Medical Education and Standards at a Time of Change

Programme and Abstracts

2-5 September 2001
Charité, Humboldt University
BERLIN, GERMANY
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</thead>
<tbody>
<tr>
<td>Saturday 1 September</td>
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<tr>
<td>Sunday 2 September</td>
<td>2.2</td>
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<tr>
<td>Monday 3 September</td>
<td>2.4</td>
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<tr>
<td>Tuesday 4 September</td>
<td>2.15</td>
</tr>
<tr>
<td>Wednesday 5 September</td>
<td>2.28</td>
</tr>
</tbody>
</table>

Section 3: Conference Social Programme, Tours and Accommodation

Section 4: Abstracts
Welcome from Students

We, the students of the Charité, Medical Faculty of the Humboldt-University in Berlin, look forward to welcoming you to the AMEE Conference. We want you to enjoy your stay in Berlin and will do all we can to help.

We invite you to join us for a free dinner on Monday night in our beautiful ‘lecture-hall ruin’. This is the old pathology lecture-hall that was partly destroyed during WW II, has been rebuilt and is now being used for social events. This is intended as an alternative to the River Cruise in the official social programme and we hope that it will be a good opportunity to get to know each other and to make new friends. Places are limited, and we need to know in advance who is interested in joining in (students only, please!).

We are also planning to organize a pub-crawl on Saturday night for all the people who arrive early. Please contact us if you’re interested in a guided tour of the Berlin nightlife.

We are trying hard to find inexpensive accommodation with local students or - if there are not enough places available - in youth hostels. At the moment we are searching for local students, who are able to accommodate you and offer you a breakfast during the conference for a small contribution of 50 DM (about 15£). However we cannot guarantee that we will be able to place everybody. Therefore, if you decide to attend the conference and want to be placed in private accommodation, please let us know as early as possible (email: below), so that we can add you to the accommodation list. Please tell us your name, sex, email, address, the day of arrival and departure and if you want to attend the dinner on Monday (free of charge!)!! Please send your e-mail to: student.amee@charite.de and note: “AMEE Accommodation application” in the reference.

We look forward to meeting you.

Local Organising Committee

Professor Joachim Dudenhausen  
Professor Ingrid Reisinger  
Professor Walter Burger  
Professor Dieter Scheffner

Professor Gerhard Gaedicke  
Professor Ulrich Schwantes  
Dr Bernd-Dieter Bohne  
Professor Florian Eitel (Munich)

Local Administration:

Dipl. phil. Burkhard Danz  
Charité  
Referat Studienangelegenheiten  
KW: AMEE

Schumannstraße 20/21  
10098 Berlin  
Germany

Tel.: 49 30 450 57 60 91 (42)  
Fax: 49 30 450 57 69 21  
Email: burkhard.danz@charite.de
Dear AMEE Members and Conference Participants:

On behalf of AMEE I should like to welcome you to the Berlin 2001 Conference. The AMEE annual conference is a focal point of the year, where members and non-members alike can meet to share ideas and to discuss problems and challenges facing them in their efforts to develop and improve medical and health care professions education in their institution. This year we have over 650 participants from 45 countries, more than ever before. Many are regular AMEE conference attendees, but every year we are pleased to see so many new faces who are keen to participate in what has become a major meeting in the medical education calendar.

The main topic of this Conference “Medical Education and Standards at a Time of Change” fits very much in time and space. The international community devoted to improving medical education is looking for standards that could guarantee the training of professionals to meet health and social needs across country boundaries; therefore to find ways of overviewing those standards from a transnational standpoint, without losing sight of local needs, is more than timely at the beginning of the third millennium. The city of Berlin has undergone spectacular changes in just a few short years and is still adapting to new times, new roles and new circumstances. Berlin offers a suitable context in which to present views and experiences on medical educational changes and reminds us of the ever-adapting attitude that we all should demonstrate in order to advance and progress in the field.

The Charité Campus Virchow-Klinikum of the prestigious Humboldt University of Berlin Medical School will be our meeting point and our inspiration to continue the work of the many important scientists on which the foundations of Medicine have been built. On behalf of us all I want to express my gratitude to the University for hosting the Conference.

The Berlin Conference programme holds exciting plenary sessions; workshops for innovation and learning how to think about strategies to achieve our goals; all led by well-known and respected educators in Medicine and health care. Large group sessions will focus on specific issues and challenges. Short communications and posters, close to 400 in total, will give us the opportunity to present our views and work, to discuss them and finally to interact.

Your attendance at the AMEE 2001 Berlin Conference is your own success and I wish you, AMEE friends, a most productive and enjoyable meeting.

Margarita Barón-Maldonado
President of AMEE
Executive Committee

President: Professor Margarita Barón-Maldonado (Spain)
Secretary/Treasurer: Professor Ronald Harden (UK)
Committee Members: Professor Ralph Bloch (Switzerland)
Professor Ioan Bocsan (Romania)
Professor Florian Eitel (Germany)
Dr Madalena Patrício (Portugal)
Professor Dominique Perrotin (France)
Professor Herman van Rossum (Netherlands)
Ex-officio Members: Professor Hans Karle
(World Federation for Medical Education)
Dr Jørgen Nystrup (Past President of AMEE)
AMEE Administrator: Mrs Pat Lilley
p.m.lilley@dundee.ac.uk
AMEE Secretary: Miss Tracey Martin
t.r.martin@dundee.ac.uk

Association for Medical Education in Europe
University of Dundee, 484 Perth Road, Dundee DD2 1LR, UK
Tel: +44 (0)1382 631953; Fax: +44 (0)1382 645748;
AMEE@dundee.ac.uk; http://www.amee.org

List of Sponsors

AMEE and the Local Organising Committee are most grateful to the Municipality of Berlin for their generosity in hosting the reception at the Opening Ceremony. We would also like to acknowledge the generous support of the Founder Sponsors:

Siemens AG – Medical Solutions
Schering AG
Freunde und Förderer der Charité
Medical Faculty of Humboldt University
SECTION 1

Information about Berlin and the Conference Venue
Conference Venue

A simplified map of Berlin and a plan of the campus showing the conference buildings and rooms appear on pages 1.5 and 1.6. A detailed map will be included in your registration pack.

General Information

Berlin

Berlin has a wide range of attractions. Annual highlights include theatre weeks, international concert performances and film festivals. Multiple theatres offer a range of performances from classic to modern drama, opera, ballet and light comedy. Berlin’s artistic treasures and museums, palaces, galleries and archives have earned high reputation all over the world. A great number of monuments bear witness to the history of Berlin and Prussian culture. Leisure time may be used for shopping downtown around the ‘Kurfürstendamm’ and the ‘Friedrichstraße’. There are opportunities for every taste and purse. Shopping hours are from 9.00-20.00 hrs Monday to Friday and from 0900 hrs to 1600 hrs on Saturday. All shops are closed on Sunday.

How to reach Berlin

Berlin can be reached easily by all means of transportation. Most airlines offer direct flights to Berlin Tegel airport, some also fly to Berlin Tempelhof or Berlin Schönefeld. A taxi from Berlin Tegel to the city centre (main hotel district) costs approx. DEM 30,00. There is also a bus service (line no. 109) between Berlin Tegel airport and the city centre. The fare is DEM 4,00. Main railway stations are Berlin Bahnhof Zoo, Berlin-Ostbahnhof, Bahnhof Berlin Lichtenberg. As the main airports are quite close to the city centre, no special arrangements have been made to transfer participants to the Conference hotels.

Weather

The congress takes place during the late summer/beginning of autumn where the temperatures are around 19°C (66°F) during the day and 10°C (50°F) at night. It may be useful to bring a sweater and raincoat.

Banks and Post Offices

Banks are open Monday-Friday between 0800-1800. Post Offices are open Monday-Friday between 0800-1800, and on Saturday between 0800-1200.

Currency Exchange

The unit of currency is the DeutscheMark (DEM). 1 DEM comprises 100 Pfennig. The rate of exchange at the time of going to press is £1 = DM 3.2; US$1 = DM 2.3; Euro 1 = DM 2. Major credit cards are widely accepted in hotels, restaurants and shops.
Berlin is famous for its wide variety of 7,000 restaurants serving international or German cuisine and for its countless pubs called “Kneipen” with their unique atmosphere. Some suggestions are:

### First-class gourmet restaurants

<table>
<thead>
<tr>
<th>Restaurant</th>
<th>District/address</th>
<th>Subway station</th>
<th>Telephone</th>
<th>Open</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borchardt</strong></td>
<td>(Mitte) Französische Str. 47</td>
<td>Französische Str.</td>
<td>20 38 71 10</td>
<td>daily 1100 to 2400 hrs</td>
<td>Amex, Visa</td>
</tr>
<tr>
<td><strong>Café Einstein</strong></td>
<td>(Tiergarten) Kurfürstenstr. 58</td>
<td>Nollendorfplatz</td>
<td>2 61 50 96</td>
<td>Daily 1000 to 0200 hrs</td>
<td>Amex, Visa, Euro</td>
</tr>
<tr>
<td><strong>Paris Bar</strong></td>
<td>(Charlottenburg) Kantstr. 152</td>
<td>Zoo</td>
<td>3 13 80 52</td>
<td>Daily 1200-0200 hrs</td>
<td>Amex</td>
</tr>
<tr>
<td><strong>Luther und Wegner</strong></td>
<td>(Mitte) Charlottenstr. 56</td>
<td>Französische Str.</td>
<td>2 02 95 40</td>
<td>Daily 0900-0200 hrs</td>
<td>Amex, Visa, Euro</td>
</tr>
</tbody>
</table>

### German cooking

<table>
<thead>
<tr>
<th>Restaurant</th>
<th>District/address</th>
<th>Subway station</th>
<th>Telephone</th>
<th>Open</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vau</strong></td>
<td>(Mitte) Jägerstr. 54-55</td>
<td>Hausvogteiplatz</td>
<td>2 02 97 30</td>
<td>Monday-Saturday from 1200 hrs</td>
<td>Amex, Visa, Diners, Euro</td>
</tr>
<tr>
<td><strong>Altes Zollhaus</strong></td>
<td>(Kreuzberg) Carl-Hertz-Ufer 30</td>
<td>Prinzenstrasse</td>
<td>6 92 33 00</td>
<td>Tuesday-Saturday 1800-0100 hrs</td>
<td>All credit cards</td>
</tr>
</tbody>
</table>

### Italian cooking

<table>
<thead>
<tr>
<th>Restaurant</th>
<th>District/address</th>
<th>Subway station</th>
<th>Telephone</th>
<th>Open</th>
<th>Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trattoria Lappaggi</strong></td>
<td>(Prenzlauer Berg) Kollwitzstr. 56</td>
<td>Senefelder Platz</td>
<td>4 42 63 47</td>
<td>Daily from 12 noon</td>
<td>Amex, Visa, Euro</td>
</tr>
<tr>
<td><strong>XII Apostel</strong></td>
<td>(Charlottenburg) Bleibtreustr. 49</td>
<td>Savignyplatz</td>
<td>3 12 14 33</td>
<td>Daily 24 hours</td>
<td>No credit cards</td>
</tr>
</tbody>
</table>
**Greek cooking**

**Ypsilon**  
District/address: (Schöneberg) Hauptstr. 163  
Subway station: Kleistpark  
Telephone: 7 82 45 39  
Open: Daily from 1700 hrs  
Cards: No credit cards

**Hip, for young people**

**Anita Wronski**  
District/address: (Prenzlauer Berg) Knaackstr. 26-28  
Subway station: Eberswalder Str.  
Telephone: 4 42 84 83  
Open: Daily 1000 to 0200 hrs  
Cards: No credit cards

**Ali Baba**  
District/address: (Charlottenburg) Bleibtreustr. 45  
S-Bahn-station: Savignyplatz  
Telephone: 8 81 13 50  
Open: Daily 1130 to 0300 hrs

**Live music scene**

**Kalkscheune**  
District/address: (Mitte) Johannisstr. 2  
Subway station: Oranienburger Straße  
Telephone: 28 39 00 65  
Cards: No credit cards

**Kulturbrauerei**  
District/address: (Prenzlauer Berg) Knaackstr. 97  
Subway station: Eberswalder Str.  
Telephone: 4 41 92 69  
Cards: No credit cards

**Schlot**  
District/address: (Prenzlauer Berg) Kastanienallee 29  
Subway station: Eberswalder Str.  
Telephone: 4 48 21 60  
Open: Daily from 1930 hrs  
Cards: No credit cards

**Beer garden**

**Prater Garten**  
District/address: (Prenzlauer Berg) Kastanienallee 7-9  
Subway station: Eberswalder Str.  
Telephone: 4 48 56 88  
Open: Daily from 1400 hrs  
Cards: No credit cards

**Café am Neuen See**  
(District/address: Tiergarten) in the middle of Tiergarten  
Telephone: 2 54 49 30  
Open: Daily 1000 to 2300 hrs  
Cards: All credit cards
Charité is the Medical Faculty of Humboldt-University Berlin. There are three separate campuses (Campus Virchow-Klinikum, Campus Mitte and Campus Berlin-Buch). Please note that our Conference, including the Pre-conference Workshops, will take place at:

Campus Virchow-Klinikum
Charité, Medical Faculty of Humboldt-University
Berlin-Wedding
Augustenburger Platz 1
Berlin D-13353
Germany

The Charité web page (German only) can be accessed as follows: http://www.charite.de/index/allginfo.html

Registration and most of the Conference sessions take place in the Teaching Building (Lehrgebäude), marked on the plan on page 1.5.

Transport in Berlin

Berlin is well served by a wide bus, tram, underground (U-Bahn) and city train (S-Bahn) network, operating from 0400 until midnight. On the reverse of your Conference name-badge in your registration pack is stamped the Berlin Transport Service logo and this badge also serves as a 4-day travel pass which can be used for local buses and trains.

The Campus Virchow-Klinikum is in the north west of the city, about 15 minutes by U-bahn from the city centre and can be reached by the following transport:

Underground (U-Bahn): line U9: Station: ‘Amrumer Straße’ (or line U6 to ‘Leopoldplatz’ and change to line U9)

Bus lines: X26, 126 stop: ‘Virchow-Klinikum’
221, 248 stop: ‘Amrumer Straße’

Tram: line 23 or 24, stop: ‘Virchow-Klinikum’

If travelling by U-Bahn, exit to the right. You will see signs to the AMEE Conference. It is about 5 minutes’ walk from the station to the Teaching Building.

Parking Facilities on Campus

Parking Spaces in the vicinity of the Virchow-Klinikum campus are hard to find. On-campus parking is possible (DEM 3 per hour), but spaces are very limited. There is a parking garage at the entrance Seestraße, where AMEE participants can park for a special fee of 15 DEM per day. Tickets are available at the conference desk.

Access to the campus for loading and unloading is free of charge for up to one hour.

Dress Code

Dress is informal for both day and evening sessions.

Smoking Policy for Conference

Smoking is not permitted in the University buildings, and you are asked to smoke outside only.
Conference Noticeboard and Messages

The Noticeboard is located by the Registration Desk. Messages and conference updates will be posted on the board and an adjacent board will be provided for messages for individuals. Phone and fax messages can be sent to you at the Registration Desk. Numbers will be available on the AMEE website from 27 August, or by contacting the AMEE Office.

Please note that the AMEE Office will be closed from 1800 hrs on Thursday 30 August until 0900 hrs on Friday 7 September. Whilst in Berlin we can be contacted at the Registration Desk.

Email Contact

Participants are welcome to use the Computer Room (Teaching Building, 2nd floor, room 2.0103) for email contact at all times except during scheduled workshops: Saturday 1345-1700; Sunday 0915-1230; Monday 1345-1600; Tuesday 1345-1700).

CME Accreditation and Certificates of Attendance

The Conference has been approved by the Royal College of Physicians of London for 21 CME credits for attending the full Conference. Certificates of attendance, conforming to the guidelines provided by the Royal College of Physicians, will be available on Wednesday 5 September from 1200 hrs and a register will be available for signature at the same time.

Abstracts

Abstracts will appear on the Conference web site soon after the conference. If there are any changes to be made to your abstract as it appears in the programme/abstract book, please contact the Registration Desk or the AMEE Secretariat in Dundee.

Conference Evaluation

We welcome feedback on which aspects of the Conference you have enjoyed, and the things you have found less satisfactory. Suggestions for speakers and workshop organisers for future conferences are also much appreciated. Please complete the evaluation form in your conference pack and either leave it in the box on the registration desk or send it to the AMEE Office.

Registration

The registration desk is open in the Teaching Building (Lehrgebaude), Campus Virchow-Klinikum, (see plan of Campus on page 1.5) at the following times:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
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<tbody>
<tr>
<td>Saturday 1 Sept</td>
<td>1200-1730</td>
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<tr>
<td>Sunday 2 Sept</td>
<td>0800-1700</td>
</tr>
<tr>
<td>Monday 3 Sept</td>
<td>0745-1730</td>
</tr>
<tr>
<td>Tuesday 4 Sept</td>
<td>0800-1715</td>
</tr>
<tr>
<td>Wednesday 5 Sept</td>
<td>0800-1630</td>
</tr>
</tbody>
</table>

Please use the appropriate registration point:

- **Point A:** Registered participants with family names beginning with A-F
- **Point B:** Registered participants with family names beginning with G-N
- **Point C:** Registered participants with family names beginning with O-Z
- **Point D:** Unregistered participants, late registrants who have not paid, and those requiring further assistance
Tours/Accommodation Registration

DER-Congress will have a representative available at the Registration Desk at the following times:

- Saturday 1 September: 1200-1730
- Sunday 2 September: 0800-1700
- Monday 3 September: 1200-1400
- Tuesday 4 September: 1200-1400
- Wednesday 5 September: 1200-1400

If you have reserved hotel accommodation, tours or social events through DER you should collect vouchers from them. All participants making hotel reservations through DER will need a voucher to present to the hotel on departure so that the pre-paid deposit may be deducted from the final hotel bill.

Information on the Academic Programme

An overview of the programme is shown on pages 1.13 and 1.14. On page 1.15 is a personal diary form on which you may like to note the presentations you particularly want to attend.

Plenary Presentations

These are scheduled for Sessions 1 and 9 and will take place in Hörsaal 1 and 2. Hörsaal 3 is linked by video to provide additional seating if necessary.

Large Group Sessions

Three simultaneous large groups are scheduled in Session 4. After the presentations the chairperson will open up an interactive discussion between presenters and audience.

Short Communications

These are scheduled for Sessions 2, 5, and 8. In Sessions 2 and 5 there are 13 simultaneous groups of short communications each with a theme and in Session 8 there are 12 simultaneous groups. The room in which each group will take place is indicated in the grid on page X. This year we have tried very carefully to group relevant presentations together and encourage you to stay for a whole session and take part in the discussion at the end. Please feel free, however, to move between sessions. We have asked the Chairpersons to ensure that all sessions follow the time scheduled in the programme. If you do choose to move between sessions, please do so as quietly as possible. Each presenter has been allocated a ten minute presentation followed by five minutes for discussion. A 15 minute period has been allocated at the end of most sessions for a general discussion, led by an opening discussant. Each session will also have a chairperson.

Information for Presenters of Short Communications

Slide viewing area: The Mediothekraum (Teaching Building, first floor) may be used for testing audio-visuals and spare carousels will be available for slides. Please do not take these earlier than during the session prior to yours and return them as soon as possible afterwards. PowerPoint presentations can also be tried out in advance (see below).
**OHP and slides:** An OHP and a 35 mm slide projector are available in every room.

**Computer projection:** A data projector/beamer is available on request. If you are planning to use a computer presentation it is essential we know this in advance, either on the form supplied when your presentation was accepted or by email. *This year we ask that you bring your presentation on a CD-ROM or zip disk clearly marked with your name and session number, as your own laptop may not be suitable for use with the in-house system. Laptop computers will be supplied in every room.* Presentations made using the PC version of PowerPoint 1997 and 2000 are compatible with the in-house system. Mac users should ensure that their presentations are saved on PC formatted disks. Please see the technician in the Mediothekraum preferably on Sunday, or at least one day before your session in order that your presentation may be loaded up on the appropriate computer. If you are a Mac user and wish to have more specific information, or if there is a video incorporated into your presentation please contact Pat Lilley (p.m.lilley@dundee.ac.uk)

**Technical assistance during the sessions:** A technician will be available in each of the large lecture theatres, and students familiar with use of the equipment will be available in each of the smaller rooms. Each room is equipped with a telephone by which help may be requested if necessary.

**Your presentation:** The following guidelines will help ensure the smooth-running of sessions.

- Please arrive at least ten minutes before the scheduled start of the session and introduce yourself to the chairperson.
- Keep strictly to the time allotted for your presentation. *This is essential.* The Chairperson will remind you when your time limit has expired and will then ask the audience for questions.
- Please speak slowly and clearly.
- Ensure your overheads and slides are clear, that there is not too much text to read in the limited time available and that the type is large enough to be legible for those sitting at the back of the room.
- Whilst not obligatory, a single page hand-out, giving the key messages from your presentation, is always appreciated. As a rough indication you could expect between 40-60 participants in the audience.

### Role of the Chairperson in the Short Communications Sessions

1. Before the session starts, check that the speakers and opening discussant are present;
2. Introduce each speaker according to the programme. Tell him/her when the allotted 10 minute presentation period is over (a timer will be provided) and ask the speaker to stop his/her presentation;
3. Allow 5 minutes for discussion between presentations;
4. If a speaker is not present, arrange for the 15 minute period to be used for further discussion; the next presentation should not start until the scheduled time;
5. Ask the opening discussant to lead off the discussion at the end of the session;
6. Draw the session to a close and thank participants;
7. Follow strictly the time schedule in the programme to allow participants to move between sessions.

