primary care, but accounts for a considerably large number of referrals. Studies to assess GPs’ confidence with eye presentations and the influence of this on their referral behaviour are lacking.

Methods
A questionnaire of GPs working in London (n=29) assessed self-rated confidence in diagnosing (Dx) and managing (Mx) 14 common conditions under the headings: ‘lid problems,’ ‘red eye,’ ‘sudden loss of vision’ and ‘gradual loss of vision’ (GLOV) using a Likert scale (1-not confident to 5- very confident). Referral behaviour was also assessed for each condition in all participants. Access to and confidence in using basic ophthalmological assessment tools, training information and opinions on training were also sought.

Results
GPs were most confident with ‘red eye’ (Mean score: Dx = 4.1 (2-5), Mx = 4 (2-5)). Least confidence was shown with ‘GLOV’ presentations (Mean Dx: 3.1 (1-5), Mx: 3.1 (1-5). 32% of GPs with Snellen charts (n=27) and 43% of GPs with ophthalmoscopes (n=28) were not confident using them. Emergency and urgent referrals were seen to be more frequent for those conditions clinicians were less confident diagnosing. The difference in overall mean confidence scores for diagnosing eye conditions between those with (n=2) and without (n=27) postgraduate experience was of borderline significance (p=0.1). 38% felt they were less confident with ophthalmology than other specialties, 66% stated that ophthalmology required a high level of technical expertise and 66% had received less than four weeks of training as an undergraduate (n=29).

Conclusion
The data suggests that most GPs have brief experience in Ophthalmology as an undergraduate, may not be confident making basic Ophthalmological investigations and consequently exhibit low levels of confidence in diagnosing certain treatable causes of blindness. Our data also suggests that postgraduate experience may not affect GPs’ confidence in eye presentations. There seems to be a clear lack of high quality training in this specialty for prospective GPs.
Educator Appraisal in the North Western Deanery

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**Background and Purpose**

All hospital consultants are required to have an annual appraisal, conducted by their NHS employer. The appraisal should encompass all aspects of their role, including any educational elements. As the vast majority of consultants are engaged to varying degrees in medical education, as trainers, supervisors or managers, it is expected that their educator role should be appraised in some way. Deaneries must have structures and processes to support and develop trainers.\(^1\),\(^2\) A survey was designed to gather information on educator appraisal within the deanery.

**Methodology**

A survey of all hospital consultants in the North Western Deanery (NWD) was conducted to obtain data on educator appraisal. This online survey was conducted via a self-completion questionnaire, and data collected in a secure, anonymous way. The questionnaire was designed to collect both quantitative and qualitative data. Data was analysed to provide descriptive statistics to summarise the main features of the data set.

**Results**

There was a response rate of 20.1%. Only 17.7% had been appraised for their educator role, yet 91% of those who had not had educational appraisal had received a NHS employer appraisal. Roughly half of educational appraisals occurred during NHS Employer appraisal, predominantly by Clinical Directors. Of those having an appraisal of their educational role, most had not used the appraisal guidance or documentation recommended by the NWD at that time. Of those that did almost all found it useful in helping to decide what evidence to collect. 93.4% rated their appraisal as moderately valuable or higher with 84.2% receiving constructive feedback to develop suitable goals. Three-quarters of appraisees felt reassured they were fulfilling their educational role. Similar numbers felt the process had helped them identify personal and trust/specialty educational development plans. Some appraisers may warrant guidance on accurately conveying appraisal outcomes.

**Discussions and Conclusions**

Formal appraisal of the educator role appears to be a valued and key component of educator development. Uptake has previously been suboptimal. The NWD has now developed a simplified and specific appraisal framework [www.nwpngmd.nhs.uk/edudev/edroles.html](http://www.nwpngmd.nhs.uk/edudev/edroles.html), together with workshops for lead educators to support development of educational appraisal within Trusts and Schools. The uptake is being monitored through the NWD quality management process.

**References**

Development of An Interactive Suturing Skills Resource

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Background
A key concept in the development of a Clinical Skills Programme is to create practitioners with skills appropriate to the health needs of the population, rather than the needs of the practitioner or the health care system. The concept of shared fields of practice, of which suturing is an example, requires collaboration and equity among health professionals. This ensures that the impact of change is for the benefit of the patient.

One of the main criteria for the development of a suturing resource was that it would be relevant to all health care practitioners who have a requirement to carry out this skill as part of their care of patients in either a secondary or primary care setting.

Methodology
An interactive online resource was developed to enable health care practitioners to enhance their knowledge, skills and competence in suturing skills.

A standard development process ensures that resources are evidence-based and quality assured. An initial literature review was conducted and content was developed using an iterative process. Review of the resource was by an expert panel. The resource was also developed with representation from the relevant professional groups from different geographic locations within Scotland. This maximises transferability and eases implementation of the skill.

Results
The theoretical online resource is interactive and theoretical knowledge is assessed. The resource is also complemented by a series of workshops followed by a period of supervised practice within the workplace.

Conclusions
A social constructivist approach to learning is used which builds on theoretical and simulated practice and assessment, to enable supervised practice in the workplace. This multi-professional clinical skills resource aims to establish a standardised training for learning suturing skills for medical, nursing and relevant allied health care professions.
How useful is peer led education within the undergraduate medical programme? A qualitative study into the learning experiences of second year medical undergraduates in a single institution

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**Background / Purpose**

Tomorrow’s Doctors’ emphasizes the need for teaching skills in medical graduates. Numerous studies have shown peer led education to be a vital tool for the development of these skills. One such study identifies how peer led education develops teaching skills in medical students. It stipulates that peer led education allows students to gain a better understanding of teaching techniques, allowing them to become more effective learners, enhancing communication skills and improving their ability to interact with medical professionals and patients. This qualitative study evaluates the expectations and experiences of medical students undertaking the Student Selected Component: Peer Led Sex Education (PLSE) in the context of future benefits to their career.

**Methodology**

Data was collected from 19 Y2 University of Bristol medical undergraduates studying PLSE. Common pre-course goals were identified using data from initial expectations forms which outlined what students wished to gain from the programme. Post-course data was provided by reflective accounts of student learning throughout the course. Through evaluation of these accounts we identified common themes relating to the teaching and other skills gained. These were then compared to the initial expectations, identified at the commencement of the course and conclusions were drawn regarding the effectiveness of peer led education in developing students' teaching skills, as well as what other perceived benefits students had gained.

**Results**

Previous studies might lead us to expect benefits to the students beyond an immediate improvement in their skills as teachers. We expect to complete our analysis in the coming month. Based on previous studies, we anticipate that students might feel more confident to discuss sensitive issues with peers, a skill of importance in their future careers when dealing with patients. We might also find that students perceive learning in small groups to be more effective than conventional lecture-based teaching. Due to the peer led nature of the course, students may find that they are able to learn more effectively as they understood the bases of teaching methods being employed and how to adapt their learning to gain the most from them. Similarly, by understanding optimal conditions for learning, they may be able to adopt the most appropriate teaching methods to convey information most effectively.

**Conclusion**

We aim to report whether peer led education in medical undergraduate study allows students to develop their perceived teaching skills, meeting the guidelines in Tomorrow’s Doctors, as well as what additional benefits to intra and inter personal skills have accrued.

**References**

3. Knight AM, Carnese JA, Wright SM. Qualitative assessment of the long-term impact of a faculty development programme in teaching skills. Medical Education. 2007;41:592–600.
Student Support
Effects of Pregnancy and Parenthood on Studying Medicine

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Background

Medical training is demanding and medical students are faced with numerous course-related stressors such as role overload, numerous assessments, placements, financial difficulties and career choices. This psychological morbidity can potentially be exacerbated by responsibilities for a child.

The impact of pregnancy and parenthood on progression and matriculation of medical students has not been adequately addressed and the purpose of our study was to explore this impact.

Methodology

Using self-completion questionnaires, we conducted a study of medical students and newly qualified doctors (FY1) from a UK medical school to assess the impact of pregnancy and parenthood on studying medicine and explore students’ opinions, choices and attitudes.