### Role of the Opening Discussant in the Short Communications Sessions

Introduce the topic in the context of the papers presented and highlight the key points for discussion arising from the papers. This should take no more than 5 minutes.
There will be twelve themed groups of posters on show throughout the Conference in the areas listed below. Please see pages 2.27 to 2.37 for details of presentations in each session and see below for the locations of the posters which are all in the Teaching Building on either floor 1 or floor 2:

<table>
<thead>
<tr>
<th>Session No</th>
<th>Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7A</td>
<td>New Learning Technologies</td>
<td>Floor 2</td>
</tr>
<tr>
<td>7B</td>
<td>Problem-Based Learning</td>
<td>Floor 2</td>
</tr>
<tr>
<td>7C</td>
<td>Curriculum Planning and Change</td>
<td>Floor 2</td>
</tr>
<tr>
<td>7D</td>
<td>Curriculum Evaluation/Staff Development</td>
<td>Floor 1</td>
</tr>
<tr>
<td>7E</td>
<td>Postgraduate Education</td>
<td>Floor 2</td>
</tr>
<tr>
<td>7F</td>
<td>Assessment</td>
<td>Floor 1</td>
</tr>
<tr>
<td>7G</td>
<td>Teaching &amp; Learning 1</td>
<td>Floor 2</td>
</tr>
<tr>
<td>7H</td>
<td>Teaching &amp; Learning 2</td>
<td>Floor 2</td>
</tr>
<tr>
<td>7I</td>
<td>Continuing Professional Development 1</td>
<td>Floor 1</td>
</tr>
<tr>
<td>7J</td>
<td>Continuing Professional Development 2</td>
<td>Floor 1</td>
</tr>
<tr>
<td>7K</td>
<td>International Medical Education</td>
<td>Floor 1</td>
</tr>
<tr>
<td>7L</td>
<td>Special Subjects</td>
<td>Floor 1</td>
</tr>
</tbody>
</table>

Poster presentations will take place on Wednesday 5 September from 0830-1000 hrs. The sessions will start in the room designated for the presentations (see page 1.13), where each presenter will have two minutes to highlight the key points to look out for in the poster. Two overheads or slides are allowed for the presentation. Computer projection is not available. A chairperson will introduce each presenter. Following the short presentations the group will move to the relevant poster area for a group discussion.

**Information for Presenters of Posters**

Posters may be mounted at the following times:

- Saturday 1 September between 1200-1730 hrs
- Sunday 2 September between 0830-1700 hrs
- Monday 3 September between 0745-1730 hrs

Posters will be grouped in themes, and the identification number, name(s) of the author(s) and title of the poster will be clearly labelled on each poster board. Poster boards are 120 cm wide and 150 cm high, fixed with pins. A supply of pins will be available but you may find it useful to bring your own.

**To Help the Poster Sessions run Smoothly**

1. Poster presenters should meet in the room allocated to the session at 0820 hrs on Wednesday 5 September, and make themselves known to the chairperson.
2. Presenters must keep strictly to the 2 minutes allowed for initial presentation of the poster, and may use one or two overheads or slides (no data projection). No time is allowed for discussion at this stage. This time should be used to highlight key points to look for in the poster, not to summarise the poster.
3. After all the short presentations have been made, the group will go to the poster area allocated.
4. Presenters should stand by their posters, and be prepared to answer questions. It is useful to have some photocopied handouts (approximately 40-80) for distribution, with the key messages of the poster.
5. It is helpful if the presenter can indicate on his/her poster board an alternative time when he/she will be available (eg a lunch or coffee break) in case anyone who cannot attend the session would like to discuss the poster.
**Role of the Chairperson in the Poster Sessions**

1. Before the sessions start, check that the presenters have arrived;
2. Introduce each presenter and allow two minutes for the presentations. Do not allow any time for discussion between presentations, which should take up to 30 minutes, depending on the number in the group.
3. At the end of the presentations lead the group to the poster area;
4. Allow the group to look at all the posters (it is suggested that between 15-30 minutes is allowed for this activity);
5. Invite questions for discussion.

**Medical Teacher Poster Prize**

Taylor and Francis Ltd, the publisher of Medical Teacher, has generously agreed once again to sponsor a prize of £150 to be awarded for the best poster at the Conference. Posters will be judged, by a Committee, on the following criteria:

- How well are the key messages communicated through the poster?
- Does the poster arouse the interest of the viewer?
- Is the poster attractive?

The winner will be announced at the end of the final plenary session on Wednesday 5 September. In addition to the prize money, the winner will receive one year’s individual membership of AMEE, which includes a personal copy of Medical Teacher.

**Workshops**

*Pre-Conference Workshops:* Pre-booking of Pre-Conference Workshops via the AMEE Secretariat is essential, and a charge is made. At the time of going to press almost all the pre-conference workshops are full.

*Conference Workshops:* Workshops in Session 3 are listed on pages 2.13 to 2.14 and those in Session 6 on pages 2.25 to 2.27. A full description of the workshop content is given in the Abstracts section (pages 4.23 and 4.51).

Enclosed with this programme is a Selection Form. One of the items relates to workshop choice. Pre-booking of conference workshops offers a better chance of attending your first choice of workshops in Sessions 3 and 6. Please complete the information requested and either return the form to the AMEE Office or email your choices to AMEE@dundee.ac.uk. There is no charge for attending conference workshops. A list of workshops and attendees will appear on the notice board adjacent to the Registration area with an indication of the number of places remaining. Depending on the format, some organisers wish to limit participation in their workshops, and we regret that you might not be able to attend your first choice on each occasion.
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**SESSION 1**
Monday
0830-1030

- **PLENARY**
  - Achieving standards in the curriculum
  - Video link to Plenary Hall

**SESSION 2**
Monday
1100-1300

- A Virtual Learning Environment
  - PBL and the Curriculum database
  - OSCE/Standardised Patients in Assessment
  - Postgraduate Education - the Early Years
  - Peer Assessment
  - Continuing Professional Development
  - Selection
  - Educating the Educators 1
  - Simulation and Clinical Skills Training
  - Student and Curriculum Evaluation
  - Multi-professional Education
  - Student Support
  - Psychiatry and the Curriculum

Workshops - Please see details on next page

**SESSION 3**
Monday
1400-1600

Workshops - Please see details on next page

**SESSION 4**
Tuesday
0830-1030

- LGS 1 Standards & professionalism in medical education
- LGS 2 International aspects of standards
- LGS 3 Standards and the curriculum

**SESSION 5**
Tuesday
1100-1300

- Learning and the Internet
- Evaluation of Problem-based Learning
- Curriculum Evaluation
- Assessing Communication Skills/Patients as Examiners
- Postgraduate Education for Gen Practice/Family Medicine
- Assessment
- Outcome-based Education
- Educational Strategies/Curriculum Planning
- Educating the Educators 2
- Education and Cultural Diversity
- Contexts for Learning
- Evaluation of Multiprofessional Education
- Teaching about EBM, Critical Thinking and Research

Workshops - Please see details on next page

**SESSION 6**
Tuesday
1400-1700

Workshops - Please see details on next page

**SESSION 7**
Wednesday
0830-1030

- New Learning Technologies
- Problem-based Learning
- Curriculum Planning and Change
- Curriculum Evaluation/Staff Development
- Postgraduate Education
- Assessment
- Teaching and Learning 1
- Teaching and Learning 2
- Continuing Professional Development 1
- Continuing Professional Development 2
- International Medical Education
- Special Subjects

**SESSION 8**
Wednesday
1030-1230

- Computer Mediated Learning and Assessment
- Implementation of Problem-based Learning
- Curriculum Planning
- The Final Examination
- Postgraduate Education/Career Choice
- Teaching and Learning
- Assessment in Postgraduate and Continuing Education
- Curriculum Change
- Communication Skills Training
- Clinical Teaching
- International Aspects of Medical Education
- Special Subjects

**SESSION 9**
Wednesday
1300-1600

- **PLENARY**
  - Different views of medical education
  - Video Link to Plenary Hall
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<td>The role of the teacher</td>
<td>Feedback and evaluation: essential activities in the learning process</td>
<td>Best Evidence Medical Education Progress Report</td>
<td>East European Task Force</td>
<td>Making and feedback during clerkships meaningful and effective</td>
<td>Concept mapping</td>
<td>Effective student assessment: something old, something new</td>
<td>A bachelor of master structure of medical education in Europe</td>
<td>The assessment of poorly performing doctors</td>
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<td>Professional and organisational culture of medical education</td>
<td>Developing professional attitudes theory, practice and evaluation</td>
<td>AMEE Euro-American Network Workshop</td>
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### Personal Diary

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**Note:** While you are free to move between short communication and poster sessions, we hope you will stay in one session and join in the discussion.
List of Exhibitors

Association for Medical Education in Europe
Association for the Study of Medical Education, UK
Centre for Medical Education, University of Dundee, UK
Croatian Association for Medical Education
Faculty of Medicine, University of Lisbon, Portugal
Humboldt-University Berlin, Germany
IAMSE
Kaplan Medical, USA
Medical Teacher
National Association of Clinical Tutors (NACT), UK
Netherlands Association for Medical Education
Nordic Federation for Medical Education - NFME
Open University Centre for Education in Medicine, UK
Ottawa Conference
Spanish Association for Medical Education - SEDEM
Taylor & Francis Ltd, UK
Teaching & Learning Support Network, UK
SECTION 2

The Academic Programme
Saturday 1 September

Pre-conference tours – see page 3.4 for details

1200-1730

Registration Desk open at Campus Virchow-Klinikum and setting up of Posters and Exhibits.

1400-1700

Pre-conference workshop PCW1: Web-based learning (Part 1).
Room: Teaching Building, Computer Room 2.0103 (2nd floor)
Coffee for workshop participants in Studentencafé at 1530.

1400-1700

AMEE Executive Committee Meeting
Teaching Building Room 2.0214 (2nd floor) (closed meeting)
Sunday 2 September

0800-1700  Registration Desk open at Campus Virchow-Klinikum and setting up of Posters and Exhibits.

0930-1230  Pre-conference workshops

Please note: it is essential to reserve a place on these workshops, for which a charge is made. Coffee for workshop participants in Studentencafé at 1100. Lunch is not provided.

PCW1  Web-based learning (Part 2). (Part 1 on Saturday afternoon)
Dr Martin Fischer, University of Munich, Germany, and Dr Raphael Bonvin, University of Basel, Switzerland
Room: Teaching Building, Computer Room 2.0103 (2nd floor)

PCW2  Faculty rewards and incentives in medical education: the challenges and the promise
Dr Sharon Krackov, New York University School of Medicine, USA
Room: Teaching Building, 2.0101 (2nd floor)

PCW3  Strategies for sustaining change in medical education
Dr Stewart Memmin, and Dr Scott Obenshain, University of New Mexico School of Medicine, Albuquerque, USA
Room: Teaching Building, 2.0102 (2nd floor)

PCW4  Assessing the reliability of mastery-level decisions in OSCE and Standardized Patient examinations: an overview of common methods and practical applications
Dr André De Champlain, National Board of Medical Examiners, Philadelphia, USA, and Dr John Boulet, Educational Commission for Foreign Medical Graduates, Philadelphia, USA
Room: Teaching Building, 2.0104 (2nd floor)

PCW5  Consultant appraisal
Dr Steven Wilkinson, Centre for Organisational Research, Anglia Polytechnic University, UK, and Dr Kwee Matheson, West Suffolk Hospital, UK
Room: Research Building, 2.0026 (2nd floor)

PCW6  Developing competence in lifelong learning
Hajo Schmidt-Traub and colleagues: Medical Students from Charité, Medical Faculty of the Humboldt-University, Berlin
Room: Teaching Building, 1.0105 (1st floor)

PCW7  Curriculum change in a traditional medical school
Professor Herman van Rossum and Dr Janke Cohen-Schotanus, Groningen University, Netherlands
Room: Teaching Building, 1.0107 (1st floor)
0930-1100  **BEME Steering Group Meeting**  
Teaching Building, Room 2.0214 (2nd floor) *(closed meeting)*

1115-1245  **Medical Teacher Editorial Board Meeting**  
Teaching Building, Room 2.0214 (2nd floor) *(closed meeting)*

1400-1700  **City coach tour**  
Included in registration fee for registered participants and registered accompanying persons - see page 3.1 for details.

1930-2130  **Opening Ceremony and Reception at Red Town Hall (Rotes Rathaus)**  
Included in registration fee for registered participants and registered accompanying persons - see page 3.1 for details.
Monday 3 September

0745-1730
Registration desk open at Campus Virchow-Klinikum

0830-1030
Session 1: Plenary

Achieving standards in the curriculum
Room: Teaching Building, Hörsaal 1 and 2
(Note: there will be a video link to Hörsaal 3 to provide additional seating)
Chairperson: Professor Margarita Barón-Maldonado, Spain

1/1 Towards global standards for medical education
Dr Jordan Cohen – President, Association of American Medical Colleges, Washington DC, USA

1/2 New times, new standards: the social accountability of health systems and medical schools
Dr Charles Boelen – Coordinator, Human Resources for Health Program, World Health Organization, Geneva, Switzerland

1/3 Death of the course
Professor Ronald Harden – Director, Centre for Medical Education, University of Dundee, and Director – Education Development Unit, Scottish Council for Postgraduate Medical and Dental Education, UK

1000-1030
Discussion

1030-1100
Coffee served in the foyers of the Teaching and the Research Buildings

1100-1300
Session 2: Short Communications

13 simultaneous themed sessions on a range of topics:

A Virtual Learning Environment
Chairperson: Professor Rein Zwierstra
Room: Teaching Building, Hörsaal 1 (Ground Floor)

1100-1115
1 Virtual learning environments - a learner centred review
Megan Quentin-Baxter* and Suzanne Hardy; Learning and Teaching Support Network, University of Newcastle-upon-Tyne, UK

1115-1130
2 Impact of a digital learning environment on the efficiency of teachers
Peter G M de Jong* and Hermiette E Idenburg; Leiden University Medical Center, The Netherlands
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<td>1130-1145</td>
<td>3 Building blocks in a new curriculum: the role of the library in</td>
<td>Educational Innovation</td>
<td>Magriet Lee and Maureen Brassel*; University of Pretoria, South Africa</td>
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<td>4 IT learning environment: more structure or more room for</td>
<td>Manoeuvre? Centrally guided norm path or absolute freedom?</td>
<td>J Degryse*, A Roex and W Renier; K U Leuven, Belgium</td>
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<td>1200-1215</td>
<td>5 Innovation in self-directed learning (SDL) in CME: Virtual Internet</td>
<td>Patient Simulation</td>
<td>M A Raeto*, R L Thivierge, R J Gagnon, V Loroch and A Bonneau; University of</td>
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<td>6 Real learning through virtual presentation: an Internet based work</td>
<td>Environment course for medical students at Uppsala University</td>
<td>Montreal, Canada</td>
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<td>1230-1300</td>
<td>Discussion</td>
<td>[Opening Discussant: Professor Ian Hart]</td>
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<td></td>
<td><strong>PBL and the Curriculum</strong></td>
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<td>Chairperson: Dr Michael Schmidts</td>
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<td>1100-1115</td>
<td>1 The birth of a new species - squirrums: towards equal collaboration</td>
<td>Innovation in Medical Education</td>
<td>Peter McCrorie* and David Prideaux*; St George’s Hospital Medical School, London,</td>
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<td>2 Broadening learning with PBL in a Pathophysiology course</td>
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<td>1130-1145</td>
<td>3 The implementation of problem-based learning (PBL) into a</td>
<td>Medical education innovations in Dresden, Germany: Reformed</td>
<td>U Keske, U K M Teichgräber, R Schröder, J Berger, S Venz and R Felix; Humboldt</td>
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<td>4 Medical education innovations in Dresden, Germany: Reformed</td>
<td>Medical Faculty Carl Gustav Carus, Dresden University of Technology</td>
<td>University, Germany</td>
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<td>5 Problem-Based Learning in Immunology and Infectious Disease</td>
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<td>S Weber*, G Bareton, S Bergmann, J Graeszler, E Jacobs, H Kimath, I Nitsche, U</td>
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<td>6 From case-based reasoning to problem-based learning</td>
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<td>Ravens, A Rethwilm and P Rieber; Dresden Medical School, Germany</td>
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<td>1230-1245</td>
<td>7 A new approach to PBL in CME; using script concordance tests (SCT)</td>
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<td>M Labelle*, C Maille, R L Thivierge and B Charlton; University of Montreal, Canada</td>
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8 Discovering versus covering: a new PBL in Behavioural Sciences
Ala’Aldin Al-Hussaini and Harith Ghassany; Sultan Qaboos University, Al-Khod, Sultanate of Oman

Curriculum Database
Chairperson: Dr Ed Peile
Room: Teaching Building, Hörsaal 3 (Ground Floor).

1100-1115
1 Aiding the reform - development of a curriculum information system
Patrick Merl*, Paolo Petta and Richard Marz University of Vienna Medical School, Austria

1115-1130
2 How effective is project management software in implementing a new course?
Katharine Grundy; St George's Hospital Medical School, London, UK

1130-1145
3 MESMIS – Medical School Staff/Student Management Information System: Towards the electronic curriculum
D A Levison and W M Williamson; University of Dundee Medical School, Dundee, UK

1145-1200
4 SIMON - Student Information and Management Online Network
P Wagner*, D Zeiss*, S König*, P M Markus and H Becker; University of Gottingen, Germany

1200-1215
5 Portfolio-based Dermatology internship - one year's experience
A Boer*, R Kaufmann and F Ochsendorf; Universitäts-Hautklinik, Germany

1215-1230
6 Profile of the consultations made by fifth year medical students in the integrated program of Pediatrics and Public Health
Claudia Astudillo, Rocío Arenas, Mariá Bustamante*, Mariá De La Fuente and Gladys Yentzen; Universidad de Chile, Santiago, Chile

1230-1300 Discussion [Opening Discussant: Dr David Davies]

OSCE/Standardised Patients in Assessment
Chairperson: Dr Gerald Whelan
Room: Research Building, Hörsaal 4 (Ground Floor)

1100-1115
1 “Check it, rate it, palm it or leave it” - handheld computers replace checklists in OSCEs and provide automated feedback
Michael Schmidt*, Markus Kemmerling, Ruth Willnauer and Martin Lischka; Institute für med. Aus-und Weiterbildung, Vienna, Austria

1115-1130
2 Evaluation of the undergraduate surgery course: effect of OSCE
Marco Bustamante Z*, Carlos Carvajal H, Fernando Quevedo R, María Bustamante C and Claudia Astudillo M; Universidad de Chile, Santiago, Chile

1130-1200
3 OSCE: are many different stations necessary for each evaluation?
Carlos Carvajal*, Marco Bustamante and Ilse López; Universidad de Chile, Santiago, Chile
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<td>1145-1200</td>
<td>4</td>
<td>Assisting ‘attitude awareness’ as part of an OSCE</td>
<td>Nicholas P Fenlon*, Maureen Kelly, Andrew W Murphy and Gerard Loftus; National University of Ireland, Galway, Ireland</td>
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<td>1200-1215</td>
<td>5</td>
<td>Is the assessment of clinical skills affected by the choice and characteristics of the standardized patients?</td>
<td>T Errichetti*, J Boulet, G Whelan and D McKinley; ECFMG, Philadelphia, USA</td>
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<td>1215-1230</td>
<td>6</td>
<td>Use of standardized patients to assess medical response to a natural disaster</td>
<td>Graceanne Adamo*, Marguerite Hawkins, Heidi Worth-Dickstein, Eric Marks, Ralph Jones, Gilbert Muniz and Richard E Hawkins; Uniformed Services University of the Health Sciences, Bethesda, USA</td>
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<td>1230-1245</td>
<td>7</td>
<td>The weakest link? Performance factors and degrees of influence in an interactive long-station general practice examination (VOICEs)</td>
<td>C M Wiskin*, T Allan and J Skelton, University of Birmingham, UK</td>
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<td>1245-1300</td>
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<td>Discussion</td>
<td>[Opening Discussant: Professor Stewart Petersen]</td>
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<td>1100-1115</td>
<td>1</td>
<td>New PRHO: “I am not sure what I am supposed to do”. Can we improve on PRHO induction? An evaluation of a new induction process</td>
<td>Dason Evans*, Mike Roberts and Diana Wood; St Bartholomew’s and the Royal London Medical and Dental School, London, UK</td>
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<td>1115-1130</td>
<td>2</td>
<td>A comparison of Pre-registration House Officers’ (PRHOs) and Senior House Officers’ (SHOs) experience in general practice</td>
<td>Jan Filling*, Tim van Zuurenberg, Bill Cunningham, George Taylor, Richard Prescott and Cath O’Halloran; University of Newcastle, UK</td>
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<td>1130-1145</td>
<td>3</td>
<td>Pre-registration experience in general practice: results of a national evaluation</td>
<td>Janet Grant*, Lesley Southgate, Rodney Gale, George Freeman, Alison Hill, Neil Johnson, Frank Smith, Mairead Beirne and Heather Owen; Open University Centre for Education in Medicine, Milton Keynes, UK</td>
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<td>1145-1200</td>
<td>4</td>
<td>Family Medicine Month: a human life cycle approach for first year residents</td>
<td>Linda Z Nieman, Rebecca Gladiu, Thelma Jean Goodrich, Janet Groff and Mary M Velasquez; UT Houston Health Science Center, Houston, USA</td>
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<td>1200-1215</td>
<td>5</td>
<td>Making and sharing decisions about management with patients: the views and experiences of Pre-Registration House Officers</td>
<td>Jill Thistlethwaite; University of Leeds, UK</td>
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<td>1215-1230</td>
<td>6</td>
<td>Teaching the forgotten tribe: tutor views on a generic curriculum for SHOs</td>
<td>Lesley Pugsley* and Janet MacDonald; University of Wales College of Medicine, Cardiff, UK</td>
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<td>1230-1245</td>
<td><strong>General professional training (GPT) for dental graduates in the UK</strong></td>
<td>Alison Bullock*, Vickie Firmstone and John Frame; University of Birmingham, UK</td>
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<td>1245-1300</td>
<td><strong>Discussion</strong></td>
<td>[Opening Discussant: Dr Jon Dowell]</td>
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<td>2F</td>
<td><strong>Peer Assessment</strong></td>
<td>Chairperson: Waltraud Georg; Room: Teaching Building, Mikroscopierraum (First Floor)</td>
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<td>1100-1115</td>
<td><strong>1</strong> Peer- and co-assessment leads to shared responsibility for test results</td>
<td>Caro Brunsen and Peter G M de Jong*; Leiden University Medical Center, The Netherlands</td>
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<td>1115-1130</td>
<td><strong>2</strong> Student self-marking as an assessment approach to developing professionalism</td>
<td>G J Mires* and M Friedman Ben-David; University of Dundee, UK</td>
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<td>1130-1145</td>
<td><strong>3</strong> Comprehensive Assessment: value for learning</td>
<td>Elaine F Dannefer; University of Rochester Medical Center, USA</td>
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<td>1145-1200</td>
<td><strong>4</strong> Attributes of the excellent physician: a third year student survey</td>
<td>A V Carneiro*, M F Patricio and J Fernandes e Fernandes; University of Lisbon School of Medicine, Portugal</td>
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<td>1200-1215</td>
<td><strong>5</strong> The Medical Student Peer Evaluation Initiative: assessment of performance in small group settings</td>
<td>Steven L Kanter*, Kathleen Ryan, John Mahoney and Joan Harvey; University of Pittsburgh, Pittsburgh, USA</td>
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<td>1215-1230</td>
<td><strong>6</strong> Reliability of a multidimensional questionnaire to assess attitudes of medical students towards their future profession: the UNI Project</td>
<td>G L Werneck*, E C O Ribeiro, A C Aguiar and V M B Ribeiro; Nucleo de Estudos de Saude Coletiva, Alzal Sul, Brazil</td>
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<td>1230-1245</td>
<td><strong>7</strong> Narrowing the gap in the assessment process</td>
<td>Nicolas Karlsson, University of Goteborg, Sweden</td>
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<td>1245-1300</td>
<td><strong>Discussion</strong></td>
<td>[Opening Discussant: Professor Ara Tekian]</td>
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<td>2G</td>
<td><strong>Continuing Professional Development</strong></td>
<td>Chairperson: Dr Peder Charles; Room: Teaching Building, Room 2.0102 (Second Floor)</td>
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<td>1100-1115</td>
<td><strong>1</strong> Learning and partnering: bringing pharmaceutical representatives into the educational loop</td>
<td>Jane Tipping*, Craig Campbell, Jean Claude Dairon, Paul Davis, Francois Goulet, Gilles Lachance, Celine Monette, Joan Sargeant, Linda Snell and Robert Thivierge, Canada</td>
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<td>1115-1130</td>
<td>2 CME with a combination of standardised patients and a CBT programme</td>
<td>S Schewe*, A Schewe and J Loohs; Medizinische Poliklinik, Munich, Germany</td>
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<td>1130-1145</td>
<td>3 The impact of continuing professional development (CPD): 30 case studies of dentists</td>
<td>Vickie Firmstone*, Alison Bullock and John Frame; University of Birmingham, UK</td>
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<td>1145-1200</td>
<td>4 Global trends in continuing medical education</td>
<td>Lewis A Millar; Global Alliance for Medical Education, Darton, USA</td>
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<td>1200-1215</td>
<td>5 Do we need consultant appraisal?</td>
<td>K H Matheson; West Suffolk Hospital, Bury St Edmunds, UK</td>
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<td>1215-1230</td>
<td>6 When should clinicians be trained in management?</td>
<td>J Clark*, R Palmer and P Spurgeon; University of Birmingham, UK</td>
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<td>1230-1245</td>
<td>7 Evaluation of ‘Distance Interactive Learning in Obstetrics and Gynaecology (DIALOG)’</td>
<td>Vikram Jha*, Sean McAleer and Sean Duffy; St James's University Hospital, Leeds and University of Dundee, UK</td>
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<td>1245-1300</td>
<td>Discussion [Opening Discussant: Dr Brendan Hicks]</td>
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<td>1100-1115</td>
<td>1 Selecting aboriginal students to health professional courses</td>
<td>I E Rolfe and G Garvey*; University of Newcastle, Australia</td>
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<td>1115-1130</td>
<td>2 Demographic and scholastic correlates of scores in the Australian Undergraduate Medical and Health Sciences Admission Test (UMAT)</td>
<td>Peter Tutton*, Chris Browne, Margot Story and Michael Lewenberg; Monash University, Australia</td>
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<td>1130-1145</td>
<td>3 Can we make the interview add something new?</td>
<td>P Hughes, S Miller*, P McCrorie and A Kent; St George’s Hospital Medical School, London, UK</td>
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<td>1145-1200</td>
<td>4 Relative effects of learning style, MCAT and prior academic record on performance in medical school</td>
<td>Stephen Aaron* and Ernest Skakan; University of Alberta, Canada</td>
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<td>1200-1215</td>
<td>5 The selection of GP trainees in the West Midlands: audit of assessment centre scores by ethnic background and country of qualification</td>
<td>Celia Brown*, Sarah Wakefield and Alison Bullock; University of Birmingham, UK</td>
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<td>1215-1230</td>
<td>6 The selection of GP trainees: perceptions of the new regional system</td>
<td>Sarah Wakefield*, Celia Brown and Alison Bullock; University of Birmingham, UK</td>
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1230-1245

7  “I want to become a doctor.” Analysis of first year students’ motivations
    M F Patricio* and J Gomez-Pedro; University of Lisbon, Portugal

Discussion [Opening Discussant: Miss Gill Clack]

Educating the Educators (1)

Chairperson: Professor Olle ten Cate
Room: Teaching Building, Room 2.0104 (Second Floor)

1100-1115

1  Evaluation of a Train the Trainers program in quality improvement and cost-effectiveness
    Antoinette S Peters*, Maryjoan Ladden and Robert Fletcher; Harvard Medical School, Boston, USA

1115-1130

2  Teaching the medical teachers - Beyond ‘TIPS’
    Jane Richardson* and Jonathan D Cartridge; University College London, UK

1130-1145

3  Formal courses in further training of medical teachers
    M Vrćic-Keglevic*, Z Jakšić, G Pavelekovic, N Pokrajac, A Smulcelf and B Vrhiouv; ‘A. Stampar’ School of Public Health, Zagreb, Croatia

1145-1200

4  Supporting Clinicians on Training in Scotland
    Rose Martin, on behalf of Supporting Clinicians on Training in Scotland Working Group; Scottish Council for Postgraduate Medical and Dental Education, Dundee, UK

1200-1215

5  Improving own teaching skills identified as a top priority by Registrars
    Iwona Stolarek; Hutt Hospital, Wellington, New Zealand

1215-1230

6  Dissemination of teaching of medical interviewing and physical examination in Japan
    N Ban*, M Hatao, J Ohitaki, M Fujisaki, C Nakamura, T Tsuda, T Matsumura and M Shimo; Nagoya University School of Medicine, Japan

1230-1245

7  Transformational learning in a peer teaching programme
    Angel M Centeno*, Alexandra Blanco and Soledad Campos; Austral University, Buenos Aires, Argentina

1245-1300

Discussion [Opening Discussant: Dr Clair DuBoulay]

Simulation and Clinical Skills Training

Chairperson: Professor Andrzej Wojtczak
Room: Building 10, Room 1.0107 (Lower Ground Floor)

1100-1115

1  Teaching clinical skills to medical students using the clinical skills laboratory with a new simulator and new tools
    I Yoshida*, T Ueno, M Hotta, H Abe, I Kabara, S Kono, Y Ogo, S Watanabe, A Hayashi, T Akagi, S Okada and M Sata (Working Group on Teaching Basic Clinical Skills); Kurume University, Japan
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<td>Training in vaginal examination technique using the ‘epelvis’</td>
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<td>C M Pugh* and M S Marsh; GKT Medical School, London, UK</td>
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<tr>
<td>1130-1145</td>
<td>Training medical students to perform vaginal examination using the</td>
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<td>M S Marsh* and C M Pugh; GKT Medical School, London, UK</td>
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<td>1145-1200</td>
<td>Procedural failures - when is enough enough?</td>
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<td>Michael Harrison; Auckland Hospital, New Zealand</td>
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<td>1200-1215</td>
<td>Approaches and advancements; Integrating simulation center activities</td>
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<td>into 3rd year medical school clerkship curricula</td>
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<td>Aileen E Zanoni*, Gracenzane Adamo, Christoph R Kaufmann and Richard</td>
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<td>E Hawkins; Uniformed Services University, Bethesda, USA</td>
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<td>1215-1230</td>
<td>Using scenario based teaching to deliver feedback on technical and</td>
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<td>R L Kneebone*, J Kidd, D Nestel, B Paraskeva, S Asvall and A Darzi;</td>
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<td>College School of Medicine, Imperial London, UK</td>
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<td>[Opening Discussant: Professor Paul Bradley]</td>
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### Students and Curriculum Evaluation

Chairperson: Professor Juan Perez-Gonzalez  
Room: Building 10, Room 1.0105 (Lower Ground Floor)

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<td>Teaching quality questionnaire: students’ evaluations of standard</td>
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<td>learning activities in an integrated curriculum</td>
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<td>Øyvind Ellingsen*, Kristin Wigen and Are Holen; Norwegian University</td>
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<td>of Science &amp; Technology, Trondheim, Norway</td>
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<td>1115-1130</td>
<td>The retrospective view - formative programme evaluation of preclinical</td>
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<td>courses by final year medical students</td>
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<td>C Schirlo*, W Vetter and P Groscurth; Studiendekanat der Medizinischen</td>
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<td>Fakultat, Zürich, Switzerland</td>
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<td>1130-1145</td>
<td>Students’ attitudes towards evaluation of teaching programmes - do</td>
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<td>they fib?</td>
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<td>Richard Phillips* and Alison Hooper; GKT School of Medicine, London, UK</td>
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<td>1145-1200</td>
<td>Student evaluation of educational quality: the construction of a</td>
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<td>Volkhard Fischer; Hannover Medical School, Germany</td>
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<td>1200-1215</td>
<td>Evaluation of lectures in medical teaching based on focal groups and</td>
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<td>Juan Cristóbal Maass*, Lorena Tapia, Marcela Jacard, and Teresa Millán;</td>
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<td>University of Chile, Santiago, Chile</td>
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<td>1215-1230</td>
<td>Use of a Continuous Quality Improvement (CQI) model to enhance</td>
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<td>curriculum evaluation and integration</td>
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<td>Nehad El-Sawi; University of Health Sciences, Kansas City, USA</td>
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1230-1245
7 New faculty-level self-evaluation instruments
K Lonka*, N Pajamä, T Hätönen, A Heikkilä, J Vainio and J Nieminen; University of Helsinki, Finland

1245-1300
8 The doctors’ opinion - a national evaluation of Swedish medical education
Anders Bengtsson, Kerstin Johansson and Sara Engström*; Swedish Medical Association, Stockholm, Sweden

2L

Multiprofessional Education
Chairperson: Dr Anna Bukovinszky
Room: Teaching Building, Room 1.0107 (First Floor)

1100-1115
1 Interprofessional learning: the New Generation Project
Debra Humphris* and Chris Stephens*; University of Southampton, UK

1115-1130
2 “Walking in the moccasins of others”: reflections on a new initiative to bring the real world of the patient into the medical curriculum
Lyn Brown; University of Liverpool, UK

1130-1145
3 Multiprofessional education in health care ethics in Germany
Jochen Vollmann; Freie Universität Berlin, Germany

1145-1200
4 Dilemmas in resuscitation: nursing and medical students’ responses to ethical professional issues related to resuscitation of patients
C Edward*, J Crosby and P E Preece*; University of Dundee, UK

1200-1215
5 Promoting the use of clinical guidelines in Scotland
Bernice West* and Peter Wimpeyn*; Robert Gordon University, Aberdeen, UK

1215-1230
6 Can Neuropsychiatry training be successfully delivered in a multiprofessional setting?
Andrew Parkin* and Nisha Dogra; University of Leicester, UK

1230-1245
7 The CURATA Partnership: linking CHE to patient care
R L Thivierge*, M Labelle, M Beaulieu and L Bessette; University of Montreal, Canada

1245-1300
Discussion [Opening Discussant: Dr Janke Cohen-Schotanus]

2M

Student Support/Psychediatry and the Curriculum
Chairperson: Dr Jadwiga Mirecka
Room: Teaching Building, Room 1.0105 (First Floor)

1100-1115
1 An evaluation of student support systems at the Medical School at Queen’s University Belfast
Nicola Wilson, David McCluskey and Mairead Boohan*; Queen’s University of Belfast, Northern Ireland, UK
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<td>1115-1130</td>
<td><strong>Is student abuse a problem in our medical school?</strong></td>
<td>Ana Maida*, Alicia Vasquez, José Calderon, Viviana Herskovic, Marcela Jacard, Ana Pereira and Lars Widdel; University of Chile, Santiago, Chile</td>
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<tr>
<td>1130-1145</td>
<td><strong>First year medical nursing and pharmacy students’ approaches to study</strong></td>
<td>R J Lamdin* and I Martin; University of Auckland, New Zealand</td>
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<tr>
<td>1145-1200</td>
<td><strong>Changing medical students’ attitudes towards homosexuality</strong></td>
<td>Itzchak Levi* and Tivi Fischel; Sackler Medical School, Tel Aviv, Israel</td>
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<tr>
<td>1200-1215</td>
<td><strong>The attitudes to Psychiatry of first year medical students</strong></td>
<td>R K Day; University of Dundee, UK</td>
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<tr>
<td>1215-1230</td>
<td><strong>Psychology basic and applied knowledge</strong></td>
<td>Agnete Langagergaard* and Berit Eika; University of Aarhus, Denmark</td>
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<tr>
<td>1230-1300</td>
<td><strong>Discussion</strong></td>
<td>[Opening Discussant: Dr Jorgen Nystrup and Ms Mei-Ling Ball]</td>
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<td>1300-1400</td>
<td><strong>Lunch – self-service buffet in the Marquee</strong></td>
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<tr>
<td>1400-1600</td>
<td><strong>Session 3: Workshops</strong></td>
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</table>

Please see the Abstracts section pages 4.23 to 4.26 for details of these workshops. Attendance at Conference workshops is free of charge but you are asked to pre-register on the form included with the programme. Lists of participants who have pre-registered and places available will be posted by the registration desk.

**3/1 The roles of the teacher**
Organisers: Jennifer Laidlaw and Anne Hesketh, SCPMDE Education Development Unit, Dundee, UK
Room: Teaching Building, 1.0105 (1st floor)

**3/2 The quality of medical education and teaching – tema con variatione**
Organiser: Professor Peter Nippert, University of Muenster, Germany
Room: Teaching Building, 1.0107 (1st floor)

**3/3 From MD to academic teacher**
Organiser: Professor Reinhard Putz, University of Munich, Germany
Room: Building 10, Kursraum 5 (lower ground floor)

**3/4 Feedback and evaluation: essential activities in the learning process**
Organiser: Dr Charles D Puglia, MCP Hahnemann School of Medicine, Philadelphia, USA
Room: Teaching Building, 2.0101 (2nd floor)

**3/5 Best Evidence Medical Education: progress report**
Chairperson: Professor Ian Hart, BEME Collaboration. Contributions from representatives of BEME Topic Review Groups
Room: Teaching Building, Hörsaal 1 (ground floor)
3/6 East European Task Force
Chairperson: Professor Ioan Bocsan, Iuliu Hatieganu University of Medicine & Pharmacy, Romania
Room: Research Building, Besprechungsraum 2.0026 (2nd floor)

3/7 Making feedback during clerkships meaningful and effective: a workshop for students and teachers
Organiser: Dr Paul Hemmer, Uniformed Services University of the Health Sciences, Bethesda, USA
Room: Teaching Building, 2.0104 (2nd floor)

3/8 Concept mapping
Organiser: Dr Gonul Peker, Ege University School of Medicine, Bornova-Izmir, Turkey
Room: Teaching Building, Computer Room 2.0103 (2nd floor)

3/9 Effective student assessment: something old, something new
Organiser: Dr Geoff Norman, McMaster University Medical School, Hamilton, Canada
Room: Teaching Building 2.0102 (2nd floor)

3/10 A bachelor-master structure of medical education in Europe?
Organisers: Professor Olle ten Cate, University Medical Centre Utrecht and Professor Herman van Rossum, University of Groningen, Netherlands
Room: Teaching Building, Horsaal 2 (ground floor)

3/11 The assessment of poorly performing doctors: experiences from the first three years of the Performance Procedures within the UK General Medical Council
Organisers: Professor Lesley Southgate, University College London Medical School, and Dr Peter McCrone, St George’s Hospital Medical School, London UK
Room: Building 10, Kursaal 6 (lower ground floor)

3/12 What can a general medical journal do for education in medicine?
Sandy Goldbeck-Wood and Dr Ed Peile, University of Oxford, UK
Room: Teaching Building, Horsaal 3 (ground floor)

Coffee served in the foyers of the Teaching and Research Buildings

1600-1615

1615-1715

AMEE General Assembly
(Non-members of AMEE are also welcome to attend this business meeting of the Association)
Room: Teaching Building, Horsaal 1 (ground floor)

1930-2300

River Cruise with buffet and entertainment
(Optional – not included in Conference registration fee – please see page 3.2 for details)

1930 til late

Alternative evening for students only!
Dinner and entertainment in the “Lecture Hall Ruin” (see page 3.2 for details)
Tuesday 4 September

0800-1715
Registration Desk open

0830-1030
Session 4: Large Group Sessions

**Standards and professionalism in medical education**

Chairperson: Professor Ian Hart, Canada  
Room: Teaching Building, Hörsaal 1 (ground floor)

4A

0830 4A/1 Attempto! Instilling mindful teaching  
Dr Maria Lamberding-Köppel, University of Tubingen, Germany

0855 4A/2 Who is afraid of the didactic wolf? A plea for professionalism in medical education and specialist training  
Professor Rein Zwierstra, University of Groningen, Netherlands

0920 4A/3 What’s good about ‘Best Evidence Medical Education’ (BEME)  
Professor Ralph Bloch, Institute for Medical Education, University of Bern, Switzerland

0945 Discussion

**International aspects of standards**

Chairperson: Professor Ronald Harden, UK  
Room: Teaching Building, Horsaal 2 (ground floor)

4B

0830 4B/1 The challenge of developing international standards in medical education  
Dr Andrzej Wojtczak, Institute for International Medical Education, New York, USA, and Dr M Roy Schwarz, China Medical Board of New York

0855 4B/2 Globalisation of medical education: the concept of international standards  
Dr Hans Karle, World Federation for Medical Education, Copenhagen, Denmark

0920 Discussion
Standards and the curriculum

Chairperson: Professor Herman van Rossum, Netherlands
Room: Teaching Building, Hörsaal 3 (ground floor)

0830 4C/1 Learning can be fun! The student’s experience of standards in a new curriculum
Anke Neuwirth and Johannes Meter, 2nd year students in the Reformed Medical Curriculum, Charité, Medical Faculty of the Humboldt-University, Berlin, Germany

0855 4C/2 The advantages of longitudinal evaluation of the medical curriculum
Professor Reinhard Pabst, Medical School of Hannover, Germany

0920 4C/3 Standards and assessment
Professor Miriam Friedman Ben-David, University of Dundee, UK

0945 Discussion

1030-1100 Coffee served in the foyers of the Teaching and Research Buildings

1100-1130 5A Session 5: Short Communications

13 simultaneous themed sessions on a range of topics:

Learning and the Internet

Chairperson: Professor Dieter Scheffner
Room: Teaching Building, Hörsaal 1 (Ground Floor)

1100-1115 1 The “dos and don’ts” of e-learning in medicine: experiences of a CD-ROM production
P Langkafel*, A Oehlsen, U Arnold and J W Dudenhausen; Humboldt University Berlin, Germany

1115-1130 2 Online guide to basic surgical skills: http://olc.chirurgie-goettingen.de
S Koenig*, P Wagner, D Zeiss, P M Markus and H Becker; Georg-August-University Goettingen, Germany

1130-1145 3 Standards for an international distributed online case repository
Chris Candler*, Colin Melville and Dave Collins; University of Oklahoma, Oklahoma City, USA

1145-1200 4 Digital study of medicine
U Arnold*, P Langkafel, L Peppel, I Reisinger and J W Dudenhausen; Humboldt University Berlin, Germany

1200-1215 5 Electronic learning objects and resource discovery
David A Davies; University of Birmingham, UK
6 Filling a curriculum map with Reusable Learning Objects
N K McManus *, R M Harden, D Davidson, S Khogali and J M Laidlaw; SCPMDE Education Development Unit, Dundee, UK