Results

Total participants were 174 with age range 18 to 44. Table 1 shows the demographics. 77.6% of respondents believe that the decision to have a child is influenced by studying medicine. 23% have delayed becoming a parent and 7.5% have chosen not to have children because of medical training. The most common factors considered as a barrier for a parent/pregnant medical student are:

(Figure 2)

- Lack of time
- Financial difficulty
- Stressful, demanding and lengthy nature of the course
- Difficulty striking a balance between academic and social life

Among other factors, career progression, dispersed geographical nature of the course, childcare and welfare of child, lack of peer support and fear of discrimination in job applications and interviews are notable. Female students feel particularly under pressure by the burden of raising a family and many feel that taking time out may jeopardise their career and they have to choose between career and parenthood. Only 9.2% of respondents are aware of support systems available for pregnant/parent students. In our students’ opinion, studying medicine has implications on other aspects of their life: decision to marry, choice of partner and number of children they plan to have.

Discussion

The impact of pregnancy and parenthood on studying medicine is undoubtedly significant and considering more and more mature and second career students are enrolling in medicine, medical schools will be dealing with this issue on a grander scale. To ensure full and successful participation of parent/pregnant students in learning, additional or specialised support should be provided, including:

- Flexibility in programs and placements
- Faculty support
• Specific psychological and academic counselling services
• Sufficient and affordable childcare facilities
• Providing information about available support systems and financial entitlements for parent students (e.g. childcare funding)

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| Current marital status | Single | 74.1% |
|                       | Married | 7.5% |
|                       | Living with partner | 16.1% |
|                       | Separated | 0 |
|                       | Divorced | 0.6% |
|                       | Unanswered | 1.7% |

| Pregnant or parent students (either the student or the partner) | Pregnant during study | 6.9% |
|                                                              | Currently have children | 7.5% |
|                                                              | Planning to have children in the near future | 21.3% |

Figure 1: Demographics of study participants

Figure 2

References
Teaching About Specific Subjects
Ophthalmology teaching in medical schools

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Background
The place of specialty subjects within the undergraduate medical curriculum isn’t easy to define and teaching of these subjects varies widely from university to university. It is difficult to be sure of the effect of the amount and type of specialty teaching in medical schools.

Purpose
This project gives some insight into the teaching of ophthalmology at undergraduate level. It looks at factors that favorably influenced levels of confidence in ophthalmic knowledge among students as well as student perception of teaching.

Methods
Questionnaires were distributed in 11 hospitals in the North West deanery among Foundation doctors during the first rotation of their foundation track. 246 completed questionnaires were obtained.

Results
31.6% of the respondents had been taught for at least 5 days (recommended time according to International Council of Ophthalmology guidelines\(^1\)). Ophthalmic teaching was mainly delivered via lectures (76.0%) and in a clinical setting (69.5%). Factors that significantly increased levels of confidence in ophthalmic knowledge were: 1) being taught for recommended time or longer; 2) being taught in a clinical setting, i.e. by a consultant ophthalmologist or a GP; and 3) having done a special study module in ophthalmology.

28.1% of the respondents thought that the ophthalmic education they had received in medical school was adequate to prepare them for their job as a foundation doctors.

Student perception of ophthalmic teaching improved with longer teaching time - 12.7% (n=20) of those who had been taught for less than recommended time found ophthalmic teaching adequate, while 66.7% (n=48) of those who had been taught at least for recommended time found teaching adequate.

Conclusions
The results show that the students having received more teaching in ophthalmology were more confident in their ophthalmic knowledge, and were more likely to have found the teaching to be adequate. Unfortunately, the amount of ophthalmic teaching in medical schools was below international recommendations in more than two-thirds of the cases. Clinical exposure to ophthalmology seems to increase confidence in ophthalmic knowledge. Nearly three-quarters of the respondents thought that the teaching they had received was inadequate to prepare them for their foundation jobs.

References
Medical students’ feedback on a comprehensive teaching schedule offered in geriatric medicine

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Background
Geriatric medicine is generally taught integrated with other clinical medicine rotations in medical schools. With an increasing number of geriatric patients in any clinical setting, it is important to offer structured, specialty specific teaching which is tailored to meet student needs and various learning styles. The aim of our study was to assess the satisfaction levels of a dedicated teaching schedule for medical students in geriatric medicine.

Sampling Methods
132 medical students were posted in geriatric medicine in 6 blocks of 4 week each, with 5 sessions per week to be spent in the department. Students spend the other 5 sessions at the university. The teaching within the department was re-organized to meet the increasing learning needs of the students. A consultant-based teaching schedule was organized to offer 4 dedicated teaching sessions per week. Three different types of teaching sessions were offered: dedicated bed-side teaching, seminars and small group teaching. Students rotated through 3 different clinical environments were used: acute stroke unit, geriatric ward and community hospital. Three themes were covered: stroke, falls and confusion assessment. Students filled in an anonymous intradepartmental questionnaire at the end of the block, grading the general organization and the individual types of teaching sessions, on a scale of 1-5. The students also filled in a formal feedback form for the university, which does not form a part of this assessment.

Results
88 feedback forms (67%) were received at the end of the academic year. The overall satisfaction scores were

- General organization: 4.0 / 5
- Bed side teaching: 4.2 / 5
- Seminars: 3.9 / 5
- Small group teaching: 4.2 / 5
- 86% (≥4) highly satisfied with the design of teaching programme
- 80% (≥4) highly satisfied with the role of the tutors
- Very low satisfaction scores (≤2) seen only in 2% each for generic planning and seminars; 1% each for small group and bed-side teaching.

Conclusion
A dedicated and sufficiently long period of attachment to geriatric medicine, with a structured and dedicated teaching schedule offered by experts in the specialty is met with high satisfaction rates from the medical students. It also shows that an effective and satisfactory teaching schedule could be provided amidst busy clinical environment.
Awareness of radiation doses for common diagnostic radiological procedures amongst fifth-year medical students

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Introduction
There has been a steady increase in diagnostic imaging studies, particularly computed tomography (CT), in all developed countries. Statistics from the UK indicate a 12-fold increase in CT usage over the past two decades\(^1\). It is generally acknowledged that radiation from these tests involves some risk of cancer\(^2\). Many studies have raised concerns about the limited awareness of these risks among medical students and referring doctors\(^3,4\).

Methods
Between 2008-2009, ninety fifth year medical students were given an 8-item multiple choice questionnaire prior to their radiology tutorials; the questions were designed to specifically test their actual knowledge of radiation doses. The aim of this study was to assess the students’ awareness of relative radiation exposures associated with common diagnostic imaging procedures including abdominal radiographs, intravenous urograms, ventilation/perfusion scans and CT scans (chest, abdomen, head, urinary tract).

Results
Only 31.5% (227/720) of the total questions were correctly answered. 44.4% (320/720) underestimated the radiation dose of all tests listed above. Detailed analysis of CT-specific questions also shows significant underestimate of radiation doses (abdomen 93.3%, chest 73.3%, urinary tract 41.1%, head 10%). Only 22.7% of CT-specific questions were correctly answered. The most correctly answered question was the radiation dose equivalent of an abdominal radiograph (79%). None of the students were 100% correct on all eight questions.

Conclusion
This study shows a lack awareness of ionising radiation from diagnostic imaging among senior medical students. As future medical professionals, it is imperative that they are familiar with radiation doses associated with commonly requested radiological investigations. These shortcomings in medical students’ knowledge regarding important aspects of radiation protection should be considered when developing the undergraduate medical curriculum and highlight the need for improved education.

References
Impact of a well-designed work experience programme for budding medical students

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Introduction
Gaining work experience is an essential part of deciding to become a doctor and it has the potential for motivating students and enhancing their self-esteem\(^1\). All medical schools expect applicants to have undertaken some health or social care work experience, thus making it one of the most sought after attachment. Our aim was to evaluate the learning experience of students who attended a clinical work placement at a busy district general hospital.