Discussion [Opening Discussant: Professor Ralph Bloch]

Evaluation of Problem-based Learning

Chairperson: Professor Reinhard Pabst
Room: Teaching Building, Hörsaal 2 (Ground Floor)

1100-1115
1 Changing to PBL: does it have an effect on junior doctors’ conceptualisation of communication skills?
P A O’Neill*, S C Willis and A Jones; University of Manchester, UK

1115-1130
2 How do medical students characterize good problem-based learning (PBL) tutoring after a year’s experience?
Gillian Maudsley; University of Liverpool, UK

1130-1145
3 Predicting outcome by behaviour in PBL groups?
Kristin Wigen*, Are Holen, Øyvind Ellingsen and Hansjorg Hohr; Norwegian University of Technology and Science, Trondheim, Norway

1145-1200
4 Student evaluation of a problem-based learning module into an occupational therapy course
Deirdre Connolly* and Morag Donovan; Trinity College Dublin, Dun Laoghaire, Ireland

1200-1215
5 Evaluation of student performance in the problem based learning (PBL) group
David C M Taylor, The Physiological Laboratory, University of Liverpool, Crown Street, Liverpool L69 3BX, UK

1215-1230
6 Influence of tutor qualification on test achievement and student evaluation in a problem-based course of basic pharmacology
J Matthes*, B Marxen, R-M Linke, W Anteöpl, W Lehmacher and S Herzig; University of Cologne, Germany

1230-1245
7 Individual perceptions of group learning and functioning in a problem-based learning programme
Janet MacDonald; University of Wales College of Medicine, Cardiff, UK

1245-1300 Discussion [Opening Discussant: Dr Jacques Des Marchais]
**Curriculum Evaluation**

Chairperson: Dr Kirsti Lonka  
Room: Teaching Building, Hörsaal 3 (Ground Floor)

1. 1100-1115  
   **A course programme evaluation: contribution of students’ self-evaluation**  
   Carlota Saldanha*, Jorge Lima and Joao Martins-Silva; Institute of Biochemistry, University of Lisbon, PORTUGAL

2. 1115-1130  
   **A national evaluation of the reforms to higher specialist training in the UK: methodological issues**  
   Janet Grant*, Rodney Gale, Mairead Beirne and Heather Owen; Open University Centre for Education in Medicine, Milton Keynes, UK

3. 1130-1145  
   **Evaluation of PME courses in General Practice in Germany**  
   S Wibhm*, R Jahromi, S Krause and B Hemming; Heinrich-Heine University, Duesseldorf, Germany

4. 1145-1200  
   **The Matrix: a visual presentation of registrar term evaluation**  
   Richard Tarala and Alistair Vickery; Royal Perth Hospital, Australia

5. 1200-1215  
   **Site visits as a method to assess the educational quality of clerkships**  
   Janke Cohen-Schotanus* and Rein P Zwieterstra; University of Groningen, Netherlands

6. 1215-1230  
   **Impact of a new curriculum on the clinical competence of medical students at the University of Barcelona Medical School (UBMS)**  
   Ramon Pujol*, Frederic Manresa, Francesc Guiral, Eduard Kranfley, Josep Ma Martinez Carsetera; University of Barcelona, Spain

7. 1230-1245  
   **Lessons learnt in designing and implementing a curriculum evaluation**  
   Helen Graham* and Mary Seabrook; GKT School of Medicine, London, UK

**Discussion**  
[Opening Discussant: Professor Geoff Norman and Ms Susanne Pruskil]

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**Assessing Communication Skills/Patients as Examiners**

Chairperson: Dr Andre de Champlain  
Room: Research Building, Hörsaal 4 (Ground Floor)

1. 1100-1115  
   **Detecting rater bias on a measure of spoken English proficiency**  
   Marta van Zanten*, Danette McKinley, John Boulet and Gerald Whelan; ECFMG, Philadelphia, USA

2. 1115-1130  
   **Comparison of communication skills in residency with performance on ECFMG Clinical Skills Assessment**  
   W Bardick*, J Boulet, S Peitzman, G Whelan and D Brody; ECFMG, Philadelphia, USA

3. 1130-1145  
   **ACT: a new computer-assisted assessment (CAA) method for communication-skills of medical students**  
   R L Huism* and J D Donnison-Speijer; Academic Medical Centre, Amsterdam, Netherlands
1145-1200  
4 How accurate is lay person assessment of clinical competence of student doctors? Comparison of the assessment of medical students by Faculty and Standardized Patients during the Objective Structured Clinical Examination  
P Heasman*, K Pitkala and N Paganus; University of Helsinki, Finland

1200-1215  
5 Do Simulated Patients grade inter-personal skills as well as Faculty?  
A S Arora*, N Natt, S Kluck and R Tjeks; Mayo Foundation, Rochester, USA

1215-1230  
6 The contribution of non medical assessors to the assessment of poorly performing doctors  
Lesley Southgate* and Peter McCrorie; University College London Medical School, London, UK

1230-1245  
7 Assessment in the elective clinical rotation: centrally reviewed case reports  
W M Molenaar*, S A Koopmans, M D Talsma and L H van Essen: University of Groningen, Netherlands

1245-1300  
Discussion [Opening Discussant: Dr Wolfram Antepohl]
Assessment
Chairperson: Dr Robert Galbraith
Room: Teaching Building, Mikroscopierraum (First Floor)

1100-1115 1 Objective Structured Preclinical Exams (OSPE): a new test format of summative student assessment in the Problem-Based Learning (PBL) curriculum at the Faculty of Medicine of the University of Bern
Barbara Stadelmann*, R Hofer, Urs Brodbeck and Ava Tekian; University of Bern, Switzerland

1115-1130 2 The quality of an extended-matching multiple choice examination

1130-1145 3 Evaluation of a five-dimensional assessment strategy within a problem-based learning medical curriculum
Paul Julian*, Scott Reeves* and Alistair Lamb*; Barts & The London School of Medicine & Dentistry, London, UK

1145-1200 4 A preclinical exam to assess the networked structure of knowledge on basic science in the Universidad Nacional de Cuyo (Argentina)
Ana María Reta*, Maria del Carmen Montbrun and María José López; Universidad Nacional de Cuyo, Mendoza, Argentina

1200-1215 5 Predictive value for academic performance of two assessment devices applied to medical students
Ma Eugenia Ponce de León C*, Armando Ortiz and M del Carmen Ruiz Alcocer; National Autonomous University of Mexico, Mexico

1215-1230 6 Self-assessed clinical skills levels of newly graduated physicians in relation to an intended curriculum
A M Moercke* and B Eika; University of Aarhus, Denmark

1230-1245 7 The dynamics of knowledge structure of graduating medical students based on results of the Medical Licensing Examination
M Mrouga*, Y Bogachkov and L Artemchuk; Testing Board, Kyiv, UKRAINE

1245-1300 Discussion [Opening Discussant: Professor John Cookson]

Outcome-based Education
Chairperson: Dr Jordan Cohen
Room: Teaching Building, Room 2.0102 (Second Floor)

1100-1115 1 The Scottish Learning Outcomes Project Phase II - Assessment: "the proof of the pudding"
Jacqueline Furnace* and John Simpson*, on behalf of Scottish Deans' Medical Curriculum Group; University of Aberdeen, UK

1115-1130 2 Recent developments in an outcome-led curriculum
Nick Ross; University of Birmingham, UK
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 1130-1145    | A New Instrument of curriculum development: Curriculum as a function of professional outcomes  
I Bulakh*, Y Voronenko and I Filonchuk; Testing Board and National Medical University, Kyiv, Ukraine |
| 1145-1200    | Focusing on learning outcomes for the Preregistration House Officer (PRHO) year  
E A Hesketh* and M S Allan; Education Development Unit, Dundee, UK |
| 1200-1215    | The ACGME Outcome Project: a model resident assessment system  
Susan Swing; ACGME, Chicago, USA |
| 1215-1230    | Development of an outcome-based clinical curriculum at International Medical University (IMU), Malaysia  
J C Ramesh*, S Raman, M I Nurjahan, A Radhakrishnan, K H Ong, C M K Patrick and Q Akhtar; International Medical University, Selangor, Malaysia |
| 1230-1245    | An evaluation of the internal validity of specific learning outcomes in phase II of a revised undergraduate medical curriculum  
F J Cilliers* and E M Bitzer; University of Stellenbosch, Tygerberg, South Africa |
| 1245-1300    | [Opening Discussant: Professor Miriam Friedman] |

5H

Educational Strategies/Curriculum Planning

Chairperson: Professor G Gaedicke  
Room: Teaching Building, Room 2.0101 (Second Floor)

<table>
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<th>Time</th>
<th>Session</th>
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| 1100-1115    | Structural changes approaching medical education in The Netherlands  
Olle ThJ, ten Cate*, Herman J M van Rossum and Albert J J A Scherphier; Utrecht University, Netherlands |
| 1115-1130    | Implementation of PBL-Based Curriculum  
Maria Montbrun* and Enrique Guntche; Universidad Nacional de Cuyo, Mendoza, Argentina |
| 1130-1145    | An overview of the implementation of curriculum 2001 at Nelson R Mandela School of Medicine, University of Natal  
Veena Singaram*, Jacqueline van Wyk, Michelle McLean and Peter Olmesdahl; University of Natal, South Africa |
| 1145-1200    | Self-directed, self-organized case-based-learning in final year students  
Jana Junger, Christiane Roth, Stephan Zöpfel, Wolfgang Eich and Wolfgang Herzog; University of Heidelberg, Germany |
| 1200-1215    | Changing to ‘self-induced learning’ in a speech therapy department  
Martin Peleman; Arteveldehogeschool, Gent, Belgium |
| 1215-1230    | Student participation in the organization of education at a medical school - a comparison of two South African cases  
B G Lindeque and Pierre L Bredenkamp*; Stellenbosch University, Tygerberg, South Africa |
Preparing the way: encouraging clinical tutors to be co-producers in the learning process
Peter Barton* and Jillian Morrison; University of Glasgow, UK

1245-1300  Discussion  [Opening Discussant: Dr Peter McCrorie]

Educating the Educators
Chairperson: Professor Hywel Thomas
Room: Teaching Building, Room 2.0104 (Second Floor)

1100-1115  1 How to help clinical and multimedia staff develop joint programs
Eleanor Flynn; University of Melbourne, Australia

1115-1130  2 “Getting Started in Clinical Teaching” - a staff development initiative
J A Dent* and P E Freece; University of Dundee, UK

1130-1145  3 Governance in medical teaching: pilot study
Iain Robbé; University of Wales College of Medicine, Cardiff, UK

1145-1200  4 The role of an education unit in health professional education: proactive or responsive
Margaret Horsburgh* and Rain Lamdin; University of Auckland, New Zealand

1200-1215  5 Beyond teacher training; the construction of a faculty development strategy
Patricia Rosado Pinto* and Ramiro Avila; Faculty of Medical Sciences, Lisbon, Portugal

1215-1230  6 The profile of the perfect teaching professor
F Scheele*, J Th M van der Schoot and A J Goverde; St Lucas Andreas Hospital, Amsterdam, Netherlands

1230-1245  7 Evidence retrieval in medical education: obstructions and opportunities
Alex Haig; SCPMDE Education Development Unit, Dundee, UK

1245-1300  Discussion  [Opening Discussant: Dr John Nicholls]

Education and Cultural Diversity
Chairperson: Dr Brigitte Grether
Room: Building 10, Room 1.0107 (Lower Ground Floor)

1100-1115  1 The development and evaluation of a programme to teach cultural diversity to medical undergraduate students
Nisha Dogra; University of Leicester, UK

1115-1130  2 Aboriginal health: a tool in the process of reconciliation?
G Garvey* and I E Rolfe*; University of Newcastle, Callaghan, Australia
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<th>Time</th>
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<tr>
<td>1130-1145</td>
<td>3</td>
<td>Valuing diversity: The effectiveness of a roleplay workshop as part of a newly introduced community based diversity module</td>
<td>Sue Conning*, Alison Hooper, Margot Tierner and Val Wass; GKT School of Medicine, London, UK</td>
</tr>
<tr>
<td>1145-1200</td>
<td>4</td>
<td>Using negative role models positively</td>
<td>S E Gull* and K H Matheson; Bury St Edmunds, UK</td>
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<td>1200-1215</td>
<td>5</td>
<td>What factors influence underrepresented minority (URM) students in their choice of medical schools?</td>
<td>Ara Tekian*, Laura Hruska and Mark Urosev; University of Illinois at Chicago, Chicago IL 60612, USA</td>
</tr>
<tr>
<td>1215-1230</td>
<td>6</td>
<td>Education for professionalism in medicine</td>
<td>Geoffrey Westwood* and Barbara Westwood; Bankstown Health Service, Australia</td>
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<tr>
<td>1230-1245</td>
<td>7</td>
<td>Characteristics of students admitted for the medical course at Faculty of Medicine of Ribeirao Preto, University of Sao Paulo, Brazil</td>
<td>A R L Cianflone*, M F A Colares, J F C Figueiredo, M L V Rodrigues and L E de A Troncon; Faculty of Medicine of Ribeirao Preto, Brazil</td>
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<td>1245-1300</td>
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<td>Discussion</td>
<td>[Opening Discussant: Dr Angel Centeno]</td>
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**5K**

**Contexts for Learning**

Chairperson: Dr Abdulwahab Telmesani  
Room: Building 10, Room 1.0105 (Lower Ground Floor)

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<tr>
<td>1100-1115</td>
<td>1</td>
<td>Clinical education in the health care professions: a critical analysis of the literature</td>
<td>Alison Rushton; Coventry University, UK</td>
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<td>1115-1130</td>
<td>2</td>
<td>“Contracts for Learning”: project to improve the quality of attachments at a District General Hospital</td>
<td>Richard Ayres*, Henry Averns and Lin Sanders; Northern Devon Healthcare Trust, Barnstaple, UK</td>
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<tr>
<td>1130-1145</td>
<td>3</td>
<td>Does the dedicated teaching environment in ambulatory care improve acquisition of learning outcomes?</td>
<td>Clare I L Stewart*, Paul E Preece and John A Dent; University of Dundee, UK</td>
</tr>
<tr>
<td>1145-1200</td>
<td>4</td>
<td>Could we improve on what patients our pediatrics students saw in outpatient clinics?</td>
<td>Pedro Herskovic*, Alicia Vasquez, Cristian Breinbauer, Patricia Gomez, Viviana Herskovic, Marcela Jacard, Claudio Missarelli and Erika Troncoso; University of Chile, Santiago, Chile</td>
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<td>1200-1215</td>
<td>5</td>
<td>Using the ward round for teaching and learning: how do junior doctors learn from consultants through ward-based teaching?</td>
<td>Alan Bleakley; Cornwall Postgraduate Education Centre, Truro, UK</td>
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<tr>
<td>1215-1230</td>
<td>6</td>
<td>Clinical skills training needs of final year medical students and PRHOs - A comparison</td>
<td>D MacLeod*, E Gill, J Gate and J Rees; University Hospital Aintree, Liverpool, UK</td>
</tr>
</tbody>
</table>
1230-1245 7 The impact of a precepted diabetic foot care program
Linda Z Nieman, Lewis E Foxhall*, Frank Sifuentes and Lee Cheng; University of Texas Houston Health Science Center, USA

1245-1300 Discussion [Opening Discussant: Professor Amanda Howe]

Evaluation of Multiprofessional Education
Chairperson: Dr Pia Forsberg
Room: Teaching Building, Room 1.0107 (First Floor)

1100-1115 1 The benefits of a multiprofessional education programme can be sustained
G J Mires*, F L R Williams, R M Harden and P W Howie; University of Dundee, UK

1115-1130 2 Self-directed multiprofessional continuing medical education with facilitators: an experiment in four European countries. The Belgian story
J Goedheurs*, C Geens, N Mathers, K Billingham, G Maso and O Solas-Gaspard; Catholic University Leuven, Belgium

1130-1145 3 Interprofessional education in a clinical and non-clinical environment: Teachers’ and learners’ perspectives
John Jenkins and Sue Morison*; Queen's University Belfast, UK

1145-1200 4 Interprofessional education: experiences of students
J Agsteribbe*, R M H Schaub and J Cohen-Schotanus; University of Groningen, Netherlands

1200-1215 5 “Capturing the learning”: the development of interprofessional education in the Faculty of Medicine, Health and Biological Sciences, University of Southampton
D Humpris* and S Colly; University of Southampton, UK

1215-1230 6 Learning interprofessionally: a review of experiences
A Le May*, F Kitsell, I Giles and C Stephens; University of Southampton, UK

1230-1245 Discussion [Opening Discussant: Dr Gary Mires]

Teaching about EBM, Critical Thinking and Research
Chairperson: Professor Florian Eitel
Room: Teaching Building, Room 1.0105 (First Floor)

1100-1115 1 Questions as the key to knowledge: teaching medical students in Evidence-Based Medicine
Jonna Skov Madsen*, Brigitta Wallstedt, Carl Joakim Brandt and Mogens Horder; Odense University Hospital, Denmark

1115-1130 2 Teaching Evidence-Based Medicine to healthcare professionals: implementing and evaluating the programme
C Osomanya*, K Osomanya and E Burke; University of London, UK
Impact of a short interactive curriculum on medical students' appreciation of EBM and CAM
Samuel N Forjuoh*, Robert A Henry, Terry G Rascoe, Barb Symm and Janine C Edwards; Texas A & M University, Temple, USA

Annual Students-Congress of Medicine (SCM): a tool for scientific education in the medical curriculum
E J M van Gils*, M H J Maathuis, G J Navis and R H Henning; University of Groningen, Netherlands

What do medical graduates think about their earlier research projects now?
Saeed Asefzadeh; Qazvin University of Medical Sciences, Iran

Research and the use of computers in the new curriculum of the University of Vienna Medical School
Richard Marz* and Robert Trapp; University of Vienna, Austria

Experimental courses in Biochemistry - initiation to scientific research in undergraduate medicine
Carlota Saldanha*, Rui Mesquita and J Martins-Silva; University of Lisbon, Portugal

Discussion [Opening Discussant: Dr Sharon Krackov]

Lunch in the Marquee

Session 6: Workshops

Please see the Abstracts section pages 4.51 to 4.55 for details of these workshops. Attendance at Conference workshops is free of charge but you are asked to pre-register on the form included with the programme. Lists of participants who have pre-registered and places available will be posted by the registration desk.

Note: coffee will be available between 1530-1600 hrs in the foyers of the Teaching and Research Buildings

6/1 Basic Skills Faculty Development Workshop
Dr Anita Dahl Glickson, University of Colorado School of Medicine, Denver, USA
Room: Building 10, Kursraum 6 (lower ground floor)

6/2 An Introduction to Clinical Judgment Analysis
Dr Anthony LaDuca, National Board of Medical Examiners, Philadelphia, USA
Room: Teaching Building, Computer Room, 2.0103 (2nd floor)

6/3 Nordic Federation for Medical Education
Chairperson: Dr Eivind Oranje
Room: Teaching Building, Horsaal 1
Note: all participants welcome at the Plenary and the Workshop

Plenary (1400-1445): Reform in a Medical School – needed, wanted, possible?
Dr Kirsti Lonka, Director, Development and Research Unit, Faculty of Medicine, University of Helsinki/ Professor in Medical Education Karolinska Institutet, Sweden

Workshop (1500-1545): NFME and AMEE – do we need them both?
A discussion of the future role of NFME and possible co-operation with AMEE. The workshop will start with a closed debate among the panel followed by an open discussion.
Panel: Dr Jørgen Nystrup, Dr Dagfinn Øgreid (chair NFME), Dr Kirsti Lonka, Professor Jörgen Nordenström
Moderator: Eivind Drange

Closed meeting (1600-1700): Extraordinary General Assembly, NFME

6/4 Bedside Cardiology Skills Training, featuring “Harvey”, The Cardiology Patient Simulator and the UMedic Computer System
Organisers: Dr Michael S. Gordon, University of Miami School of Medicine, and Dr Joel M Feher, Emory University School of Medicine, USA
Room: Teaching Building, 2.0101 (2nd floor)

6/5 Risk management in medical education
Directors of Research in Postgraduate Medical Education Group
Organisers: Dr Kwee Matheson, West Suffolk Hospital, UK, Dr Alistair Thomson and Dr Andrew Long
Room: Teaching Building, 1.0105 (1st floor)

6/6 The professional and organisational culture of medical education – an exploratory workshop in the context of an interactive exhibition
Organisers: Dr Elizabeth Krajic Kachur, Medical Education Development, New York, USA, Dr Nobaturo Ban and Hannah Kedar
Room: Research Building Horsaal 4 (ground floor)
The exhibition linked to this workshop will be set up in Research Building, 1.0020 1st floor

6/7 Students teaching communication skills
Organisers: Students from Charité, Humboldt-University of Berlin, Germany
Room: Building 8, Seminarraum 2 (1st floor)

6/8 Developing professional attitudes: theory, practice and evaluation
Organiser: Professor Amanda Howe, University of East Anglia, UK
Room: Teaching Building, 1.0107 (1st floor)

6/9 AMEE/IberoAmerican Network
Chairperson: Professor Margarita Barón-Maldonado, AMEE
Room: Teaching Building, Hörsaal 3 (ground floor)

6/10 Problem-based Learning
Organisers: Dr Stewart Mennin and Dr Scott Obenshain, University of New Mexico, Albuquerque, USA
Room: Teaching Building, 2.0102 (2nd floor)
6/11 Portfolio as a Method of Student Assessment
Organiser: Dr Miriam Friedman Ben-David, University of Dundee, UK
Room: Teaching Building, 2.0104 (2nd floor)

6/12 Learning Needs Assessment in undergraduate and postgraduate medical education
Organiser: Professor Janet Grant, Open University, UK
Room: Building 10, Kursraum 5 (lower ground floor)

6/13 A European core curriculum?
Organiser: Professor Lemart Bouman, Netherlands
Room: Teaching Building, Hörsaal 2 (ground floor)

1930-2230 Gala Dinner at the Aquarium (Zoologischer Garten Aquarium)
(Not included in the registration fee – see page X for details)
Wednesday 5 September

0830-1000

Session 7: Poster presentations

12 simultaneous themed sessions. Please meet in the rooms listed below. Participants each have two minutes to introduce themselves and their posters. The groups will then move to the poster location where a discussion will take place.