Methods
Between 2009 and 2010, sixty AS-level students (two batches) completed a one week attachment at our hospital. During that period they attended lectures, visited various departments and participated in skills-laboratory sessions. While shadowing junior doctors and nurses, they witnessed their daily work routines and gained insight into the nature of these jobs. Sessions with other healthcare professionals were also organised. Students’ feedback was collected through post-attachment questionnaires.

Results
The majority of students (97%) evaluated their learning experience as being “enjoyable” and believed this attachment had strengthened their motivation to apply for a medical degree course. 97% had a good understanding of how a hospital generally functions. The main reasons for studying medicine were listed as follows – helping people (26.7%), personal/job satisfaction (21.7%), scientific interest (23.3%) and challenging career (23.3%). The second batch of students (n=25) were asked more detailed questions. 56% (n=14) had done a previous clinical work experience placement. All students understood the roles and responsibilities of junior doctors and the multidisciplinary approach in patient care. Having completed the attachment, they all said they would recommend it to their peers.

Conclusion
Despite the changing financial remunerations associated with medical practice, students’ passion for this subject is undiminished. Interestingly, none of our respondents indicated their future earning potential influenced their decision to study medicine. An estimated 8% to 10% of medical students drop out of university\(^2\). Hence, the importance for AS-level students to attend such clinical placements to ensure that they fully comprehend the work environment and demands encountered in a medical career.

References
An educational Multimedia teaching tool on “The Child presenting with a “turned eye”

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Background
Squint is a common condition affecting about 5% of five year olds (1). Early detection and treatment is important to prevent permanent vision loss. The International Council of Ophthalmology recommends that medical students are familiar with this condition and are competent in assessing a child for squint (2). Increasing demand on undergraduate medical education has resulted in reduced exposure to certain specialities, including ophthalmology (3). The use of computer based learning has gained increasing use in medical education and has shown good results in delivering core teaching to students (4).

Aim
To create a teaching video on which explains the principles of squint, how to assess a child for a squint and treatment options available.

Target Audience
This video is aimed at medical students, foundation year doctors, general practitioners, paediatricians and allied healthcare professionals.

Objectives
At the end of the module, users of this teaching tool should be able to
1) Define the term Squint  
2) Use appropriate terminology to describe squint 
3) Describe binocular vision and understand how a squint may lead to Amblyopia 
4) Describe how to test for a squint in a young child including 
5) Discuss the treatment options available for squint

Methods
Video footage and still images demonstrating various aspects of squints were obtained from patients attending the outpatient clinic. Informed consent was sought prior to filming. Illustrations and graphics were used to demonstrate important concepts.

Outcome
A teaching tool that will equip medical students and non-ophthalmology specialist with the knowledge and understanding of squint.

References
A theoretical underpinning for measurement of professional culture in healthcare training institutions

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Background and Purpose
The importance of teaching professionalism explicitly in health professional education has been repeatedly emphasised. As a result, it is now recognised as a well-defined educational outcome by several healthcare training programmes and formally delivered in many pedagogical programmes using a range of instructional methods. The extent to which professionalism can also be learned informally, however, should not be underestimated as: social environment has a large influence on individuals’ learning; hidden curriculum plays an important role in fostering professionalism; and professional culture affects student motivation for learning and individuals’ professionalism. We attempted to identify a theoretical basis for understanding and measuring professional culture prevailing in institutions training healthcare professions.

Methodology
A literature review was conducted for the following purposes: to define the term ‘professional culture’ in relation to healthcare professions education and to identify its characteristics; to evaluate educational and sociological theories as the theoretical basis for understanding professional culture; and to propose a methodology to measure professional culture.

Results
Professional culture of an institution is the cumulative behaviours of its inhabitants which result from their attitudes, values, norms and social pressures. The Theory of Reasoned Action and the Theory of Planned Behaviour seemed to be relevant to describe ‘professional cultures’. However, Theory of Planned Behaviour (TPB), which establishes the relationship between individuals’ attitudes, intentions, social norms, and capacity to operationalise desired behaviours, was found to be the more appropriate of the two. Researchers have used both qualitative and quantitative methods in studying health-related behaviours based on TPB. They have used qualitative approaches (e.g. direct observation) to establish the relationship between the ‘culture’ and its potential outcomes (e.g. medical errors occur when there is an abusive culture in ward setting), and quantitative approaches (e.g. survey) to describe a particular culture (e.g. abuse of juniors).

Discussion and conclusions
According to social learning theory and research on the hidden curriculum, not only what is delivered formally in educational programmes but also what is transmitted from the professional culture of the institution play vital roles in fostering professionalism among healthcare students. The Theory of Planned Behavio can be used as a theoretical basis for understanding, explaining and measuring the professional culture of institutions training healthcare professionals. Based on the TPB, measurement instruments can be developed either to describe prevailing professional cultures in targeted institutions or to predict possible outcomes of such cultures.

References
Teaching and Learning
Role Play-Engaging the participants

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Background
Role play can be a useful method to help tutors develop practical skills such as giving feedback. One of the challenges, when using this form of teaching, is to prevent the participants from feeling threatened and disengaging with the learning opportunity. Evidence suggests that when role play is used well the outcomes are positive but it is often poorly done.

Aims of the Poster
To describe a method of using a role play which provides an environment that encourages learners to take part. The poster also aims to present an evaluation of this method

What was done?
A small group teaching method which used role play was developed. The participants are shown a DVD clip of a doctor consulting with a patient or a colleague. They were asked to develop phrases which would provide feedback to the doctor. The doctor is then role played using an actor. The feedback phrases are collated by the facilitator and discussed by the group. The opening feedback statements that are to be given to the actor are chosen by the group. The facilitator starts the role play process by delivering the feedback to the actor. Once the initial feedback comments have been delivered the facilitator asks the group for further guidance. The participants are then encouraged to take over the role playing process.

Method for Evaluation
The participant evaluations from a similar learning session in which the participants were asked to role play giving feedback and the new session were compared. Both evaluations were questionnaire based and requested to be handed in anonymously at the end of the session. The facilitators and actor were also asked to give their evaluations of the learning session.

Results of the Evaluation
A significant number of participants from the control session had indicated that they did not like the use of role play and in fact had not engaged in role play. Some of the facilitators had found that the participants rearranged the session to take out role play. Each time the new session has been run the participants have reported the role play as an enhancement to the session. The facilitators found learners fully engaged with the process in the new session.

Conclusion
Using a facilitator to start the role play process with an actor improves learner engagement and seems to reduce the threat of role play.
The Constipation Game

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This poster outlines the functionality of an e-Learning application aimed at undergraduate medical students.

A 68 year old man with severe COPD is admitted with an exacerbation. He is breathless at rest and not able to mobilise. He has a PMHx of steroid induced osteoporosis with associated crush fractures of two thoracic vertebrae. HIS bowels last moved 2 days ago. The student is asked to choose a drug, or variety of drug combinations, to administer on day one and upon each successive day thereafter.

The e-Learning application presents this information in the style of a computer game including a sliding scoring system which reflects how well the patient is progressing in terms of bowel movements.

This Adobe FLASH application was constructed using ActionScript v3.0.
Transition to university: the role played by emotion

W J McMillan

W McMillan, Education Advisor: Faculty of Dentistry, University of the Western Cape, South Africa

Background and purpose
The transition from school to university\(^1\) and the shift in academic challenge\(^2\) is experienced by many new university students as challenging. Non-traditional students are particularly vulnerable in this transition\(^3\,\(^4\)\). Theoretical frameworks have been offered to understand students’ experience of transition, including ‘resistance and persistence’\(^5\) and ‘habitus’\(^6\). Suggestions have been made to support retention and throughput by improving institutional culture,\(^7\) through facilitating teaching, curriculum and teacher development,\(^8\) and by supporting student learning.\(^9\) Most recently, theoretical insights from accounts of emotion and affect in transition to university\(^3\) and student engagement studies\(^10\) suggest the significance of an emotional dimension to learning, transition, throughput and retention.\(^11\) Understanding how students experience this transition allows institutions to put appropriate support mechanisms in place. Understanding the role of affect in higher education success has the potential to inform student support mechanisms that go beyond traditional interventions of academic development and curriculum innovation.

Methodology
A qualitative approach was used to elicit the insider accounts\(^12\) required for the study. From the first year dentistry students of 2010 at a single Faculty of Dentistry (n=80) in South Africa, one class of students (n=20) was selected for inclusion in the study. Fifteen students (75%) consented to participate. Three friendship- group focus group interviews (n=7; n=4; n=4) probed students’ experiences of transition to university. A semi-structured interview protocol explored “coming to university”, “being a student”, and “being a dentist”. Interviews were audio-recorded and transcribed. Issues identified in the literature as significant to transition were used to analyse the interview data. Descriptive tags were assigned for these. This process allowed for easy retrieval and collation of data associated with a specific descriptive tag.

Results
Twenty six descriptive tags were identified from the data. These were clustered into five themes: “outside support and constraints”, “influences”, “career choice”, “academic challenges”, and “agency and identity”. Further analysis indicated that sixteen of the twenty-six tags, and tags from all five themes, were associated with the use of emotive words.

Discussion and conclusions
This initial analysis indicates that, for these students, there was a powerful emotional component to their transition to university. Students associated both the challenges that they experienced and any available support structures through the lens of the affect. Further, the clustering of descriptive tags clustered under the theme, “influences”, indicated that new students relied heavily on the emotional support of parents and friends in their transition period. Findings suggest that mechanisms to support student transition need to engage with the interface between academic support and development and the social and emotional components of learning.

References
The JASME Teaching Toolkit for Medical Students: Perspectives on our student run workshops and future directions

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JASME (Junior Association for the Study of Medical Education) wholeheartedly believe that students should begin to gain teaching skills at undergraduate level, and developed a teaching course designed for medical students. The course has been run in three different permutations, and several more are currently being organised. By comparing the courses we sought to determine which components were key to the success of a student-run teaching course.

Each course aimed to enhance students’ teaching skills, allow them to practise the skills, receive extensive feedback, and be inspired to teach in the future. They began with background teaching theory, followed by microteaching sessions, where students taught a skill to a small group of peers. They then received feedback from their peers and facilitator, with the opportunity to reteach in light of the feedback. The pilot course ran in London in 2009, with two further courses in Cambridge and Leicester during 2010.

Whilst the three courses had similar aims and core themes, there were also key differences between them, namely, the course length, facilitator experience, amount of background theory, and types of skills taught. London was a full-day teaching course with a morning of theory and afternoon of microteaching. Cambridge was a two hour workshop, and Leicester a four hour component of another course.

Opinion from the London pilot course highlighted that the chance to practise teaching and gain feedback were considered to be the most important components, and these have been predominant features of the shorter courses. In our experience this should be supported by relevant and well contextualised teaching theory. London and Cambridge used expert facilitators with a background in teaching and medical education; Leicester used senior medical students. The depth and weight of feedback was perceived to be better when an expert-facilitator was present. However, much of the feedback came from peers and the delegates found the student perspective very valuable. Co-facilitation will be tried in future courses.

The London course took nearly a year to develop, but subsequent courses are becoming easier to organise. Formats are increasingly being shaped by extensive evaluation from students. JASME are working with ASME to develop a network of students at each medical school to help future dissemination of the course, and other medical education events. It is possible for keen students to organise a teaching course, providing they receive the appropriate support, plan well in advance, and persevere!
How can the consistency of the feedback in the clinical scenario be improved when delivering the acute care day programme?

C Gilhooly, P Evans

C Gilhooly, Consultant in Intensive Care, Hon Senior Lecturer & Student in Masters in Health-professions Education programme, University of Glasgow, Glasgow Royal Infirmary, 84 Castle Street, Glasgow, G4 0SF

Background and Purpose

The Acute Care Day programme (ACDP) provides key clinical, practical and communication skills to final year medical students (MB ChB 4/5) from the University of Glasgow. Included in this programme are a series of clinical scenarios where an actor simulates a patient with an acute illness. Appropriate clinical equipment is provided to simulate an acute care setting. Two experienced medical tutors supervise a small group of students managing the patient. The aim of this case study is to identify the methods currently used to debrief students during the acute clinical scenario in the ACDP, to investigate the opinions of the tutors on the most effective methods and triangulate this with that of the students.

Methodology

A hypothesis generating retrospective cross sectional pilot case study using electronic and paper-based surveys to obtain quantitative and qualitative data on tutors and students of the ACDP. Tutors were contacted by email and asked to complete an on line electronic survey. The questionnaire identified which feedback techniques they used, training previously received, and elicited opinions on further training they might find useful. A written questionnaire was also circulated to 5th year Medical Students who had completed the Acute Care Day programme, during the last session as part of their feedback. The questionnaire identified and evaluated different feedback techniques. Statistical Analysis examined differences between the groups, using Chi squared or Fisher's exact test as appropriate. Free text from the questionnaires was analysed using NVIVO coding and qualitative data analysis techniques. Common themes were identified and explored on debriefing techniques with potential to work in the ACDP scenario.

Results

The response rates for the questionnaires were 87% (n=239) from students and 56% (n=88) from tutors. Triangulation of results identified differences in perception between the tutors and the students in frequency of use of debriefing methods. Most students thought that debriefing after uninterrupted run-through of the whole scenario was best, followed by peer feedback and reflective discussion. 39% of tutors had received no formal training in debriefing. 88% of tutors were interested in participating in a faculty development programme. The opinions of students and tutors on effective feedback were explored and analysed. These included use of structured feedback techniques and identification of barriers to effective feedback.

Discussion and Conclusions

There is a wide variety in the methods and delivery of debriefing in the ACD clinical scenario. Tutors in the ACD have identified an unmet training need and have raised several issues that can be used in developing a training programme to improve the consistency of the feedback in the Acute Care Day Programme.
Is peer-assisted learning the best introduction to clinical skills?

R Varughese, S Montgomery-Taylor, A Mathew

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Background and purpose
The first 3 weeks of clinical training at Oxford University Medical School are spent doing a peer-assisted learning course ‘MedEd’. First year clinical students are taught in small groups by final year students to carry out history taking, clinical examination and practical procedural skills. A combination of bedside teaching and tutorials are used in order to prepare students for subsequent short placements on wards; where they are assessed by doctors and nurses.

Methodology
All 133 first year clinical students who took part in MedEd were asked to participate in a questionnaire survey, to ascertain whether they found the teaching prepared them well for being on the wards and if the feedback they received on their skills was positive. Responses were presented on a 6-point Likert scale and free text comments were invited.

Results
76% of the year group responded (102/133). 70% of students rated their confidence on the wards highly (5/6; 6/6) after MedEd teaching as compared to 87% rating their confidence levels poorly (1/6;2/6) before MedEd teaching. 90% students rated the feedback from doctors on their clinical skills as positive (4/6;5/6;6/6). Importantly, 98% of students determined that students were better teachers than doctors for preliminary clinical teaching. Comments from students established that the course was pitched at the right level for their stage in training both in terms of information imparted and the necessary skills required for future assessment. However, they also highlighted the necessity for regular practice of the skills, after establishing familiarity with them. Interruption with a lecture course, made resuming ward skills a daunting experience. A suggestion would be to organise a brief, intensive refresher course to remedy this.

Conclusions
Overall, this survey highlights the value of utilising the first hand experience and knowledge from practised students in order to develop the skills of clinically inexperienced peers. Peer teaching is vital in developing the confidence of first-year clinical students on the wards. The use of students as teachers facilitates the imparting of relevant core knowledge to their juniors, while providing an environment conducive to questioning and reassurance. Moreover this is a mutually beneficial system as it also provides revision opportunities for final year students.