New Learning Technologies

Chairperson: DrNick Ross
Meet in: Teaching Building, Hörsaal 1 (ground floor)
Poster location: Teaching Building, 2nd floor

7A1 An International web-based Master’s degree in Primary Care
Peter Toon* and Trish Greenhalgh; University College London, UK

7A2 Can practical courses on interpreting blood smears be substituted by an interactive, web-based learning programme?
U Wöermann*, A Tobler and M Montandon; University of Bern, SWITZERLAND

7A3 The management of student feedback using the World Wide Web
Stephanie Cobb* and Helen Graham; Guy’s, King’s and St Thomas’ School of Medicine, London, UK

7A4 Web-based student feedback on large group teaching: how does it compare with traditional paper methods?
Helen Graham* and Stephanie Cobb; Guy’s, King’s and St Thomas’ School of Medicine, London, UK

7A5 Reflection on experiences by using trigger movies
Marianne G Nijneis*, Caro Brumsen, Jan H Bolk and Peter G M de Jong; Leiden University Medical Center, Leiden, NETHERLANDS

7A6 Provision of IT learning facilities for healthcare education
C Osmunaya*, K Osmunaya and E Burke; University of London, UK

7A7 Development and evaluation of an interactive Computer Assisted Learning (CAL) programme on vaginal hysterectomy
Vikram Jha*, Shelley Widdowson, Sean Duffy and Keith Allenby; St James’s University Hospital, Leeds, UK

7A8 Links from ultrasound to anatomy - how is a multimedia teacher accepted?
Dietmar Borchert*, Gunnar Schley, Edda Klotz, Peter Rauh, Clemens Reisinger and Thomas Medveczky; Humboldt-University of Berlin, GERMANY

7A9 Development of a Computer-Based Simulation; the Dynamic Patient Simulator
S Eggermont*, P M Bloemendaal, J M van Baalen, E M Schoonderwaldt; Leiden University Medical Center, NETHERLANDS
7A10  Introduction of laptop computers in Leiden Medical School
Peter G M de Jong*, Hermette E Idenburg and Henk L Hendrix; Leiden University Medical Center LUMC, Leiden, NETHERLANDS

7B  Problem-based Learning

Chairperson: Dr Stewart Mennin
Meet in: Teaching Building, Hörsaal 2 (ground floor)
Poster location: Teaching Building, 2nd floor

7B1  Measuring success: partnership in evaluation (work in progress report)
P O’Neill, D Graham, A Garden, S. Watmough*, J Brown; Universities of Liverpool, Manchester and Mersey Deanery, UK

7B2  A new PBL course with an examination with standardised patients at the end
S Scheue*, C Mueller and R Putz; Ludwig-Maximilians-Universitat, Munich, GERMANY

7B3  Training the Problem-Based Learning tutor: implementation issues
C Osomaya*, K Osomaya and E Burke; University of London, UK

7B4  PBL in Psychiatry - the Holocaust. A unique experience
T Fischel*, T Weizman and G Zalsman; Geha Psychiatric Center, Ramat Gan, ISRAEL

7B5  Clinical skills of medical students participating in lecture-based versus problem-oriented training
W Rimpau; Par-Klinik Weissensee, Berlin, GERMANY

7B6  Systematic observations of problem-based study groups - what do they reveal?
K Lonka*, P Sauri and N Paganus; University of Helsinki, FINLAND

7B7  “Pathomechanisms” - a 9-week integrative and problem-based learning oriented course within the 3rd year of the curriculum at the Medical Faculty Carl Gustav Carus, Technical University Dresden
Oliver Tiebel*, Ines Nitsche and Andreas Deussen for the Core Planning Group; Medical Faculty, Carl Gustav Carus, Technical University, Dresden, GERMANY

7B8  Characteristics of tutors’ assessment by students when PBL is being implemented
Yolanda Marin-Campos* and Marcela Lopez-Cabrera; National Autonomous University of Mexico, MEXICO

7B9  From traditional teachers to PBL tutors: how to start the change?
Yolanda Marin-Campos* and Lizbeth Mendoza-Morales; National Autonomous University of Mexico, MEXICO

7B10  Development of a problem-based curriculum leads to enhancement in faculty development - The Dresden experience
N Lorenz*, T Aretz, E Armstrong and the Harvard-Dresden Medical Education Alliance; Technical University, Dresden, GERMANY
7B11 An orientation programme for 1st year students in a problem-orientated MBChB curriculum - the Pretoria experience
Pierre L Bredenkamp; Stellenbosch University, Tygerberg, SOUTH AFRICA

Curriculum Planning and Change

Chairperson: Dr Reg Dennick
Meet in: Teaching Building, Hörsaal 3 (ground floor)
Poster location: Teaching Building, 2nd floor

7C1 A model of curriculum management in an integrated medical curriculum
Gregory J S Tan* and B E Mustaffa; International Medical University, Kuala Lumpur, MALAYSIA

7C2 The University of Rochester’s Double Helix Curriculum
Elaine F Dannefer; University of Rochester Medical Center, Rochester, USA

7C3 Academic administration and mixed programmes
S Sharma Khanal* and S Koirla; B P Koirla Institute, Dharan, NEPAL

7C4 Learning responsibly - implementing written guidelines for medical students
Richard Phillips*, Ann Wylie and Anne Stephenson; Guy’s, King’s & St Thomas’ Medical School, London, UK

7C5 HEICUMED - a novel approach to student medical education at the Medical Faculty of the University of Heidelberg, Germany
Hubert J Bardenhauer* on behalf of the HEICUMED Group; University of Heidelberg, GERMANY

7C6 Enhancing curriculum renewal through a “clinical presentation” approach to undergraduate medical education
Nehad El-Sawi; University of Health Sciences, Kansas City, USA

7C7 Continuous training in General Practice as an integral part of an undergraduate medical curriculum - the Witten/Herdecke Model (Germany)
W Kanstmann*; Dieter Wollgarten, René Vollenbroich and Markus Gschwind; University of Witten/Herdecke, Witten, GERMANY

7C8 Developing sense of ownership for curriculum changes within all teaching faculty of an Asian medical school
C B Hazlett*, T F Fok, S S C Chung and J C Y Cheng; Chinese University of Hong Kong, Shatin, HONG KONG

7C9 Sci45: Framework for the implementation of a career guidance instrument
Janet Grant*; Rodney Gale, Mairead Beirne and Heather Owen; Open University Centre for Education in Medicine, MILTON KEYNES, UK

7C10 The facilitation process in a problem-based curriculum at the Nelson R. Mandela School of Medicine
Jacqueline van Wyk, Peter Olmesdahl, Veena Singaram* and Michelle McLean; University of Natal, Durban, SOUTH AFRICA
**Curriculum Evaluation/Staff Development**

Chairperson: Professor Miriam Friedman  
Meet in: Research Building, Hörsaal 4 (ground floor)  
Poster location: Teaching Building, 1st floor

**7D1 Students’ feedback: a Public Health course in medical education**  
Eva Rasky*, Wolfgang Freidl; Willibald-Julius Strondegger; Karl-Franzens-University, Graz, AUSTRIA

**7D2 Action Research Methodology: a possible framework for course evaluations**  
Alison Rushton* and Gill James; Coventry University, Coventry, UK

**7D3 The opinion of the graduates of the Faculty of Medicine of the University of Barcelona on the new medical curriculum**  
J Palés*, A Guàl, A Vallés, Ma T Estrach, F Climent, X Gasull, R Gilabert, A Llobet, Y Compta, L Peri and J A Bomí; Universitat de Barcelona, Barcelona, SPAIN

**7D4 Comenius University Quality Assurance System (CUQAS) and students’ participation in graduate medical education evaluation**  
L Planik*, J Danko, E Rozborilova, P Galajda and K Doku; Jessenius Faculty of Medicine, Martin, SLOVAK REPUBLIC

**7D5 Research in medical education: constructing an ethical framework**  
E B Peile* and A Slowther; Dept of Primary Healthcare, University of Oxford, UK

**7D6 Students’ perceptions of the Physiology course in a traditional medical school**  
F Riggione*, J Perez-Ojeda and J F Perez-Gonzalez; Centro de Investigacion y Desarrollo de la Educacion Medica, El Hatillo 1083A, VENEZUELA

**7D7 Students’ perceptions of a traditional undergraduate course in Microbiology**  
Z Uzcategui*, J Perez-Ojeda and J F Perez-Gonzalez; Universidad Central de Venezuela, Caracas, VENEZUELA

**7D8 Faculty development in General Practice - the German experience**  
M Ehrhardt, P Engeser, M Herrmann, T Lichte, N Donner-Banzhoff and S Walin*, on behalf of the participants; Heinrich-Heine University, Duesseldorf, GERMANY

**7D9 Medicine and ethnic issues; do our tutors reflect their community?**  
D Reeves, R Loudon and J Parle*; University of Birmingham, UK

**Postgraduate Education**

Chairperson: Dr Charlotte Ringsted  
Meet in: Building 10, Hörsaal 6 (ground floor)  
Poster location: Teaching Building, 2nd floor

**7E1 Exploring the views of basic surgical trainees on their training programme and their future in Surgery**  
Jeremy Brown*, Linda de Cossart and Charmian Wiltshire; Mersey Deanery, Liverpool, UK
**7E2** An assessment of the skills base and attainments of Senior House Officer on a regional Basic Surgical Training Programme
Linda de Cossart, Charmian Wiltshire and Jeremy Brown*; Mersey Deanery, Liverpool, UK

**7E3** Personal and professional development groups for Junior Hospital Doctors
Alan Naftalin and Peter Bruggen; Newham General Hospital, London, UK

**7E4** The educational needs of doctors with English as a second language when consulting in General Practice in the United Kingdom
Sylvia Chadley and John Skelton; West Midlands Dept of Postgraduate Education for General Practice, Birmingham, UK

**7E5** “No such thing as a free lunch”: how free are bleep-free sessions?
Jane Ross* and Rose Martin; Ninewells Hospital and Medical School, Dundee DD1 9SY, UK

**7E6** The SHO RITA and portfolio
Rose Martin* and R W Newton; Ninewells Hospital & Medical School, Dundee, UK

**7E7** General Practice Registrar audit and implementation of change
J McKay*, J R M Lough and T S Murray; University of Glasgow, UK

**7E8** The Senior Registrar - a new development in higher professional training in General Practice
C T O’Dubhghalll; NUI Galway, Co Galway, IRELAND

**7E9** Psychosocial training in the Family Residency in Spain: present situation and proposals for the future
José Ramón Louyssa Lara; Servicio Navarro de Salud, Noain, SPAIN

**7E10** Step by step to methodological exam; report on first year experiences with the new introduced GP Licence Examination in Austria
R Willnauer*, M Schmidts, M Lischka; University of Vienna, Wien, AUSTRIA

**7E11** Development of professional doctorates in healthcare disciplines
Alan Castle*, Graham A Mills and Valda Bunker; University of Portsmouth, Portsmouth, UK

**7E12** The appointment process for Anaesthetic Registrars in South Thames
J Clarke* and J Pateman; St George’s Hospital London, UK

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**Assessment**

Chairperson: Dr William Burdick
Meet in: Teaching Building, Mikrospopierraum (1st floor)
Poster location: Teaching Building, 1st floor

**7F1** Validity of assessment techniques: students’ views differ from observed outcomes
W Colin Duncan; University of Edinburgh, Edinburgh, UK
7F2  Assessment reliability in an MSc programme in Diabetes
J Haber*, N Manro, A Felton, C Parker, P Delaney and C McIntosh; University of Surrey Roehampton and Chelsea & Westminster Hospital, London, UK

7F3  Two years of progress-testing at the Charité
A Mertens*, J Hoffmann, S Köbel, R Raschke, K Deuske, J Berger and U Hennewig; HU Berlin Medical Faculty, Berlin, GERMANY

7F4  OSCE for Paediatric trainee internship examination multicentric experience
M Aldunate, A López, A Menu, M Varas, X Triviño, A Vasquez*, R Lillo, T Miranda and E Mandiola; University of Chile, Santiago, CHILE

7F5  Third year medical student written history and physicals: how many is enough?
Paul A Hemmer*, Thomas Jamieson, Kim Gibson, Lisa Moores, Andy Donato, Margaret Gaglione, Steven Durning, Alan Wimmer, Bonnie Cary-Freitas and Louis Pangaro; Uniformed Services University, Bethesda, USA

7F6  Student fitness to practise procedures
Chris Stephens; University of Southampton, UK

7F7  Deriving the assessment framework for the Three Royal Colleges Diploma in Prison Medicine
Lesley J Southgate*, Jon H Fuller and Jaz Bihka; University College Medical School London, London, UK

7F8  Assessment in an outcome-based curriculum at the International Medical University (IMU), Malaysia
J C Ramesh*, S Raman, M I Narajan, A Radhakrishnan, K H Ong, C M K Patrick and AKH Wong; International Medical University, Selangor, MALAYSIA

7F9  Psychosocial profile of medical students as a predictor of the academic success in medical school in Mexico
Adelina Alcorta-G*, Mohammadreza Hojat, Jesus Aner-R, Victoria Bermudez, Juan Montes-V, Santos Guzman, A-Enrique Alcorta-G and Marcos Vinicio; Autonomous University of Nuevo Leon, Monterrey, MEXICO

7F10  Psychometric data for Jefferson Medical College's non-cognitive questionnaire in Mexican medical students
Adelina Alcorta-G*, Mohammadreza Hojat, Jesus Aner-R, Victoria Bermudez, Juan Montes-V, Santos Guzman, A-Enrique Alcorta-G and Marcos Vinicio; Autonomous University of Nuevo Leon, Monterrey, MEXICO

7F11  Portfolio based assessment of students during their internship
Angel M Centeno*, Soledad Campos, Isabel Fernández and Alfredo Olivieri; Universidad Austral, Buenos Aires, ARGENTINA

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7G  Teaching & Learning 1

Chairperson:  Mr John Dent
Meet in:  Teaching Building, Room 2.0102 (2nd floor)
Poster location:  Teaching Building, 2nd floor

7G1  What do first year medical students value in a learning situation?
Angel M Centeno*, Alejandra Blanco, Soledad Campos and Amelia Cabrera; Universidad Austral, Buenos Aires, ARGENTINA
7G2 Application of Schon’s model for small-group teaching
Francine Borduas* and Réjean Laprise; Association des médecins omnipraticiens de Québec, Québec, CANADA

7G3 Teaching and learning about case presentations; the need for early intervention
D Nestel* and J Kidd; Imperial College School of Medicine, London, UK

7G4 Master teacher, master learner
M P Oosthuizen; University of Pretoria, Pretoria, SOUTH AFRICA

7G5 Hemisphericity in medical students
N E Fernandez-Garza*, I A Benitez-Trejo, C Salinas-Guerra, A Davila-Flores and J A Castellanos-Lopez; Autonomous University of Nuevo Leon, Monterrey, MEXICO

7G6 Medical student preferences for an “ideal textbook” of Obstetrics and Gynaecology
M S Marsh* and D Katopis; GKT Medical School, London, UK

7G7 What can be learnt from medical atlases? Expert and novice visual schemata in breast sonography
R Pauli* and J Huber; University of Surrey Roehampton, London, UK

7G8 Community-based Public Health Education in Healthy City Project
Yosuke Yamane*, Kuninori Shiwaku, Keiko Kitashima and Anuuraad Erdenbileg; Shimane Medical University, Izumo, JAPAN

7G9 Two different types of professor authority, results in a traditional faculty of medicine
Carlos E. de la Garza-Gonzalez*, Norberto Lopez-Serna and Ma Esthela Morales-Perez; Autonomous University of Nuevo Leon, Monterrey, MEXICO

7G10 The “excellent teacher” seen by mid-course students
M Patrício, A V Carneiro e J Fernandes e Fernandes; University of Lisbon, Lisbon, PORTUGAL

7G11 Underrepresented minority (URM) students’ perception of mentoring, advising and role modelling in medical school
Ana Tekian*, Laura Hruska and Jorge Girotti; University of Illinois at Chicago, Chicago, USA

Teaching & Learning 2
Chairperson: Dr Richard Ayres
Meet in: Teaching Building, Room 2.0101 (2nd floor)
Poster location: Teaching Building, 2nd floor

7H1 “Project Carrapato (‘tick’): a psychological focus in medical training
I R P Scavariello, M S V M Silveira, E H V Celeri*, S L Brenelli and R S Cassorla; UNICAMP, Sao Paulo, BRAZIL

7H2 Evaluating of videotape sessions for learning communication skills
A Noguera*, M Bernaus, X Claries and J de Nadal; Universitari Parc Tauli, Barcelona, SPAIN
7H3 Acting up? The recruitment and maintenance of a professional role play team for undergraduate and postgraduate medical training and assessment
C M Wiskin* and P Croft; The University of Birmingham, Birmingham, UK

7H4 Analysis of clinical competence at pre-graduate level
Gitte Wichmann-Hansen* and Berit Eika; Aarhus University, Aarhus, DENMARK

7H5 Use of paper-cases in undergraduate clinical Dermatology education in Germany
A Boer*, R Kaufmann, W H Boehnke and F Ochsendorf; Universitäts-Hautklinik Frankfurt/M, Frankfurt am Main, GERMANY

7H6 Development of a Learning Resource Centre for healthcare professionals: an example of an innovative enterprise
C Osornaya*, K Osornaya and E Burke; University of London, London, UK

7H7 Legal theories of recourse for failed medical students in the United States
Thomas Jamieson; Uniformed Services University of the Health Sciences, Bethesda, USA

7H8 An evaluation of organising student participation in curriculum reform using a mentoring programme at the Nelson R Mandela School of Medicine, University of Natal, Durban, South Africa
Dorothy Appalasamy, Michelle McLean* and Jacqueline van Wyk; University of Natal, Durban, South Africa

7H9 Medical education – more than learning?
Thomas Eichholz and Catharina Crolow; Charité, Humboldt University Berlin, Germany

Continuing Professional Development 1
Chairperson: Dr Richard Smith
Meet in: Teaching Building, 2.0104 (2nd floor)
Poster location: Teaching Building, 1st floor

7I1 The roles of hospital consultants: more than just patients and students
Patsy Stark; University of Leeds, Leeds, UK

7I2 Continuing medical education X indexation? Authors’ opinions about editorial policies of a Brazilian academic journal
Maria de Lourdes Verones Rodrigues*, Valderez Aparecida Coelho Falaschi and Julio Cesar Voltarelli; Faculdade de Medicina de Ribeirao Preto, Ribeirao Preto, BRAZIL

7I3 Learning HSR by doing: forming parallel learning groups
Saeed Asefzadeh; Qazvin University of Medical Science & Health Services, Qazvin, IRAN

7I4 Towards a flexible workforce - a basis for change
F French*, M Awramenko, A Scott, L Ubach, L Leighton-Beck, G Needham, J Mollison and H Coutts; SCPMDE, Aberdeen, UK
Continuing Professional Development 2

Chairperson: Dr Alistair Thomson
Meet in: Building 10, Room Kursraum 5 (Lower ground floor)
Poster location: Teaching Building, 1st floor

7J1 Sharing visions: working with CPD coordinators in General Practice
Simon Small* and Paul Hocking; University of Wales College of Medicine, Cardiff, UK

7J2 The “Advanced Training Practice”: a questionnaire and interview-based study of their role
John Skelton and Steve Field*; West Midlands GP Unit, Birmingham, UK

7J3 Does gender make a difference? CME for the female physician
Jane Tipping* and Jill Donahue; Markham, Ontario, CANADA

7J4 Strategic planning for effective partnerships
Jane Tipping* and Danielle Deslauriers; Markham, Ontario, CANADA

7J5 Integrating practice reflection and practice adjustment planning into the design of a CME meeting
R L Thivierge*, L Samson and J V Patenaude; University of Montreal, Montreal, CANADA

7J6 The Catalan Council of Physicians’ Colleges Accreditation Diploma in Continuing Medical Education
A Ramos*, J Aliaga, A Gual and H Pardell; College of Physicians of Barcelona, Barcelona, SPAIN

7J7 Breaking bad news: how to learn in a CME workshop
Francois Goulet*, André Jacques* and Robert Carrier; Collège des Médecins du Québec, Montréal, CANADA
International Medical Education

Chairperson: Professor Lennart Bouman
Meet in: Building 10, Kursraum 6 (lower ground floor)
Poster location: Teaching Building, 1st floor

7K1 Differences in learning style and satisfaction with Residency training for United States and internationally trained students
Steven R Daugherty; Kaplan Medical, Chicago, USA

7K2 Crossing borders - The Berlin Biomedical Exchange Office
U Arnold* and J W Dudenhause; Charité, Humboldt-University Berlin, GERMANY