Take-home message
Peer-assisted learning is a successful introduction to clinical examination skills, after which continuity is essential in maintaining confident clinical practice.
Implementing a bespoke VLE using Moodle

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The Medi-CAL Unit started uploading lectures onto the web in 1996. Since then, the VLE used by Medical Students at the University of Aberdeen has gone through a variety of redesigns and a regular overhaul of the services that it provides. The advent of social networking and greater availability of the internet means that students now expect more from their online experience.

This paper explores the experiences of developing a VLE and outlines plans for future developments to support an ever growing variety of end-user devices, including laptops, tablet computers and smart phones.
An Assessment of student feedback to find the value of Bedside Teaching during the Child Health Block

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**Aims and Objectives**

1) To assess the usefulness of Bedside Teaching in the Child Health Block
2) To compare Bedside Teaching to E-learning
3) To obtain suggestions for improvement of the teaching programme

**Introduction**

It is well known that bedside teaching is an effective way to educate medical students, associated with very high levels of learner satisfaction. However the quantity of bedside teaching in medical courses has been declining and protected teaching time is constantly under threat from other commitments of the teacher. Furthermore there can be discordance between learner and teacher expectations in terms of what teaching should be delivered in clinical settings. In Leicester all students have protected bedside teaching during the child health block receiving roughly 4 sessions per week over the 7 week block. The study was carried out to assess the usefulness of this teaching programme. Usefulness, satisfaction and quantity of bedside teaching were assessed as well as whether students were observed taking histories, examining patients, and if they received immediate feedback on their performance. A direct comparison was made between bedside teaching and E-learning to ascertain what students found the best learning method to master key competencies. The students were invited to make suggestions on what they found particularly valuable and what they thought could be improved.

**Method**

A questionnaire about bedside teaching in the Child Health block was completed by final year medical students, n = 58. The questionnaire provided both quantitative and qualitative data. The data was analysed and the qualitative comments was grouped into themes.

**Results**

1) The students overwhelmingly found the bedside teaching programme useful and enjoyable.
2) The amount of bedside teaching in the Child Health block was appropriate.
3) 94.8 % of students were observed taking histories, 91.4% of students were observed examining patients and 96.6% of students received direct feedback about their performance. Again, overwhelmingly the students found this useful.
4) 77.6% of students preferred bedside teaching to other learning methods.
5) Key suggestions for improvement were: better planning between teachers to avoid repetition of cases, smaller group sizes and teaching from junior doctors if the consultant had to cancel.

**Conclusions and Recommendations**

1) Bedside teaching in the child health block is extremely valuable. It should be continued and protected.
2) Students prefer bedside teaching to E-learning
3) Student feedback should be used to improve the teaching programme.

**References**

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Do students learn what we want them to learn?

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Background and purpose
Fibromyalgia is a chronic pain syndrome associated with significant morbidity. Third year medical students based at University Hospital of North Durham received a teaching session on fibromyalgia as part of their “chronic illness, disability and rehabilitation” module. The focus of the session was on patient experience, patient education, addressing ideas concerns and expectations (ICE) and considering the biopsychosocial impact of the condition. Medical aspects of fibromyalgia were also covered. The session was concluded with two take home points, Fibromyalgia is a real illness and distressing for patients. Remember ICE and the biopsychosocial model

Methods
At the end of the teaching sessions, students were asked to fill in an evaluation questionnaire. 45 students were given a questionnaire with a 100% response rate. As part of the questionnaire, free text boxes were provided to list two things they had learnt from the session. Simple framework analysis was used to categorise these learning points. Learning points were also subdivided into medical model of disease or holistic.

Results
The most popular learning point was treatment (recorded by 62%, 28 students) followed by symptoms (40%, 18 students) and pressure points (38%, 17 students). “Real illness” was only recorded by 18% (eight students), ICE by 9% (four students) and biopsychosocial model by 4% (two students). 82% of responses related to the medical model of disease whereas only 18% related to a more holistic view.

Discussion and conclusions
Despite the focus of the session and the clearly expressed take home messages, the majority of students focused on the medical aspects of the teaching session which was surprising. Potential reasons for this are listed below:

1. Prior understanding of the patient experience from studying other chronic illnesses
2. May have felt the holistic view did not constitute “knowledge” in the same way as medical information.
3. Encouraged by the fact that there was diagnostic criteria and treatment for this distressing condition which may have taken priority over the take home messages.

The evaluation exercise has provided an insight into the fact that students are not necessarily taking home the intended messages from the session.

Future research should be designed to explore reasons why students recorded mostly medical learning points. This might provide insight into why there was a difference between intended and reported learning.
Combining expert and peer led teaching: the future of undergraduate medical education?

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Background
Tomorrow’s doctors (1993) prompted changes to the curriculum in many UK medical schools, with a move towards self-directed learning (1). However, these changes have not addressed all of the gaps within the curricula and dermatology remains an often overlooked specialty. The new ethos of self-directed learning has resulted in a number of student led teaching schemes in order to address these gaps.

Methods
DermSoc Manchester was established to promote awareness and education of skin disease using both expert and peer-led teaching. It has organised three full day symposia, providing an introductory course in dermatology to 180 students. DermDays were advertised to students in their clinical years via email, the intranet and a social networking site. Feedback forms were given to all delegates and they were asked to rate three aspects (presenting style, usefulness and overall mark) of each component of the symposium on a 1-5 Likert scale, 1 being poor and 5 being excellent. A free text comment box was also provided.

Results
The feedback generated from the 134 completed forms was analysed by SPSS 18.0 and proved overwhelmingly positive. Across all three symposia a score of above 4 was awarded to every aspect of the lecture series and the interactive sessions as well as the careers question and answer session. Scores for the lectures run by students and by clinicians received similar marks for presenting style, usefulness and as an overall mark. Patient sessions were awarded the highest overall mark with an average score of 4.79 out of 5.

Conclusions
The DermDay events have demonstrated the effectiveness of combined near-peer and expert teaching. Delegates were as happy with peer led sessions as with expert led sessions, although successful peer-led teaching would be difficult without support from experts; highlighting the importance of a clinical cocoon. There is little research in the educational literature demonstrating the benefits of this approach and our findings suggest that further research is required to explore the potential benefits of such schemes. It is well established that peer learning is beneficial for both teachers and learners as it provides a safe environment in which to learn (2). Patient interaction affords medical students the opportunity to increase one’s knowledge base and improve crucial communication skills (3). The formulaic days run by DermSoc Manchester provide a template for other like minded students wishing to deliver an introductory course in dermatology, or any other medical specialty.

References
How a peer-led ‘teaching how to teach’ course can increase medical student knowledge, skills and confidence

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Introduction
GMC guidelines state that undergraduate medical students must gain experience of teaching during the clinical years\(^1\). Many students at Leicester Medical School have demonstrated an interest in this area, and as a result Leicester Medics Association of Teaching (LMAT) worked in collaboration with the Junior Association for the Study of Medical Education (JASME) to run a peer-led course. This was designed to teach, assess and reinforce the core knowledge, skills and attitudes needed to teach others. The one-day programme was based on an established JASME education package and combined basic theories of teaching with practical workshops. Students gained experience whilst receiving extensive feedback from peer tutors and learners throughout the day. Peer Assisted Learning (PAL) provides a range of potential benefits for both student groups\(^2\) and was therefore considered an ideal approach for the course.

Method
Students rated their pre- and post-day understanding of the core components of the course by completing a questionnaire. In addition, they reported their perceived confidence in relation to these components and overall enjoyment of the day. Data collection and analysis were based on an ordinal step-wise approach to a series of Likert scale responses, directly identifying pre- and post-day attitudinal changes for each individual student as a result of the teaching received.

Findings
The reported understanding of teaching techniques increased significantly during the course, with no deficits found. In addition, the majority of students showed an increase in perceived confidence in their ability to give a lecture, teach small groups and facilitate a clinical skills session – further replicated in the workshops. Perceived confidence in utilising small group teaching methods demonstrated the biggest attitudinal change. When asked, 83% of students indicated that the course would positively change their future practice, with many highlighting that it fuelled their motivation and enthusiasm for medical education.

Discussion & Conclusions
Our findings suggest that regardless of initial understanding, a peer-led ‘teaching how to teach’ course can increase knowledge, skills and confidence in teaching others. Importantly it can provide a safe environment in which to learn and practice skills whilst receiving individualised, specific feedback. The literature confirms this, suggesting PAL can offer a unique and valuable exposure to teaching and learning for clinical practice - enhancing personal and professional development\(^2\). It is a powerful tool that is mutually beneficial to both peer tutors and learners. With adequate support it has a bright and promising future.

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Medical Professionalism education and students’ perceptions

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Background
Medical professionalism is an essential concept in current medical education, although it is not easily defined. It underpins the trust society has in doctors by comprising a set of behaviours, principles and responsibilities, which must be described and explicitly taught to medical students. The assumption that professional values and attitudes will be acquired unconsciously can no longer be made. The Bute Medical School (BMS) curriculum (a 3-year pre-clinical course) encompasses several professionalism-promoting mechanisms, including role modelling, the Yellow Card Scheme, ePortfolio, reflective practice and the Bute Medical Agreement.

Methods
A questionnaire investigating medical students’ views on professionalism and on the educational mechanisms promoting it was devised. All 430 students at the BMS were invited to participate, resulting in 334 responses (77.7% participation rate). Results were interpreted using Microsoft Excel and SPSS statistical software v. 17.0.

Results
The data shows that participants value medical professionalism and consider it a priority at their undergraduate level. According to students’ responses, the most effective mechanism in promoting professionalism is role modelling, whilst the Yellow Card Scheme and ePortfolio reflection are deemed to be the least effective. However, if ePortfolio and professionalism were summatively assessed, students would consider them more important than they currently do.

Conclusions
Students consider what is evaluated to be important; hence professionalism should not only be taught but also evaluated. Formal assessment of professional attitudes and behaviours should be developed within medical school curricula. These must not simply highlight unprofessional behaviour students must avoid; more essentially they ought to promote excellence.
Defining feedback from the medical student’s perspective: Exploring students’ experiences at three UK medical schools

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Background and purpose
In medical education, feedback has been repeatedly shown to be an influential driver of learning.¹, ² Students perceptions, however, are that they do not receive sufficient feedback.³ A recent review⁴ of 132 articles on feedback postulated a consensus definition for feedback. However, all definitions were written by expert feedback givers. To our knowledge, there have been no studies to date that have defined feedback from the medical students’ perspective. Studies at both undergraduate and postgraduate levels have shown that there are large disparities between what the tutor feels they have given and what the student feels they have received.⁵, ⁶ The current study seeks to address this gap in the research literature by exploring medical students’ experiences of feedback at three schools in the UK.

Methods
We are currently conducting focus groups at three medical schools in Scotland, asking students about their experiences of feedback to date. The focus groups will include students across all five years of the medical curriculum. The key topics that are being discussed include students’ understandings and definitions of feedback, their experience of feedback to date, where they feel feedback has been given well and badly, and what they do with feedback. These focus groups are being audio-taped and a thematic framework analysis⁷ identifying how and what participants say will be performed by the researchers.

Results
The data collection for this study is ongoing. By the time of the conference, the preliminary thematic analysis will be complete. Although the themes themselves will be identified inductively from the data, it is likely that the presentation will include certain topics linked to the interview questions. For example: students’ understandings of feedback, their positive and negative experiences of feedback and how those experiences have impacted on their subsequent learning. This data will be used not only to redefine feedback but also to inform the second phase of the first author’s PhD study into feedback for medical students—a video ethnography study of feedback in two settings (simulated and medical workplace setting) in the UK.

Discussion
This study will bring an authentic viewpoint about feedback through students’ understandings and experiences of feedback at three diverse UK medical schools. In order to solve the much talked about ‘feedback problem’ in medical schools, we must first be able to define feedback from students’ perspectives. This presentation will discuss the implications of these results, thereby informing future educational practice and future studies on feedback for medical students.

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Delivery and Evaluation of blended learning courses in a large Medical School in the United Kingdom: A model for uniform delivery and equitable access

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Background and Purpose
Large medical schools are faced with challenges to achieve and maintain a degree of standardisation in the content and delivery of educational courses. Manchester Medical School has in excess of 450 medical students per year placed in four different clinical sectors across the Northwest of England. A wide geographical distribution and more than 20 hospital placements makes it difficult to deliver standardised, quality-assured teaching. Faced with this challenge we developed a blended learning environment using a combination of e-learning modules and small-group facilitated sessions to achieve uniform delivery and equity of access. Blended learning has been shown to be effective in promoting learner-centred higher education1. We hosted the e-learning packages on our Medical School e-learning environment to which both the students and tutors have access. The small groups consisted of 6-8 students and the students had 4 days to prepare for each topic in their own time before the small-group facilitated session. We managed to deliver four tutorials in this format for 450 medical students in a 16-week period. We present here the development, delivery and evaluation of the blended learning environment created at our medical school.

Methodology
Feedback was collected using Medlea (Manchester Medical Schools’ e-learning environment) from the tutors and the students on a voluntary basis. The data was exported to excel and qualitatively analysed using the thematic analysis technique by two investigators. The key themes are presented in this poster.

Results
All the teaching hospitals reported to us that the tutorials were delivered uniformly across the sectors with a very high attendance rate. We received 13 tutor feedback responses and 56 responses from students.
Two main themes emerged from both students and tutors.
• They found blended learning to be more effective than e-learning or a small group discussion alone.
• They identified that the small group discussions worked more effectively when all involved had prepared adequately beforehand.
Minor themes included the identification of this package as a tool to deliver a standardised learning experience. Students also identified enhanced flexibility of the e-learning tool to be of importance for future development.

Discussion and Conclusions
Blended learning has the advantages of flexibility, convenience and improved participation2. We conclude that this blended environment is an effective tool in the delivery of content to a large number of students, maintaining standardisation and allowing uniform access, all of which enhances the learning.

References
Faculty Development: Specialty Trainees as Ambassadors and Providers of Medical Education

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Background
Faculty development has traditionally centred on consultants, yet there are clear arguments for supporting doctors as medical educators early in training. Fostering a deeper understanding and appreciation of medical education could strengthen trainer/learner relationships, develop senior trainees who teach their junior colleagues, and prepare trainees as future educational and clinical supervisors.

The Study
The East of England Multi-Professional Deanery piloted an innovative scheme to sponsor two cross-specialty cohorts of 20 trainees to study a Postgraduate certificate in Medical Education at the University of Bedfordshire. Participants were selected to be ambassadors for medical education and provide regional and local teacher training post-qualification.

Key elements of the learner-centred course included:
• Participation in an online educational ‘community of practice’;
• Development of an individual teaching philosophy and academic and research literacy;
• Interrogation of educational theory in the context of different specialties;
• Experimentation with e-learning to develop a group ‘Wiki’ microsite;
• Reflective learning, using a teaching portfolio and reflective narrative.
• Formative feedback, including peer and tutor observations, to cultivate skills and capabilities.

A range of data has been collected to evaluate this model and identify the potential benefits of a Deanery-funded scheme. Participants were surveyed midway through the course and 6 months after completion.

Results
Nineteen trainees from the first cohort attained the PG Cert qualification, with seven trainees choosing to continue their studies to Masters level qualification. All reported high levels of satisfaction and engagement with the course.

Thematic analysis of feedback identified significant benefits of the programme, including:
1. the value of shared peer learning and a ‘community’ approach;
2. significant personal and professional development of trainees as educators;
3. self-reported improvement in the quality of teaching activities with junior colleagues;
4. enthusiasm for cascading learning to other colleagues;

Data to illustrate these points will be provided. Case studies of faculty development training events organised by the participants will illustrate horizontal and vertical sharing of learning.