7K3 Academic medical education in developing countries: an analysis of papers presented at medical education conferences in Argentina
Angel M Centeno*, Gustavo Amestoy and Amelia Cabrera; Universidad Austral, Buenos Aires, ARGENTINA

7K4 Communication skills training in Germany - results of a survey
Jan Schildmann* and Ulrich Schwantes; Charité, Humboldt University Berlin, GERMANY

7K5 Reform of the medical educational system in Georgia
R Khetsuriani, B Kilasonia and A Telia*; Tbilisi State Medical University, Tbilisi, GEORGIA

7K6 Results and main objectives of the first stage of education reform at the TSMU
R Khetsuriani, B Kilasonia and N Pruidze*; Tbilisi State Medical University, Tbilisi, GEORGIA

7K7 First international Integrated Surgery course at the Charité, Berlin
Hajo Schmidt-Traub; Charité, Humboldt University Berlin, GERMANY

7K8 Counting the uncounted: estimating the number of overseas doctors in training grades in the UK currently not employed in the NHS
Janet Grant, Mairead Beirne* and Heather Owen; Open University Centre for Education in Medicine, MILTON KEYNES, UK

Special Subjects

Chairperson: Professor John Simpson
Meet in: Teaching Building, Room 1.0107 (1st floor)
Poster location: Teaching Building, 1st floor

7L1 Illegible notes - do tomorrow’s doctors need teaching on how to write more clearly?
E Westcott, A Kontoyannis*, N March, T Reid and K Sixsmith; University of Wales College of Medicine, Cardiff, UK

7L2 An active method to prepare students to lead medical interviews: an experience at Xavier Bichat Medical School
Corinne Pieters; Dominique Maillard*, Françoise Blanchet-Benque; Hôpital Louis Mourier, Colombes, FRANCE
**7L3**  Teaching medical students patient advocacy skills: an interdisciplinary intervention using Standardized Patients/Families

Gracianne Adamo*, Virginia Randall, Janice Hanson, William Sykora, Aileen E Zanoni, Elizabeth Jepson and Richard E Haukens; Uniformed Services University of the Health Sciences, Bethesda, USA

**7L4**  The parameters affecting attitudes to death among students in a Medical College in Taiwan

Ming-Liang Lai; National Cheng Kung University Hospital, Tainan, TAIWAN

**7L5**  Evaluation of practical sessions in Clinical Anatomy: a strategy for educational improvement

M A F Tavares* and M C Silva; Medical School of Porto, Porto, PORTUGAL

**7L6**  Towards a more effective teaching of Gross Anatomy: introducing new integrated clinical concepts and improving peer presentations/evaluation techniques

Amedeo Raouf*, Thomas Gest, William Burkel and Tamara Stein; University of Michigan Medical School, Ann Arbor, USA

**7L7**  Putting the salutogenic orientation into practice: the life cycle course at the Technion

H Eshach*, R Van-Raalbe, I Dolev, H Bitterman and D Hermoni; Technion, Haifa, ISRAEL

**7L8**  ASAMANS (Ask Students About Medicine And National Socialism)

T Drewes*, P Langkafel* and S Muller*; Chanté, Humboldt University Berlin, GERMANY

**7L9**  Stress among medical doctors

J Agsteribbe* and J Cohen-Schotanus; University of Groningen, Groningen, NETHERLANDS

**7L10**  Introducing changes in medical education: the “strategy” of Clinical Anatomy at the Medical School of Porto

M A F Tavares; Medical School of Porto, Porto, PORTUGAL

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Coffee in foyers of Teaching and Research Buildings

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**Session 8: Short Communications**

**8A**  Computer Mediated Learning and Assessment

Chairperson: Dr Joel Feiner
Room: Teaching Building, Hörsaal 1 (Ground Floor)

1030-1045

1  Preparing clinical small group sessions by using digital video in CBE

Marianne G Nijhuis*, Caro Brumsen, Jan A Gevers Leuven and Peter G M de Jong; Leiden University Medical Center, Netherlands

1045-1100

2  Inter-physician communication training through computer-based patient simulations

S Eggemont*, P M Bloemendaal, E Schoonderwaldt and J D Donnison-Speyer; Leiden University Medical Center, Netherlands
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<th>Time</th>
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<th>Title</th>
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<tbody>
<tr>
<td>1100-1115</td>
<td>3</td>
<td>Computer Assisted Learning: using and doing research in primary care</td>
<td>Linda Leighton-Beck*, Philip Hannaford, Neil Hamilton, Sara Shaw and Yvonne Carter; Scottish Council for Postgraduate Medical &amp; Dental Education, Aberdeen, UK</td>
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<td>1115-1130</td>
<td>4</td>
<td>Extracting core competencies “bottom up” from case histories by an online consensus seeking process in family medicine</td>
<td>Peter Schlaepfe* and Ralph Bloch; University of Bern, Switzerland</td>
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<td>1130-1145</td>
<td>5</td>
<td>A new era of teaching. An innovative resource for continuing medical education and evidence based management</td>
<td>K El-Hayes, B McElhinney, B Adams, E Boyd and K McKinney; Co Down, Northern Ireland</td>
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<td>1145-1200</td>
<td>6</td>
<td>Evaluating medical student and resident education: a CME software program</td>
<td>J C Edwards*, P Ogden and A A Stricker; Texas A &amp; M University, USA</td>
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<tr>
<td>1200-1215</td>
<td>7</td>
<td>Metabolic challenges on CD-ROMs</td>
<td>Marie-Paule Van Damme*, Jonathan Gould, Bruce Livett, Janet Macaulay, Ron Maxwell and Graham Parslow; Monash University, Clayton, Australia</td>
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<tr>
<td>1215-1230</td>
<td>Discussion</td>
<td>[Opening Discussant: Dr Megan Quentin-Baxter]</td>
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**Implementation of Problem-based Learning**

Chairperson: Professor Arcadi Gual  
Room: Teaching Building, Hörsaal 2 (Ground Floor)

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<tr>
<td>1030-1045</td>
<td>1</td>
<td>Problem-based learning for trainees in Anaesthesiology</td>
<td>Sigrid Adam* and Jan Klein; Erasmus University, Rotterdam, Netherlands</td>
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<td>1045-1100</td>
<td>2</td>
<td>Communicating with students in a problem-based curriculum: experiences with WebCT</td>
<td>Michelle McLean and Kathy Murrell; Nelson R Mandela School of Medicine, Congella, South Africa</td>
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<td>1100-1115</td>
<td>3</td>
<td>Faculty members and senior students as facilitators in PBL-groups - similarities and differences</td>
<td>Are Holen*, Kristin Wigen and Øyvind Ellingsen; Norwegian University of Science and Technology, Trondheim, Norway</td>
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<tr>
<td>1115-1130</td>
<td>4</td>
<td>Tutors’ perspectives of problem-based learning</td>
<td>Diana Kelly; Guy’s, King’s and St Thomas’ School of Medicine, London, UK</td>
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<tr>
<td>1130-1145</td>
<td>5</td>
<td>The E.D.I.T. project in Linköping: using web-based scenarios for PBL</td>
<td>Wölfram Anteohl*, Anne-Christine Persson, Margareta Bachrach-Lindström and Björn Bergdahl; Division of Medical Education, Linköping University, SWEDEN</td>
</tr>
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<td>1145-1200</td>
<td>6</td>
<td>How to promote success in a PBL tutorial session</td>
<td>N Pajamies*, K Lonka and T Hätönen; University of Helsinki, FINLAND</td>
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<td>1200-1215</td>
<td>7</td>
<td>Evaluation of the student staff in the experience of PBL in the</td>
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</table>
Federal University of Roraima - Brasil  
Álearo Tulio Fortes*, César Ferreira Penna de Faria, Roy Guilherme de Souza and Fernando Menezes da Silva; University of Roraima, Brazil

**Discussion** [Opening Discussant: Anne Garden]

**Curriculum Planning**

**Chairperson:** Dr Frank Smith  
**Room:** Teaching Building, Hörsaal 3 (Ground Floor)

1030-1045  1 **Priorities in the content of the curriculum from the standpoint of the academic staff**  
E Nagle*, R Velins and V Piragis; Latvian Medical Academy, Riga, Latvia

1045-1100  2 **Reforming the core curriculum of the Reformstudiengang in Berlin - a Delphi study**  
B Huenges*, W Burger, J W Dudenhausen, U Frei, C Frömmel, H-P Lemmens, U Schwantes and D Scheffner; Arbeitsgruppe Reformstudiengang Medizin, Berlin, Germany

1100-1115  3 **Early clinical clerkship - does it make a difference?**  
Berit Eika* and Ole Sonne; University of Aarhus, Denmark

1115-1130  4 **ECTS (European Credit Transfer System) as a tool in curriculum development**  
B Grether; University of Zurich, Switzerland

1130-1145  5 **The continuum of professional development**  
H M R Meier; University of Toronto, Canada

1145-1200  6 **Evaluating ethics seminars**  
Gerald Neitzke; Hannover Medical School, Germany

1200-1215  7 **A tool to evaluate medical ethics seminars**  
Mareke Moeller* and Gerald Neitzke; Hannover Medical School, Germany

1215-1230  **Discussion** [Opening Discussant: Professor Ala'aldin Al Hussaini]

**The Final Examination**

**Chairperson:** Dr Jack Boulet  
**Room:** Research Building, Hörsaal 4 (Ground Floor)

1030-1045  1 **Consistency of examination marks**  
T Vik*, K H Karlsen and S Westin; Norwegian University of Science & Technology, Trondheim, Norway

1045-1100  2 **Identifying threshold competence in an undergraduate qualifying clinical examination**  
John Cookson* and Stewart Petersen; Leicester Warwick Medical School, Leicester, UK
3 The validity of performance standards on a certification examination for occupational therapists
Ernest N Skakun; University of Alberta, Canada

4 Reliability of a sequential clinical examination
Stewart Petersen* and John Cookson; Leicester Warwick Medical School, Leicester, UK

5 Consideration of legal, ethical and organizational aspects of clinical competence in a National Licensing Examination: evaluation at the Medical Council of Canada
Jacques E. Des Marchais*, Dale W. Dauphiné and David Blackmore; Medical Council of Canada, Montreal, Canada

6 Combining different components of an assessment procedure
J Degryse*, J Goedhuys, A Roex and A Dermine; K U Leuven, Belgium

Discussion [Opening Discussant: Dr Diana Wood]

Postgraduate Education/Career Choice
Chairperson: Professor Ope Adekunle
Room: Building 10, Hörsaal 6 (Ground Floor)

1 Teaching with patients: moving beyond ‘learning by osmosis’
Kath Green; South Thames Department of Postgraduate Medical and Dental Education, London, UK

2 The effect of an interactive postgraduate education programme on parenteral treatment in Macedonia
M Ivanovski, P D Toon*, K Zafirovska, F Točija and B Gomes; University College London, UK

3 Promoting innovation in postgraduate education through the accreditation process
Judith Armbruster; Accreditation Council for Graduate Medical Education, Chicago, USA

4 A new development in postgraduate surgical education: the Intermediate Breast Course - a distance learning course
H M Sweetland*, E Hoadley-Matdment and M Galea; University of Wales College of Medicine, Cardiff, UK

5 Attitude change in neonatologists-in-training by participation in the neuropediatric follow-up of former premature infants
J B Hentschel; Universitaets – Frauenklinik des Inselspitals, Bern, Switzerland

6 Factors that influence the career choice of medical specialization
M B M Soethout* and G van der Wàl; Vrije Universiteit Medical Centre, Amsterdam, Netherlands

7 Personality differences in doctors affect the factors associated with their medical specialty choice
Gillian B Clack*, Derek Cooper and John O Head; Kings College London, UK

Discussion [Opening Discussant: Professor Janet Grant]
Teaching and Learning

Chairperson: Professor Clarke Hazlett
Room: Teaching Building, Mikroscopierraum (First Floor)

1030-1045  1  Impact of peer tutoring on the patient-centered interviewing skills of first-year medical students  
D Nestel* and J Kidd; Imperial College School of Medicine, London, UK

1045-1100  2  Peer assisted learning - a teaching strategy for the new millennium?  
Joy R Crosby and H Mei-Ling Ball*; University of Dundee, UK

1100-1115  3  An insight into how students learn about a cardiovascular problem using study guides  
Shihab E O Khogali*, Jennifer M Laidlaw, Stuart D Pringle and R M Harden; University of Dundee, UK

1115-1130  4  Study guides in an outcome-based medical curriculum at the International Medical University (IMU), Malaysia  
M I Narjahan*, J C Ramesh, S Raman, A Radhakrishnan, C L Teng, K H Ong, C M K Patrick and Q Akhtar; International Medical University, Negri Sembilan, Malaysia

1130-1200  5  How authors of an extensive distance learning programme for surgical trainees differed in their use of the specified template  
Jennifer M Laidlaw*, Ronald M Harden, Lorraine J Robertson and E Anne Hesketh; SCPMDE Education Development Unit, Dundee, UK

1200-1215  6  Context-dependent memory in a meaningful environment: in the classroom and at the bedside  
Franciska Koons*, Olle Th.J. ten Cate and Eugène J F M Gusters; Universiteit Medisch Centrum, Utrecht, Netherlands

1215-1230  7  Continuous Interactive Class (C.I.C)  
J Medrano*, R Calpena, A Compani, M T Pérez Vázquez, J Lacueva and M Díez; Miguel Hernandez University, Alicante, Spain

Discussion  [Opening Discussant: Professor David Prideaux]

Assessment in Postgraduate and Continuing Education

Chairperson: Dr Michael Tunbridge
Room: Teaching Building, Room 2.0102 (Second Floor)

1030-1045  1  A computerized adaptive test as an element of the final assessment of general practitioners in Flanders. Possibilities, difficulties, dilemmas…  
A Roex* and J Degryse; K.U. Leuven, Belgium

1045-1100  2  Insight 360: a tool for looking at doctors’ performance  
E B Peale* and R Conradi; University of Oxford, UK

1100-1115  3  Impact on non-principals in General Practice of the summative assessment audit project  
P Bowie, A Garvie and J Oliver; University of Glasgow, UK
Wednesday 5 September

1115-1130
4 The difference between the ability to apply consultation guidelines and the routine of application: A relevant distinction?
Myrra Vernooij-Dassen*, Ben Bottema and Cees van der Vleuten; University of Nijmegen, Netherlands

1130-1145
5 What do SHO Educational Supervisors REALLY think of appraisal?
Ann Cadzow*, Helen Coutts, Fiona French, Linda Leighton-Beck and Ken McHardy; SCFMDE, Aberdeen, UK

1145-1200
6 Visual-spatial ability and the objective assessment of technical skills
K R Wanzel*, S J Hamstra, D J Anastakis, E D Matsumoto and M D Cusimano; Centre for Research in Education, Toronto, Canada

1200-1215
7 Validity of MIST-VR in the assessment of laparoscopic skill
A M Paisley*, P Baldwin and S Paterson Brown; University of Edinburgh, UK

1215-1230 Discussion [Opening Discussant: Dr John Pitts]

8H

Curriculum Change

Room: Teaching Building, Room 2.0101 (Second Floor)

1030-1045
1 Innovation and reform of medical education: evaluating the UNI Program in Latin America
E C Ribeiro*, G Werner, A Aguilar and V Brant; Universidade Federal do Rio de Janeiro, Brazil

1045-1100
2 Promoting responsive curriculum change within the 21st Century
Cam Enarson; Wake Forest University School of Medicine, Winston-Salem, USA

1100-1115
3 Improving the University and NHS Teaching Hospital Trust Partnership to identify SIFT spending
Andrea J Bolshaw; University of Birmingham, UK

1115-1130
4 Assessment of medical student attitudes toward relevant aspects of medical practice
M L V Rodrigues*, L E de A Troncon, M F A Colares, J F C Figueiredo, A R L Ciamflone, C E Puccinato, L C Peres and J A Dela-Coleta; Faculty of Medicine of Ribeirao Preto, Brazil

1130-1145
5 Effect of a curriculum reform on graduating student performance
M L V Rodrigues*, J F C Figueiredo, L E A Troncon, C E Puccinato, L C Peres, A R L Ciamflone and M F A Colares; Faculdade de Medicina de Ribeirao Preto, Brazil

1145-1200
6 A developmental approach to reduce the long term risk of rejection of curricular changes
Jamsheer Talati* and Camer Vellani; The Aga Khan University, Karachi, Pakistan

1200-1215
7 The final year in undergraduate medical education: key position between theory and daily routine
K Muller; University of Bonn, Germany

1215-1230 Discussion [Opening Discussant: Ms Brownell Anderson]

- 2.43 -
### Communication Skills Training

**Chairperson:** Professor Knut Aspegren  
**Room:** Teaching Building, Room 2.0104 (Second Floor)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 1030-1045 | **1** Which interviewing skills must be actively taught at medical school?  
K Aspegren*, P Henriksen, P Lomborg-Madsen and M Strømme; Copenhagen University Hospital, Denmark |
| 1045-1100 | **2** Implementing communication skills training at the Charité - a project by students and doctors  
Jan Schlemdamm*, Carsten Schwarz, Eva Herrmann, Heidirose Ortwein, Amelie Klambeck, Andreas Brunklaus and Ulrich Schwantes; Humboldt University Berlin (Charite), Horn, Germany |
| 1100-1115 | **3** Teaching sexual history-taking to health care professionals in primary care  
J R Skelton* and P M Matthews; University of Birmingham, UK |
| 1115-1130 | **4** SEX SEX SEX, oh yes, and how’s your knee?  
Annie Cushing* and Dawson Evans; St. Bartholomew & The Royal London Queen Mary's, London, UK |
| 1130-1145 | **5** Training of the systemic approach in doctor patient communication I: history taking from a third party  
K P M van Spaendonck* and E M van Weel-Baumgarten; University of Nijmegen, Netherlands |
| 1145-1200 | **6** Training of the systemic approach in doctor patient communication II: history taking with a patient and a third party  
E M van Weel-Baumgarten* and K P M van Spaendonck; University of Nijmegen, Netherlands |
| 1200-1215 | **7** Breaking bad news - evaluation of courses run by students and young doctors  
H Ortwein*, E Herrmann, A Brunklaus, A Kretz, C Schwarz and J Schildmann; Humboldt University Berlin, Germany |
| 1215-1230 | **Discussion** [Opening Discussant: Dr Amindra Arora] |

### Clinical Teaching

**Chairperson:** Dr Ioan Bocsan  
**Room:** Building 10, Kursraum 5 (Lower Ground Floor)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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| 1030-1045 | **1** Increasing student awareness of strengths and weaknesses using a Standardized Patient case  
Debra Cohen*, Jerry Collier, Mark Swartz and Randal Robbs; Mt Sinai School of Medicine, New York, USA |
| 1045-1100 | **2** Clinical dermatology: prospective randomized comparison of a traditional, a personal bed-side teaching (PBST) and a problem-oriented-practical (POP) course  
F R Ochsendorf*, H Bochnicke, R Hovelmann, A Boer and R Kaufmann; Klinikum der J.W. Goethe-Universität, Frankfurt/M, Germany |
<table>
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<tr>
<th>Time</th>
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<tr>
<td>1100-1115</td>
<td><strong>Clinical skills training - a new curriculum between BEME and reality</strong></td>
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<td>Peter Frey; University of Bern, Department of Instructional Media (AUM), Inselspital 38, CH - 3010 Bern, SWITZERLAND</td>
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<td>1115-1130</td>
<td><strong>The effects of student gender on patients’ willingness to be examined by medical students</strong></td>
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<td>William P Metheny*, Roxanne Jamshidi and Kara Pitt; Brown University School of Medicine/Women and Infants Hospital, Providence, USA</td>
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<td>1130-1145</td>
<td><strong>Reality shock among medical students attending first clinical rotation</strong></td>
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<td>I Levi* and T Fischel; Sackler Medical School, Ramat Gan, Israel</td>
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<td>1145-1200</td>
<td><strong>Experiential clinical learning in a horizontally-integrated, problem-based curriculum</strong></td>
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<td>Tim Doman*, Arno Muijtjens and Henrty Boshuizen; Universities of Manchester and Maastricht, UK and Netherlands</td>
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<tr>
<td>1200-1230</td>
<td><strong>Discussion</strong> [Opening Discussant: Dr Paul Hemmer]</td>
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### International Aspects of Medical Education

**Chairperson:** Dr M Roy Schwarz  
**Room:** Building 10, Kursraum 6 (Lower Ground Floor)  

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>1030-1045</td>
<td><strong>Influence of Studying on Students’ Health (ISSH)</strong></td>
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<td>T Schweickert*, P Hodžic, V Jurkovic, J Seitz*, O Ornar* and T Shiozawa*; German Medical Students’ Association, Aachen, Germany</td>
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<tr>
<td>1045-1100</td>
<td><strong>A comparison of undergraduate medical curricula in various countries</strong></td>
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<td>J Mirecka*, Paola Binetti, Jan Heijman, Roy Remmen and K Liptinski; Department of Medical Education, Krakow, Poland</td>
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<tr>
<td>1100-1115</td>
<td><strong>International differences in medical content preparation</strong></td>
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<td>Steven R Daugherty* and Rochelle Rothstein; Kaplan Medical, Chicago, USA</td>
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<td>1115-1130</td>
<td><strong>New trends at TSMU: elaboration of medical education conception</strong></td>
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<td>R Khetsuriani, B Kilassonia, Z Avaliani* and G Simonia; Tbilisi State Medical University, Georgia</td>
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<td>1130-1145</td>
<td><strong>Learning needs assessments for refugee doctors; establishing baseline data about medical knowledge and experience</strong></td>
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<td>Lesley J Southgate* and Joan F Fuller; University College London, UK</td>
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<td>1145-1200</td>
<td><strong>Helping refugee doctors back to work</strong></td>
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<td>M J Bannon*, E Raice, G MacFadden, G Cowan, S Cheeroth and Y H Carter; London Deanery, Harrow, UK</td>
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<tr>
<td>1200-1215</td>
<td><strong>New York University Master Scholars Program</strong></td>
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<td>Sharon K Krackov; New York University School of Medicine, New York, USA</td>
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<td>1215-1230</td>
<td><strong>Discussion</strong> [Opening Discussant: Dr Charles Boelen]</td>
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</table>
**Special Subjects**