Discussion & conclusions
This Deanery-sponsored scheme facilitated the professional development of committed trainees as medical educators. The postgraduate course significantly enhanced their own teaching and learning and supported them as medical education ‘champions’ able to cascade learning and development to their colleagues.
Reference
Trauma and Emergencies in Pregnancy (TrEP): developing a course for undergraduate medical students at the University of Leicester

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Introduction
The management of trauma and emergencies in pregnancy was an aspect of acute care that senior medical students at the University of Leicester had demonstrated an increased interest in. As a result, the Trauma and Acute Care Society ran a student-led course using this as a framework to teach, assess and reinforce core knowledge, skills and attitudes in this specialised area. These were based on Immediate Life Support principles. Trauma and Emergencies in Pregnancy (TrEP) was developed as a one day course combining a series of key lectures with practical skills stations, an OSCE and moulage. Senior clinicians with a specialist interest in obstetrics and/or anaesthetics from the University Hospitals of Leicester (UHL) provided invaluable teaching expertise in a high tutor to learner ratio.

Method
Using a Likert scale questionnaire, students were asked to report their perceived satisfaction with the component parts of TrEP. In addition they commented on their overall enjoyment of the day and identified areas for improvement. Data were collected and evaluated to further develop and refine the structure and content of the course, in order to make future courses more responsive to the learning needs of students in clinical practice.1

Findings
When asked, 100% of the students who attended the day said they would recommend it to others, showing an extremely high degree of satisfaction overall. In addition, many students reported a perceived improvement in the knowledge, skills or attitudes needed to manage trauma and emergencies in pregnancy. When the lectures were reviewed, ‘managing shock’ and ‘medical emergencies’ evaluated most well - with 82% of students giving these the highest satisfaction rating. Lectures that evaluated less well did not fully meet student learning needs, and suggestions were made for improvement. In the clinical skills components, 95% of students gave the practical skills stations the highest satisfaction rating – with the OSCE and moulage also demonstrating very high levels. Clinical relevance was acknowledged by many students.

Discussion & Conclusions
Findings suggest that the course evaluated very well overall, demonstrating a perceived improvement in knowledge, skills and attitudes amongst many students. It facilitated a valuable exposure to aspects of care that could potentially be experienced in clinical practice, whilst providing a safe environment to learn and practice the necessary skills.2 Responsive changes will now be made, with the aim of including TrEP within the undergraduate curriculum at the University of Leicester in the future.

References
Peer-Assisted Learning: Does Comfort Build Confidence?

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Introduction
The Peer-Assisted Learning (PAL) scheme is facilitated by year four medical students at
Salford Royal Hospital and delivers clinical teaching to year three peers. We facilitated
PAL sessions covering clinical examination of the head and neck in preparation for
OSCEs.

Aims
This study aims to determine whether a teaching session delivered via PAL increases
student’s confidence at attempting a relevant OSCE station. Additionally, we aim to
determine the reasons behind any change in confidence.

Methods
We surveyed year three students attending small group PAL sessions (n=51). The
students rated their confidence at tackling an OSCE station before and after PAL, using a
scale from 1 (no confidence) to 10 (most confident). Additionally we asked students to give
feedback using free text answers about the PAL session. We used thematic analysis of the
feedback forms to study students’ perceptions of PAL.

Results
Students’ confidence at tackling a head and neck OSCE station demonstrated a significant
improvement (p<0.001) after the PAL session. The mean confidence before the session
was 5.1, increasing to 8.0 after. All students reported increased confidence after the
session. Thematic analysis of the students’ free text answers revealed that the most
common perception of PAL was of a comfortable, relaxed environment (47.4%). The
second most common perception related to students’ appreciation of the relevance of the
session content to OSCE assessments (44.7%).

Discussion
The most common theme students’ reported was feelings of comfort related to PAL
sessions. We believe these feelings of comfort foster a more productive learning
environment, therefore leading to significantly increased levels of confidence.
To explain this we refer to Topping1, who theorised that peer teaching leads to increased
disclosure of areas of weakness in knowledge by students. This allows peer-tutors to
address these areas and teach more effectively, leading to the increased confidence
experienced by students.

Conclusions
We propose that enhanced disclosure is a product of a highly congruent relationship
between peer-tutor and student. Congruent social roles occupied by student and peer-tutor
may foster a more effective learning environment2. The lack of hierarchy between student
and peer-tutor leads students to experience feelings of comfort, meaning they are more
likely to expose their weaknesses, which can then be addressed, resulting in their
improved confidence.

References
Factors influencing stethoscope cleanliness amongst clinical medical students at a Scottish University

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Background and purpose
Cleanliness within clinical environments is of great importance to patient safety, with an estimated 15-30% of all healthcare-acquired infections (HAIs) being completely preventable through simple improvements in hygiene. To date, training and awareness campaigns have focused on the role of good hand hygiene; however, despite evidence that stethoscopes can spread HAIs, little attention has been given to this common piece of medical equipment. Daily cleaning of stethoscopes can reduce the number with bacterial contamination from over 90% to less than 35%. Despite this, many medical students still fail to clean their stethoscopes regularly and teaching in this practical skill may be lacking. The aim of this study is to determine stethoscope hygiene habits amongst clinical medical students and correlate this with a number of factors likely to influence cleaning frequency.

Methodology
The study population consisted of medical students in their clinical years from a single Scottish medical school. An anonymous study questionnaire was completed by 308 students; students were asked how often they cleaned their stethoscope on average, whether they had received teaching in stethoscope hygiene, and which factors were preventing them from cleaning as often as they would like using Likert scale questions.

Results
There was no difference in cleaning frequency between males and females (p=0.982) or year of study (p=0.472), and students cleaned their stethoscope on average once per month. Only 9 students (2.9%) had received teaching to show them how to properly clean their stethoscope, and 86.7% felt that this topic needed more awareness in the medical curriculum. Significant correlations were found between the frequency of stethoscope cleaning and whether a student felt confident in knowing how to clean (p<0.001), whether they witnessed others clean their stethoscope (p<0.001), whether they thought cleaning was important (p<0.001), and whether cleaning equipment was readily available (p=0.001). Cleaning frequency was not correlated with whether the student felt they had enough time (p=0.101).

Discussion and Conclusions
The vast majority of students had received no formal teaching in stethoscope hygiene. By increasing students’ confidence in performing this essential practical skill, it is likely that stethoscope hygiene will increase. This could be done through formal clinical skills sessions, awareness campaigns, and encouraging clinical tutors on wards to promote this skill. Additionally, more equipment should be made available for stethoscope cleaning. In turn, widespread adoption of these suggestions by medical schools both nationally and internationally may help reduce HAIs, increasing patient outcomes.

References
Introducing realism and contextualization in ambulatory care teaching enhances the student learning experience

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Background
Ambulatory care is a challenging area for teaching at a junior undergraduate level: understanding, planning and executing patient care is a daunting task for early undergraduates. Treating more patients in the health sector in the ambulatory setting makes teaching in this context both viable and current. Translating this concept, to introduce realism whilst maintaining consistency and reliability in teaching is the challenge. Realism and contextualization includes utilization of patient information prior to seeing the patient, setting up the ‘scene’ based on that information, getting the patient from the waiting area, conducting the interview process and planning future care based on the information procured. This pilot survey was aimed at exploring students’ insight in to patient care in the consultation necessary in the ambulatory care setting, and furthermore to assess their overall learning experience of contextualization.

Methodology
A structured change was introduced in the 2nd year undergraduate curriculum. The session was divided into ‘pre-interview phase’, ‘interview phase’ and ‘post interview phase’, lasting for ninety minutes.
All the three phases were based on the underpinning principles of
1) ‘Content’- What is the information?
2) ‘Process’- How is the information gathered?
3) ‘Perception’- What does the doctor think? What clinical reasoning goes on? What attitudes and biases do they have?

A real outpatient area was used, using simulated patients. In the pre-consultation phase, the students were asked to plan the consultation based on the principles of content, process and perception. This was contextualized with a letter of referral or similar. Students were observed as they collected the patient from the clinic waiting area. Students were expected to gather information, plan investigations and formulate an initial management plan. Using peer review in the post consultation phase the process was critically appraised and immediate feedback was given. A structured questionnaire was given to the students to help ascertain their understanding of patient care and management in the ambulatory care setting.

Results
Students reported that the three-part process helped them to understand the consultation. Introduction of realism by collecting the patients from the clinic waiting area helped them to learn and develop necessary social skills. Student’s situational awareness, their ease with patients, their planning prior to seeing patients and the importance of formulating a management plan were all noted as learning issues by students. Students also felt more involved in the teaching, as using peer review made the session more interactive.

Conclusion
The results show that using realism and contextualization helped the students acquire greater understanding of the consultation. The process helped the students to think and analyze broadly thus improving their understanding of ambulatory care. This structured and contextualized teaching improves the quality of the learning.

References

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ERG Research Stream Timetable
Presentations Timetable
Each presentation has been allocated 20 minutes presentation time and 10 minutes group discussion time. After all the papers have been presented and discussed individually, there will be a period of 30 minutes rapporteur-led discussion of all the presentations in the stream.

Friday 15th July 2011
Workplace Learning

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<td>9.30am - 11.30am</td>
<td>Virtual continuity in learning programme - 'on the job' learning for foundation doctors</td>
<td>Simon Tso &amp; Eleanor Wood</td>
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<tr>
<td>10am - 10.20am</td>
<td>Lack of junior doctors knowledge of iron deficiency, anaemia, and blood transfusion</td>
<td>Anna Coates</td>
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<tr>
<td>10.30am - 10.50am</td>
<td>Learning to listen: a patient led innovation to improve student's communication with patient feedback</td>
<td>Elizabeth Anderson</td>
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<td>11am - 11.30am</td>
<td>Rapporteur led discussion of all 3 presentations</td>
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ERG Research Stream Papers
Virtual Continuity in Learning Programme – ‘on-the-job’ learning for Foundation doctors

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Background and Purpose
We proposed the use of the Virtual Continuity in Learning Programme (VCLP) as a potential solution to the fragmentation of junior doctors’ workplace learning1. The VCLP consists of the Virtual consulting room2 and the electronic patient record enabling the patient journey to be followed. This allows doctors to appreciate the rational behind clinical decision making prior to completing their case-based discussion (CbD) workplace assessments. This abstract reports our findings.

Methodology
57/62 (92%) of Foundation doctors (Homerton University Hospital, UK) consented to participate in the study in September 2009. 53/57 (93%) of doctors completed an initial questionnaire. Semi-structured interviews were conducted in March 2010. 11 doctors were interviewed as three focus groups: VcR user group, VcR non-user group and a mixed group. Web-tracking software was used.

Results
Questionnaires: 66% of doctors rated ‘Following a patient’s progress after discharge from their care’ as a ‘Mostly useful’ or ‘Very useful’ learning method. 30% rated it as ‘Neither useful or not useful’. 4% rated it as ‘Mostly not useful’ or ‘Not useful at all’.

Tracking showed 32% (18/57) of doctors used the VcR over a 6 month period.

Interviews: Some doctors reported they do not follow-up any of their patient’s progress after being transferred away from their care. Some preferred follow-up methods that enable them to appreciate the clinical reasoning behind patient management steps. They tend to consolidate their workplace learning and prepare for CbDs at home. Doctors used the VcR in a range of situations, not solely as anticipated, e.g. for everyday learning, just-in-time learning, making patient management plans and preparing for CbDs. Some expressed difficulties in doing CbDs with one doctor commenting ‘I like the concrete aspect of the guidelines incorporated in the VcR that perhaps you don’t get so a clear picture of when you are discussing (a CbD)’. There is wide variability in terms of how CbDs are assessed.

Discussion and Conclusions
The findings reveal how Foundation doctors learn and their perception of using the VCLP to support their learning and completion of CbDs. The majority of VcR users found it particularly helpful for just-in-time learning. The study also highlighted 2 areas of concern: some doctors are not proactive in following-up patient journeys and some experienced difficulties with undertaking CbDs. The VCLP has the potential to help overcome the loss of continuity in workplace learning. It can also improve workplace assessments by providing a framework for CbD preparations.

References
Aims
Our aim was to assess the level of factual and applied knowledge amongst Foundation Year 1 (FY1), Foundation Year 2 (FY2), core trainees (CT) and speciality registrars (StR) with regard to the diagnosis and management of iron deficiency anaemia (IDA) and the use of allogeneic blood transfusion.

Methods
We designed a questionnaire based on the current British Society of Gastroenterology, the Scottish Intercollegiate Guidelines Network (SIGN) and the British Association of Haematology guidelines. This was circulated to medical and surgical trainees in the East Midlands North Deanery, we received 322 responses. 65 FY1 trainees were surveyed within 4 weeks of beginning their post. 59 FY1 trainees were surveyed 4 months later having received a short tutorial on anaemia and transfusion. 160 FY2/CT and 38 StR trainees were also surveyed. Outcome measures included overall knowledge scores, specific knowledge of diagnostic investigations and treatment strategies and responsibility for decision making.

Results
Although 60% of StRs had received guidelines prior to beginning their post only 25% of FY1s had received any relevant documentation. SpRs were considered the most likely to make the decision to give a blood transfusion or commence medical treatment for IDA. However, FY2/CT trainees achieved the highest overall knowledge score (P=0.002). 4 months clinical experience and topic specific teaching did not improve the knowledge scores of FY1 trainees (P=0.13). Less than 55% of trainees were able to correctly identify the haemoglobin level at which anaemia is defined and <18% correctly identified coeliac screening as an essential investigation in IDA. However >68% of trainees were able to correctly transfuse patients based on a presented clinical scenario.

Conclusions
Overall trainee knowledge of IDA and blood transfusion was limited and did not correlate with clinical experience. Anaemia affects patients across both medical and surgical specialities and this study suggests that improvement in core post graduate education is needed to ensure patient safety and appropriate
Learning to Listen: a patient led innovation to improve student’s communication with patient feedback

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**Background**
Medical education policy in the UK emphasises the need to work “in partnership” with patients1. When in practise doctors are required to deliver “person-centred care”, with a focus on the experience of the patient which includes; an awareness of the patients’s perspective; an ability to listen with empathy and an ability to adapt communication to the needs of a diverse population2,3,4. Poor communication between doctors, patients and within teams remains one of the most frequent reasons for complaints and fatalities5. In response communication skills training has advanced but more opportunities to learn with and from patients especially marginalised groups and to consider the realities of the emotional aspects are required6.

**Method**
Action research was used to develop a workshop for interprofessional student groups to enhance listening skills. Qualitative data from 109 students and 20 participating patients were collected using focus groups and one-to-one interviews over three pilot cycles. The results of each pilot informed the cyclical development of the project. Data were analysed using grounded theory and stakeholder perspectives were tri-angulated. In this way patients shaped the design and content of the workshop. A key component was patient feedback on their communication skills.

**Outcomes**
The research helped shape the right teaching environment, support needs for patients as teachers, teaching pace, and the feedback processes. Patients felt students had learnt from them and benefitted from the experience; “From the feedback they gave at the end, I feel that they picked up a lot of what I wanted them to take on board” (mother of disabled child); “I think it helps to get rid of some of my negative thoughts and experiences in a very effective way” (disabled adult). Students valued the high quality learning; “At medical school we are taught to take histories. The patient’s story is regimented to the doctor’s agenda…for the first time in a long time I sat and listened to the patient’s story in the way they wanted to tell it” (medical student). They valued the meaningful interactions with the patients on how to improve both uni and interprofessional communication. Students reflected on how to improve their communication for safe practice. The final workshop design resulted in a model which reflects the human side of healthcare delivery7. The workshops have become part of the medical students clinical rotations with over 60 disabled people involved. Research continues on developing patients’ skills in feedback and leadership (Mini project 2010/11).

**References**
5. Pincock, S. Poor communication lies at the heart of NHS complaints, says ombudsman. BMJ; 2004: 328.