Chairperson: Professor Ester Mateluna  
Room: Teaching Building, Room 1.0107 (First Floor)

1030-1045  
1  And now for something completely different … reflective style learning of the Arts in medicine  
Paul Lazarus; University of Leicester, UK

1045-1100  
2  Seamless humanities: on integrating medical humanities into medical education: the Witten project  
C Hick*, B Matzke, B Strauwal, A Weymann and W Vermaasen; Universität Witten/Herdecke, Germany

1100-1115  
3  Improving clinical reasoning in novice clinicians: a diagnostic training aid to support clinical reasoning in student physiotherapists  
Gill James; Coventry University, UK

1115-1130  
4  The culture of criticism and argument in health education  
Barbara Westwood* and Geoffrey Westwood; University of Western Sydney, Australia

1130-1145  
5  Development and interim evaluation of a new postgraduate course in community gynaecology and reproductive health care  
A Parsons, B Olowokure* and M Walmam; University of Warwick, Coventry, UK

1145-1200  
6  Palliative medicine education for Internal Medicine Resident Physicians  
Marcos Montagnini*, Edmund Duthie and Basil Varkey; Medical College of Wisconsin, Milwaukee, USA

1200-1215  
7  Teaching stress management and empathic communication to medical students  
Ray Melmed and Hannah Kedar*; The Hebrew University, Jerusalem, Israel

1215-1230  
Discussion [Opening Discussant: Professor Paul O'Neill]

1230-1330  
Lunch in Marquee

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**Session 9: Plenary**

**Different views of medical education**

Room:  Teaching Building, Hörsaal 1 and 2  
(Note: there will be a video link to Hörsaal 3 to provide additional seating)

Chairperson: Dr Madalena Patrício, Portugal

1330-1355  
9/1  The role of clinical experience in the acquisition of clinical reasoning: Implications for education  
Professor Geoff Norman, McMaster University, Canada
Wednesday 5 September

1355-1420

9/2 Keeping standards up to date
Ms Susanne Pruski, Medical Student from Charité, Medical Faculty of the Humboldt-University, Berlin

Discussion

1420-1445

Short break

1445-1500

Special presentation: Humour in medical education is like a box of chocolates …
Dr Ron Berk, The Johns Hopkins University, Baltimore, USA

1500-1550

Close of Conference, and presentation of Medical Teacher Poster Prize

Please remember to hand in your Conference Evaluation Form at the Registration Desk. (Spare copies are available if required). We value your feedback, together with your suggestions for future speakers and workshop organisers.
SECTION 3

Conference Social Programme,
Tours and Accommodation
Tours, Optional Conference Social Events and Accommodation

Please address all bookings and queries relating to the above to DER-CONGRESS:

DER-CONGRESS
Bundesallee 56                  Tel:     +49 30 857 9030
D-10715 Berlin               Fax:     +49 30 85 79 03 26
Germany                      Email:   der@der-congress.de

Bookings for accommodation/tours/optional social programme should be submitted on Form C, included in the provisional conference programme or available from the AMEE Office. Please return Form C direct to DER-CONGRESS and not to the AMEE Office.

Conference Social Programme

The following two social events are included in the registration fee:

Sunday 2 September 1400-1700 hrs

Sightseeing tour of Berlin by coach, starting at The Forum Hotel, Alexanderplatz, Berlin (see map on page 1.6)

Please make your own way to the Forum Hotel to meet your coach. On the tour you will see the most attractive and historic sights of Berlin: Kaiser Wilhelm Memorial Church; Europa Center; Bauhaus Archives; New National Gallery; the Philharmonic Concert Hall; the “Anhalter” railway station; the “Alexanderplatz”; the “Gendarmenmarkt” with its twin French and German cathedrals; Nikolai District; Television Tower; Red City Hall (which houses the Berlin Senate, and is the location for the Opening Ceremony on Sunday evening); “Zeughaus”; German State Opera; the magnificent boulevard “Unter den Linden”; Brandenburgh Gate; the “Reichstag”; Congress Hall; the “Tiergarten”; “Schloss Bellevue”; Victory Column; German Opera House, and Charlottenburg Palace. The tour will terminate at the Forum Hotel.

Sunday 2 September 1930-2130 hrs

Welcome Reception in the “Red Town Hall” (Rotes Rathaus), Rathausstraße (see map on page 1.6)

You are invited by the Senate of Berlin to the Red Town Hall, which is the headquarters of Berlin City Council built in neo-Renaissance style between 1861 and 1870. The evening is the opportunity to meet colleagues and friends; musical entertainment by Musici Medici Quartet who will play some pieces by Schubert; drinks and snacks provided. Please note that you should make your own way to and from the Red Town Hall.
Optional Social Events

The following Conference Social Events are not included in the registration fee and can be booked through DER-CONGRESS, using Form C available from DER or from the AMEE Office.

Monday 3 September  1930-2300 hrs

River Cruise, starting at Jannowitzbrücke

Price: DM 100 per person

This river cruise on the Spree presents the historic centre of the city with its most important sights from a completely different angle. You will pass such buildings as the Reichstag, the Berlin Cathedral, the castle Charlottenburg etc. from the waterfront. The tour will be guided in English and will start from the landing stage Jannowitzbrücke. It will end at Berlin Cathedral (see map on page X). Buffet dinner and two drinks are included. Tickets may be collected from DER on registration and please remember to take these with you to the event as they entitle you to two free drinks!

Tuesday 4 September  1930-2230 hrs

Gala-Dinner at the Aquarium, Budapester Straße 32, 10787 Berlin (see map on page 1.6) Price: DM 130.00 per person

The location for our Conference Dinner is the Aquarium, situated in the western city centre and part of the famous Zoological Gardens. The Aquarium houses the greatest variety of species in the world and you are free to look around. A dinner buffet and drinks are provided, with musical entertainment from the Brass Brothers – from Bach to the Beatles and, by popular request, Foetus ex Ore, the Norwegian medical students’ choir that has amused and amazed us in previous years. We must vacate the building by 2300 hrs which is bedtime for the fish – they suffer distress and higher mortality rates if deprived of their rest! Please make your own way to and from the Aquarium.

Student Social Events

Saturday 1 September

If there is sufficient demand, there will be a pub crawl for all the students who arrive early (they may not object to a few non-students tagging along if anyone else is interested!). Please contact them if you would like a guided tour of the Berlin nightlife: student.amee@charite.de

Monday 3 September  1930 hrs until late

An alternative to the River Cruise, for students only! The local students invite visiting students to a free dinner in the ‘Lecture-hall Ruin’. This is the old pathology lecture-hall that was partly destroyed during WW II, has been rebuilt and is now being used for social events. All students registering for the Conference will be contacted by the Berlin students and asked if they would like to attend the dinner. As numbers are limited they can’t promise that places will be available for everyone. Please contact student.amee@charite.de for further information.
Tours leave from and return to the Forum Hotel, Alexanderplatz (see map on page 1.6). All tours are guided in English. Lunches do not include drinks.

**Monday 3 September 0830-1630 hrs**

*Impressions of the Spreewald*  
*Price: DM 150.00 per person*

This day-tour to the Spreewald offers an unparalleled experience of nature. The area, which was originally settled by the Sorbs, is traversed by numerous tributaries of the River Spree, these often being the only links between houses and fields. The tour will take you to Burg and Leipe, two small idyllic towns in a romantic setting. Spreewald specialities will be served at lunch. Enjoy a trip along the network of waterways on one of the traditional Spreewald punts.

**Tuesday 4 September 0830-1630 hrs**

*Neuruppin & Rheinsberg Palace*  
*Price: DM 150.00 per person*

This is a Coach trip to the little town of Neuruppin, which is situated on the lake "Ruppiner See". During a sightseeing tour you will get to know the home town of Theodor Fontane and Karl Friedrich Schinkel. After lunch the trip continues to Rheinsberg, "picture book for lovers" as Tucholsky called it. The town, which is situated on the east bank of the "Griebericksee", is famous in particular for its palace, Schloß Rheinsberg. It was built in 1566 as a moated castle and in 1737/40 Knobelsdorff reconstructed it into a major architectural work during Friedrich the Great's reign. The Rheinsberg Palace houses a museum, which is open to the public. The tour also includes a walk through the palace gardens, which were originally designed in Baroque-style and changed into English-style gardens at the end of the 18th century.

**Wednesday 5 September 1000-1400 hrs**

*Potsdam/Sanssouci*  
*Price: DM 70.00 per person*

This tour shows old and modern Potsdam. You will visit the well-preserved, world-famous Rococo Palace Sanssouci with its art treasures and beautiful park. A city tour through Potsdam will follow.
Pre-Conference Tours

All tours are guided in English. Tours leave from and return to the Forum Hotel, Alexanderplatz (see map on page 1.6). Programme is subject to change. Lunches do not include drinks.

Saturday 1 and Sunday 2 September (1.5 days)

Dresden

Department Berlin 0900 hrs on 1 September, return to Berlin 1200 hrs on 2 September (one overnight stay)

1 September: Start of the tour in Berlin. On the way to Dresden you will pass by the lake “Teupitzer See”, some distant parts of the Spreewald and the coal mining area of Niederlausitz. Dresden is one of the most beautiful baroque towns in Europe. During a sightseeing tour through the city you will visit the most important sights such as the Zwinger, Taschenberg-Palace, the famous Semper Opera House, picture gallery ”Old Masters” with the famous painting ”Sixtinische Madonna” or the dazzling jewellery exhibition in the ”Green Vault”.

2 September: At 0900 hrs your return journey to Berlin will start. The tour ends also at the Forum-Hotel, Alexanderplatz.

Rate per person in a double room: DM 305,00
Rate per person in a single room: DM 375,00

Rates include following services: de luxe coach, 1 overnight stay including breakfast in a Hotel of 4-Stars category, all entrance fees.

Saturday 1 September 0900-2000 hrs (one day)

Mecklenburg countryside

The excursion will take you to Schwerin, an old town “up North”. In this “City of Seven Lakes” you can admire the magnificent palace, situated on a charming island, which no lesser than Tsar Alexander enthused over. After lunch you will be driven past the lake “Schwerin” towards Wismar, the first record of which dates back to 1229. The buildings still testify to its former glory as a hanseatic city. The historic centre has been restored and the whole area is now protected by a conservation order.

Rate per person: DM 175,00 (including transportation in de luxe coach, lunch and entrance fees)
Post-Conference Tour

All tours are guided in English. Tours leave from and return to the Forum Hotel, Alexanderplatz (see map on page X). Programme is subject to change. Lunches do not include drinks.

Thursday 6 September  0830-1800 hrs (one day)

Potsdam's Parks and Palaces

A visit of the palaces and gardens of Sanssouci will be followed by a guided tour to the Cecilienhof, the place where the Potsdam Agreement was signed in 1945. After lunch a city tour through the former garrison town with its Dutch Quarters and Russian Colony will follow.

Rate per person:  DM 150.00 (including transportation in de luxe coach, lunch and entrance fees)

Cancellation Policy

In case of cancellation of the accompanying persons’ tours and one-day pre- and post-conference tours after 15 June 2001 the full fee is payable. There will be no refunds. After 15 June 2001 the following cancellation fees will be charged for the overnight tour:

<table>
<thead>
<tr>
<th>Location</th>
<th>Single Room Cancellation Fee</th>
<th>Double Room Cancellation Fee</th>
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<tbody>
<tr>
<td>Dresden</td>
<td>DM 330.00</td>
<td>DM 260.00</td>
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Accommodation

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Student Accommodation

DER-Congress does not deal with allocation of student accommodation.

Local students have a few rooms available in their own homes for visiting students. Please contact student.amee@charite.de for information.

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The rates are between DM 24,00 and DM 65,00 per night.
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Session 1  Plenary

1/1 Towards global standards for medical education

Jordan J Cohen
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Jordan Cohen has had a longstanding interest in standards in medical education from the perspective of a Dean of a medical school and Professor of Medicine, a Chair of the American Board of Internal Medicine and the Accreditation Council for Graduate Medical Education, and President and Chief Executive Officer of AAMC. In this session he will share his views about standards in medical education. Why are standards important? To what extent should we aim for global standards? How might this be achieved?

1/2 New times, new standards: the social accountability of health systems and medical schools

Charles Boelen
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Health systems worldwide face the challenge of providing evidence to various stakeholders, including the public, of their capacity to meet priority health needs and expectations of individuals and society at large. Medical schools alike, to ensure continuous support, will increasingly be expected to demonstrate how their educational, research and service delivery activities best contribute to meet requirements for improved quality, equity, relevance and cost-effectiveness in health care. These requirements and conformity to new standards should not just be seen as constraints but as opportunities for expansion and renewed leadership in the health sector.

1/3 Death of the course

R.M Harden
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Traditionally, curricula were made up of a series of courses based on disciplines such as anatomy, pathology, surgery or medicine. These have evolved to courses based on body systems or other topics. Such courses are usually described in terms of a timetable or syllabus with the number and topics of lectures, small group, practical, or clinical sessions specified. This paper argues that we will see a revolution in curriculum and instructional design in response to real needs such as the need for more flexible training programmes, more multiprofessional learning opportunities and greater cooperation between education providers. These changes will be achieved through the application of new technologies and a fresh approach to educational thinking. Contributing to this fundamental change will be:

1 The move to outcome-based education;
2 The development of electronic curriculum maps accompanied by appropriate study guides;
3 A dynamic adaptive approach to learning based on reusable learning objects with an appropriate learning management system.

The course as we know it today may not be already dead, but it is dying.
Session 2A  A virtual learning environment

2A1 Virtual learning environments – a learner centred review

Megan Quentin-Baxter* and Suzanne Hardy
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The findings of a study to investigate approaches to Virtual (Managed) Learning Environments which the United Kingdom’s National Health Service might take in implementing a ‘virtual classroom’ are reported. The brief was to assess current strategies in Internet-based learning and teaching via a review of current known VMLE products/projects in relation to NHS needs; to consider the suitability for transfer to a UK-wide learner centred continuing professional development environment (the NHS) based on an adult learning model, incorporating sophisticated portable reflection/recording tools; to examine the conceptual models of ‘teacher’ and ‘learner’, and how these definitions might affect the assessment/construction of a VMLE based on the required model and applied to the NHS workforce. The methodologies employed, a brief analysis of some of the representative VMLEs identified, and the need for new or integration of existing technologies to support a learner centred approach will be discussed.

2A2 Impact of a digital learning environment on the efficiency of teachers

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In September 1999 a digital learning environment for students was introduced at the Leiden University Medical Center. The environment supplies students with additional organizational information as well as course-related content. In May 2000, the influence of this environment was evaluated by means of a questionnaire among all students and teachers in the first year of study. Teachers use the environment mostly for schedules (66%) and changes in schedule (56%), formative questions (56%) and publication of the right answers on the final examination (44%). Images, pictures and articles are hardly published due to possible violation of copyrights. However, almost unanimously teachers declare that from their point of view, students now have more rapid access to much more information and that for themselves, publishing information is much more time-efficient than before. In May 2001 the same questionnaire will be conducted and the results will be compared with the 2000 questionnaire.

2A3 Building blocks in a new curriculum: the role of the library in educational innovation

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In support of the University of Pretoria’s aim of providing a virtual campus by means of telematic teaching and web-based training, the Medical Library began a virtual information service on the Internet. This service is integrated into the curriculum of the Faculty of Medicine by the information specialists by creating webpages to support the study programmes. Using block books of specific courses, a spectrum of information sources is put together on webpages. These sources include fulltext articles, CD-ROM, videos, websites, etc. Students work interactively by doing their searches on various databases, access the library catalogue and fulltext journals. Webpages differ in content according to individual courses. Students are exposed to a wider variety of information, enabling them to make informed decisions, to make more use of the library material, to work from home - not bound geographically, and also to prepare themselves for the virtual information world of the future.

2A4 IT learning environment: more structure or more room for manoeuvre? Centrally guided norm path or absolute freedom?

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Various typologies and taxonomies for IT learning environments are already described in literature. A central element is the principle of navigation. Is there an imposed “norm path” or, on the contrary, can an absolute freedom of movement be provided for, that will allow the student to study flexibly according to his own style of learning? ICHO is in the process of developing a new electronic learning environment. Since 1 September 1999, every student has access to his or her own ‘workplace’ on the website. With the introduction of the Internet-based iTOL further progress has been made. More than just the latest software package, iTOL is a new approach to teaching. The model that forms the basis of the iTOL is essentially a hybrid. Individual study and self-guided learning are central features. Within the discussion forum group learning is of uppermost importance. The focus of the case studies is problem-oriented thinking and problem-solving learning. The iTOL project closely follows the constructivist vision of learning and teaching (Grabinger 1996, White 1992, Dufy & Cunningham 1996, Harel & Papert 1991). Strictly speaking, no norm path is imposed in an iTOL. However, the aim is to
exploit the role of periodic and modularly organised tests and navigation, which is directed by explicitly formulated learning goals.

**2A5 Innovation in self-directed learning (SDL) in CME: Virtual Internet Patient Simulation**

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SDL in CME has been mainly driven by the use of published written material and also now the growing use of the Internet. Unfortunately, reading material is still a rather passive activity. We have developed a computer software built with clinical vignettes in which each participant will simulate real encounters with virtual patients. To do so, the user will have to follow each step of the basic clinical approach: 1 – finding the problem; 2 – fixing the problem; 3 – at each step: each question or decision has to be justified (exploring the clinical reasoning); 4 – an ongoing feedback can be given upon request at each level (EBM content already included); 5 - a final feedback and report is given at the end of each case. This paper will present the main features of VIPS and will cover a qualitative evaluation conducted with a group of 20 family practitioners.

### Session 2B  PBL and the curriculum

**2B1 The birth of a new species – squirrums: towards equal collaboration in innovation in medical education**

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In September 2000, St George’s Hospital Medical School in London began a new problem-based medical course for graduates. Initially St George’s purchased problem-based cases and tutor training expertise from Flinders University in Adelaide, Australia, where a similar course had been introduced in 1996. The resulting collaboration began as a predominantly one-sided affair with a net information flow from Adelaide to London. But it did not remain that way for long. There is now an active exchange of existing, new and revised cases, sharing of web-based resources, regular staff visits, student bulletin boards, joint workshops through video-conferencing and collaborations on evaluation and research. We liken the resultant curricula to a new species – squirrums – a cross between squirrelcs and possums. This paper will outline and analyse the essential features of the collaboration and draw out issues and ideas that could be applied to other such partnerships.

**2B2 Broadening learning with PBL in a pathophysiology course**

Antonio Rendas* and Bernardo Correia
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Based on our experience of PBL in a pathophysiology course from a traditional curriculum, we developed a computer simulation to register the tasks performed by the students. These records allowed us to identify, in three consecutive years, the following elements; learning needs (ln) – expressed in PBL sessions; learning resources (lr) – used during the self-learning periods. Six cases were analysed every year covering different body systems (digestive, circulatory, blood, respiratory, kidney and endocrine). Each case, based on a complete patient history, was analysed by a small group of students (an average of 10), in five tutorial sessions, lasting for two hours and occurring twice a week. Despite the single discipline nature of the course we found a wide range of ln and lr, from basic sciences, especially physiology and histopathology, to clinical medicine, especially internal medicine. In our experience PBL proved to be a useful method to broaden learning beyond the boundaries of pathophysiology.

**2A6 Real learning through virtual presentation: an Internet based work environment course for medical students at Uppsala University**

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Internet based learning in occupational and environmental medicine in Uppsala Medical School was introduced during the spring term 1999. A homepage was constructed which contained schedule, handouts, message area and quality assessed links. The written exam was omitted for Internet assignments. The project was evaluated by a questionnaire. Sixty-six percent of the 113 students answered the questionnaire. The teaching stimulated students to reflect about possible relationships between the patients’ symptoms and their occupations as well as the environment. The students also knew where to find information about such relationships. The Internet project had made it easier for the students to control their time. The course had a positive effect upon student interest in the field and encouraged integrating earlier knowledge. Occupational and environmental medicine may be especially suitable for Internet based learning but it is likely that this kind of teaching would be useful even in other classes.
2B3 The implementation of problem-based learning (PBL) into a traditional Radiology clerkship

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The aim of the study was to demonstrate the implementation of problem-based learning (PBL) into a traditional Radiology clerkship. In addition to the reformed medical curriculum which is running as a parallel track, PBL is also applied as a teaching method in the traditional curriculum. The core radiology clerkship was taught as a two week block course with PBL sessions every morning followed by clinical rotations in radiology. Continuous end of block evaluation was performed applying a questionnaire. Based on students’ feedback, changes in the course structure were made. After four years it is obvious that radiology is suitable for the use of PBL, because of its interdisciplinary character. Based on both student and faculty feedback the group dynamics, student and faculty satisfaction, course effectiveness and role of the tutor were rated positively. A set of standard cases was adapted according to comments from a mandatory review session at the end of the clerkship. It is concluded that the introduction of problem-based learning in radiology had a positive impact on faculty development. Five faculty members were educated in becoming PBL tutors and tutored later students of the reformed medical curriculum of the Charité.

2B4 Medical education innovations in Dresden, Germany: Reformed Medical Faculty Carl Gustav Carus, Dresden University of Technology

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The new curriculum in Dresden is based on the principle of Problem-Based Learning (PBL). The curriculum is developed in collaboration with Harvard Medical School. All teachers are professionally trained in specific courses. The PBL program will integrate elements of medical ethics, quality management, health economics and evidence-based medicine. At present, five multidisciplinary courses have been introduced into Year 3 and 4. The focal point of each course is a tutorial with eight participating students and one PBL-trained tutor. Students and tutors discuss a particular patient’s case, related to the theme of the course. Lectures, laboratory courses and “bed-side learning” complete the curriculum. The Dresden program plans the integration of further PBL courses into Years 4 to 6. Multidisciplinary courses in basic sciences in Years 1 and 2 will complete the program. Every aspect of the PBL program is regularly evaluated by an external institution.

2B5 Problem-based Learning in Immunology and Infectious Disease (IMID): the Dresden experience

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IMID are underrepresented in the curriculum of German medical students. In the final exam, less than ten out of more than 500 questions are related to immunology. IMID are scheduled early in the medical curriculum when most students have not seen patients regularly. This situation does not reflect the medical development where immunology and infectious diseases are becoming increasingly important. Based on the principles of problem-oriented learning, we conducted an eleven-week-multi-disciplinary course in IMID. The schedule included morning-lectures, two laboratory sessions and three tutorials (8-10 students) per week. Eleven cases were presented covering major issues in the field. Due to the clinical background of the cases the students were able to learn the principles in infectious diseases from a “real life story”. Lectures, tutorials and lab sessions were evaluated permanently by a questionnaire. Students reported a higher motivation to learn and to self-study. We think that a more profound insight into IMID will be a benefit for their professional careers.

2B6 From case-based reasoning to problem-based learning

Haim Eshach* and Haim Bitterman  
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Many medical schools question whether they should implement a problem-based learning (PBL) curriculum. Educators raise some serious questions regarding the efficiency of PBL and therefore recommend learning more about the cognitive processes developed by PBL before broadly implementing it. In addition, it is important to determine whether PBL best matches the human reasoning processes. In this theoretical article we examine the relationships between the case-based reasoning (CBR) model and PBL. CBR indicates that the source of knowledge one uses while solving a new problem is not only generalized rules or general cases, but often a memory of stored cases recording specific prior episodes. CBR allows the reasoner to propose solutions to problems quickly and to propose solutions in domains that are not completely understood, such as medicine. Our analysis reveals strong association between CBR and PBL. We conclude that PBL is a successful teaching method that should be encouraged by medical schools.
A new approach to PBL in CME; using script concordance tests (SCT)

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Traditionally the PBL material for CME is prepared with the help of clinical cases to be discussed between peers while answering specific questions. A prior needs assessment is done to ensure that the material and its content will respond to the learning needs of the participants. In order to be more tied to the learners’ needs, we have designed a new model (SCT) for building each case where the answer to each question can be displayed and compared to the responses of a group of expert physicians (previously obtained) on the same topic. Similarities and discrepancies between the responses (participants vs experts) become overtly obvious when revealed on the overhead screen during the running of the workshop. This PBL model using SCT has a primary effect of obtaining an ongoing needs assessment of the learners while the workshop is actually being delivered.

Discovering versus covering: a new PBL in Behavioural Sciences

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During the initial decade since its establishment in 1986, the Department of Behavioural Medicine at Sultan Qaboos University had placed more weight on teaching at the expense of learning. As with most teacher-centred learning, the implicit assumption has always been that a good teacher must necessarily produce good students regardless of the fact that student learning is active or passive. Over the last 5 years the Department has initiated student-centered learning teams while reducing the lecture format to the minimum. The shift is essentially a move away from a culture of rote teaching and learning to a more interactive culture of critical reading, thinking, and reading material, which can be made relevant to the culture of the students and the common problems of their communities. Following initial problems of adjustment and reluctance by both teachers and students, it has been found that there is more value in the balance between the discovery approach to learning and the covering of material approach to teaching.

Session 2C  Curriculum database

Aiding the reform – development of a curriculum information system

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Curriculum information systems have been discussed in the literature since the early 1970s. Most systems in existence deliver structural information, and little is known about systems that have been designed to successfully serve as planning tools. We explore possible reasons for this phenomenon. The University of Vienna Medical School is currently reforming its curriculum from strictly subject based to one with an integrative approach. Such a process generates large amounts of data and a great need for information and coordination. At the same time the systemic shift stimulates a climate of uncertainty for individuals and departments. Our school has therefore funded the design of an information system to fill the needs of exchange and coordination in the reform process. The presentation will discuss how this information system supports the planning process: it represents information in several structured formats, aids in decision making, and provides orientation for stakeholders.

How effective is project management software in implementing a new course?

Katharine Grundy
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Planning and implementing a new graduate entry programme in medicine presented many challenges. A management system was required to assist in the administration of the project and to generate communications tailored to the needs of the individual teachers and administrators. We decided to use Microsoft Project, the most widely used project management software. It assists in the organisation of administrative tasks such as identifying key milestones, scheduling activities, assigning resources and tracking progress. An invaluable feature of the software is its ability to publish reports e.g. filtering information to ensure individuals only receive details relevant to themselves. This information can be distributed either on paper, by email or published on the Intranet. For a project to succeed, however, it requires more than good software. Critical factors for successful project administration include rigorous planning, realistic time-scales, effective communication, clearly defined responsibilities, commitment from senior management and regular monitoring.

MESMIS – Medical School Staff/Student Management Information System: Towards the electronic curriculum

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MESMIS is a comprehensive web-based management information system developed at Dundee Medical School to provide communication; resource
management; staff and student support mechanisms; course information inclusive of personal (staff and student) timetables; e-learning and now outcome based enquiries for each learning opportunity. Access to the system is secure and only accessible by registered medical students and staff, including internal and external honorary clinical staff involved with the delivery of the medical course. Registration is achieved on-line and permits access to information by students and staff from anywhere in the world. It provides a comprehensive Managed Learning Environment (MLE) with a number of active links providing the basis of a Virtual Learning Environment (VLE). This is complemented by an outcome-based assessment process that is enhanced by the components of “outcome-mapping”, significantly strengthening its already generic application.

2C4 SIMON – Student Information and Management Online Network

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We have developed a web-based administration and information system to improve both student and faculty facilities through enhancement of the online experience. SIMON offers a central starting point for students and teachers alike and allows direct interaction between them. Registration for courses may take place online. Lists and information are generated automatically and are always up to date. Curriculum evaluation may occur via a web interface. SIMON provide teachers the opportunity to contact students prior to the start of a course and distribute instructions, help or hints. Furthermore, SIMON is an ideal forum for discussion, problems and reflection on case studies outside the classroom environment. Integration of additional teaching modules has been allowed for, such as online guides for specific courses. Individual departments may employ variable programming structures, allowing this project to be extended and adjusted accordingly and as their future needs arise.

2C5 Portfolio-based Dermatology internship – one year’s experience

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The last year (practical year) of medical education in Germany is not very systematized. In order to improve student learning during the dermatology internship we introduced a portfolio to clarify which components are considered important within dermatology: 25 qualifications divided into “general basics”, “dermatology-basics” and “special-dermatology” were listed in a student’s portfolio with a theory, supervision and clinical practice part. The individual achievements were documented in the portfolio by the educating residents. Since May 1999 15 students participated in the portfolio-program, they completed in the mean 70% of the listed activities; general basics were fully completed by all the students, 75% of dermatology basics and 46% of special dermatology were completed. The students welcomed the portfolio as it provided a useful overview of learning opportunities and achievements. This is the first use of portfolio-based medical education in a dermatology internship in Germany. Students strongly requested implementation of portfolio-based learning in other faculties.

2C6 Profile of the consultations made by fifth year medical students in the integrated program of pediatrics and public health

Claudia Astudillo, Rocío Arenas, María Bustamante*, María De La Fuente and Gladys Yentzen
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During the 5th year of medical school, the students participate in an integrated program of pediatrics and public health, which includes a visit to a primary care clinic where the students are able to apply the knowledge acquired in the theoretical course of pediatrics and learn the abilities that will help them participate in actions of promotion, protection and recovery of health. The objective of this study is to know which were the most common diagnoses they made and verify if they are the same they will see in the future. We analyzed 609 consultations, with a total of 795 diagnoses, which were classified according to the ICD 10. The three most frequently found diagnoses were respiratory, infectious and cutaneous diseases, which are the same found in the literature. It is concluded that to prepare medical students to recognise and treat the most common diseases, the primary care clinics are a necessary instrument that can easily be inserted in the curriculum.
Session 2D  OSCE/Standardised patients in assessment

2D1  “Check it, rate it, palm it or leave it” – handheld computers replace checklists in OSCEs and provide automated feedback

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We recently developed software that enables PalmOS powered handheld computers to replace checklists in an OSCE. Each observer is now provided with a mobile handheld device to record mistakes, incomplete or missing actions by striking with a pen on a touchscreen. Additionally, the examiner can enter new items during the test, which serve as suggestions when the item database is updated. At the end of the examination the data of all participating candidates are synchronised (by “beaming”) and transferred to a desktop computer for further processing (like statistical item analysis or immediate candidate feedback printouts). Based on 18 months’ experience with our new assessment system, we see clear advantages in the speed of data gathering, the ease of data evaluation and the quick and highly elaborated feedback. Observers familiarised well with the device, which also turned out to be less intrusive than checklists. So far the program worked failsafe.

2D2  Evaluation of the undergraduate surgery course: effect of OSCE

Marco Bustamante Z*, Carlos Carvajal H, Fernando Quevedo R, Maria Bustamante C and Claudia Astudillo M
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Two different methods, a guideline of evaluation applied by different teachers and OSCE, have been used to estimate knowledge, attitudes and dexterities in undergraduate medical students of the 4th year in the subject of surgery. The objective of this communication is to compare the results on the final grades of the class before and after the introduction of OSCE. In the year 1997-1998, the final grade was composed of theoretical exams 40%, evaluation guidelines 60%. In the 1999-2000 period, this grade was composed of theoretical exams 40%, OSCE 40%, evaluation guidelines 20%. The final grades averages, standard deviation and variation coefficients were compared during the two periods. Period 1997-1998 final grades average was 5.62, st dev 0.66, var coeff 11.7. It is concluded that establishing a type of examination that measures skills objectively increases the dispersion of the grades threefold. This allows us to conclude that, with OSCE, a more valid document is obtained, assuring better discrimination amongst students.

2D3  OSCE: are many different stations necessary for each evaluation?

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One of the objections about the Objective Standardised Clinical Examination (OSCE) is the need for many different stations for each evaluation. The supposition is that early consciousness of OSCE stations may increase the OSCE score. At the Medical School of Chile University, we used OSCE evaluation consecutively in 4 groups of medical students, all of these with the same stations; groups 1 and 2 in 1999; groups 3 and 4 in 2000. There were no statistically significant differences among the mean score between groups 1 and 2. The mean score in group 1 was greater than group 3 (p values <0.001) and group 4 (p values <0.001). It is concluded that the early consciousness of the medical student of OSCE stations has no influence on the increase of their OSCE scores.

2D4  Assessing ‘attitude awareness’ as part of an OSCE

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It is recognised that attitudes play an important role in interpersonal communication as well as being important determinants of the quality and efficacy of medical care. Since 1999 the Department of General Practice in NUI, Galway has been teaching a module on Attitude Awareness to fifth year medical students and has assessed this module as part of the end of year Objective Structured Clinical Examination (OSCE). There are a total of eight active general practice stations in the OSCE, four of which, excluding the attitude stations, are dedicated communication skills stations. These are referred to as the communication skills component and cover explaining, negotiating, listening and management skills. The remaining three stations are referred to as the clinical skill component and cover CPR, venepuncture and blood pressure assessment. All 71 and 74 students were assessed in 1999 and 2000 respectively. The mean grade in 1999 for the attitude station was 57.97 (standard deviation [S.D.] 12.97), 61.08 (S.D. 9.19) for communication skills and 64.24 (S.D. 9.11) for clinical skills. For 2000 the mean grade for the attitude station was 73.75 (S.D. 10.84), 64.11 (S.D. 7.79) for communication skills and 71.98 (S.D. 13.27) for clinical skills. The mean grade for a paediatrics OSCE, run concurrently, was 70.6 (S.D. 11.1). The feasibility of preparing and assessing an attitude awareness module has been confirmed. Further discussion regarding reliability and validity of the assessment will occur.

2D5  Is the assessment of clinical skills affected by the choice and characteristics of the standardized patients?

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The use of standardized patient (SP) exams for summative certification and licensure decisions is
becoming more common. Here, it is imperative that scores are reliable and valid. To accomplish this task, great care must be taken in the training and monitoring of SPs. For the Clinical Skills Assessment (CSA), administered by the Educational Commission for Foreign Medical Graduates (ECFMG), SP performance is continually scrutinized. In addition, surveys are administered to collect data on SP demographics and opinions regarding exam logistics and training. The purpose of this paper is to explore the relationship between SP-related variables (e.g., work history, training, conditions portrayed) and the adequacy of candidate scores. Initial results suggest that, albeit small, variation in candidate scores can be attributed to some characteristics of the SP. Fortunately, continuous quality control, combined with periodic training and re-training of SPs, ensures that decisions regarding candidate competence are accurate, fair, and unbiased.

2D6 Use of standardized patients to assess medical response to a natural disaster
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We describe the feasibility and advantages of utilizing Standardized Patients (SPs) to train and assess the ability of military medical teams to provide international health care following natural disasters. The real-time simulation took place aboard ship after a hurricane in Belize. Cases were based upon geographic and natural disaster-related epidemiology. Moulage, radiographs, computerized laboratory and imaging reports were provided. Analytic methods included surveys, structured medical record review, SP checklists, and direct observation. Crew rated the exercise as more realistic and significantly better than a previous exercise without SPs in assessing and preparing them to triage and care for casualties. Medical record audits and SP checklists were complementary in evaluating quality of care for individuals. Observers yielded important data regarding patient flow, communication, equipment function, supply use, and ancillary support. The simulation and inclusion of a variety of assessment measures allowed for high quality evaluation of complex care delivery.

2D7 The weakest link? Performance factors and degrees of influence in an interactive long-station general practice examination (VOICEs)
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Passing a six-station Primary Care OSCE examination is compulsory. In 2 tasks students improvise consultations with ‘patients’ portrayed by our role-play team. Clinical performance is marked by a clinical examiner. Communication scores (professionalism, competence, attitude) are awarded by negotiation between examiner and role-player. This paper is part of a study evaluating reliability and bias across examination variables. Data about role-players, students and examiners; the dynamics and score-awards, demographics and the logistics of exam days were collected. Results from over 1,000 assessed consultations were collated on SPSSv.10. Preliminary data suggest variables such as question selection, order in which students are seen, age/experience of examiners and relationship between role-player and examiner assessment are not significant. Despite the apparent subjectivity of the format, interactive examinations are an appropriate means of testing the communication skills of medical students.

Session 2E Postgraduate education – the early years

2E1 New PRHO: “I am not sure what I am supposed to do”. Can we improve on PRHO induction? An evaluation of a new induction process
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We conducted a controlled study involving 48 PRHOs. We compared a traditional, one-day induction with a newer process principally involving five days of shadowing before the commencement of the PRHO post. Clinical responsibility was taken in a safe environment with full support from the outgoing teams.

We assessed feelings of anxiety, preparedness and confidence in clinical skills via questionnaire, and ability in clinical skills via an OSCE, before and after induction and at one month. We audited prescribing errors, radiology request errors, note keeping and adverse events in both groups. Pre-induction levels of anxiety and uncertainty were high, with almost half having biological symptoms of anxiety. Clinical skills improved during the longer induction, and 21/22 of intervention PRHOs felt more prepared for their post (cf 13/22 controls with 7/22 controls feeling less prepared after a traditional induction). We will discuss the induction process and statistical analysis of results in depth.
Main findings were:

- The three posts make a balanced, coherent package.
- The scheme produced no detriment for the PRHOs.
- There were no detrimental effects on hospital supervisors’ time commitment.
- The time impact on the general practices was significant.
- The new scheme has some effect on PRHOs’ career plans.

A national pilot project to give pre-registration house officers experience in primary care [with 4 months in each of medicine, surgery and primary care] was conducted from August 1998 – August 1999. A national evaluation was commissioned involving all PRHOs and their supervisors, and a reference group from the traditional scheme [6 months medicine, 6 months surgery]. Tailored survey questionnaires were completed by trainees and supervisors at the end of each 4- or 6-month post. The areas evaluated included costs, governance, content and process of learning, outcomes of learning, and assessment, quality assurance and monitoring.

The objective of the study was to explore the views and experiences of pre-registration house officers (PRHOs) regarding shared decision-making with patients. Twenty-six PRHOs were interviewed towards the end of a four-month general practice attachment. The interviews were semi-structured and analysed qualitatively. Three major themes emerged: The PRHOs perceived differences in approach between doctors in hospital and primary care, with general practitioners being more likely to share information and decisions with patients and experience of this after qualification. They had begun to develop strategies to decide how much information to give patients and to what extent to involve patients in management decisions. It is concluded that medical students and PRHOs lack training and opportunity to decide on shared decision-making with patients. This is an area that merits consideration when planning medical education.
Teaching the forgotten tribe: tutor views on a generic curriculum for SHOs

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A consortium of postgraduate centres has developed as a pilot, a generic programme for the SHOs in South East Wales. It is designed to run for an initial eight week period commencing in the Spring of this year, with an evaluation in July and a report on the programme in August 2001. The core curriculum has been resource led, its design predicated on the various skills and topics which individual consortium members felt able to contribute. This paper complements the initial phase of a research study which focused on the perceived needs of SHOs and VTS and takes as its focus the core tutor team. It seeks to identify emergent themes of congruence and dissonance between the groups of learners and teachers in order to assist in the identification of a compatible curriculum addressing the perceived needs of the SHO grade within the limitations of resources and service commitments.

General professional training (GPT) for dental graduates in the UK

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This presentation reports on GPT in UK dentistry. Comparison is made with senior house officer training for medical graduates which is currently under review in the UK. The study gained information on the GPT undertaken by recent graduates in dentistry and their views on it. A questionnaire was sent to those registered (since 1997) for Membership of the Faculty of Dental Surgery (MFDS) Distance Learning Course (Royal College of Surgeons of England). A 55% (n=342) response rate was achieved. Widespread support was found amongst trainees for a period of GPT. However there was consensus that this period should be voluntary. There was support for both formal, integrated 2-year programmes and self-constructed versions that can offer greater flexibility. A qualification marking the successful completion of GPT was favoured. GPT that provides experience of primary and secondary care forms a broad basis for future careers.

Session 2F  Peer assessment

Peer- and co-assessment leads to shared responsibility for test results

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During the clerkship in Internal Medicine, an introductory test is taken every 3 weeks by a group of 10 students. A pool of correctors corrects the test. Usually there is a lot of discussion concerning the test results. Therefore a new correction procedure was introduced. In duos, students do the first correction on copied versions of the test, with the aid of a standard answer sheet. Discussion is encouraged and students can put down their comment in writing, preferably with references added. This comment is sent to the second corrector together with the original version of the test answers. On evaluation, most of the students commented positively, especially on the possibility to gain insight into the correct answers. The method of peer- and co-assessment appears to have led to an improved acceptance of test results, reflected by a dramatic decrease in complaints.

Student self-marking as an assessment approach to developing professionalism

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Dundee University Medical School has adopted an outcome-based curriculum in which personal development is one of the defined outcomes. Self-learning and self-awareness are important attributes of this outcome. A study was undertaken to evaluate the feasibility and reliability and to survey student opinion regarding the value of undergraduate medical student self-marking of written examinations as a means of developing these attributes. The correlation between student and staff marks, and the reliability of marking was high. The majority of students considered there was value in the exercise as a learning and feedback opportunity, but found it stressful. We believe that this approach, as well as being reliable, provides a powerful feedback and self-learning opportunity. It also provides a mechanism to identify individuals who over or under mark or who feel threatened by feedback or are unable to receive negative feedback, with whom Faculty can work.

Comprehensive assessment: value for learning

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The University of Rochester School of Medicine and Dentistry has implemented a two-week long comprehensive assessment of second year medical students for purposes of providing formative feedback. Multiple assessment techniques, including standardized clinical encounters and peer assessments, provide
feedback that identifies specific learning needs as well as problematic patterns of behaviour. Students work with their advisory deans to interpret the feedback and construct individualized learning plans. An overview of the various components will be presented as well as examples of different types of feedback and learning plans. The value of this comprehensive assessment for student learning and for curricular planning will be discussed with attention given to the resources required for implementation.

2F4 Attributes of the excellent physician: a third year student survey
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Role-modeling is a basic part of medical education. Sixty-six third year medical students were asked – using questionnaires with open and closed (Likert scale type) questions – to indicate their opinions on the attributes of a good doctor. The students favoured good humanistic qualities in the relationship with patients and families (96% good or very good), ability to look for help when needed in clinical practice (97%), diagnostic abilities (97%) and honesty and ethical behaviour (94%). The least important attributes included leadership (68% little or no importance), research abilities (71%) and a good general culture (67%). It is concluded that third year medical students can define a set of attributes of what they consider to be a good doctor: these include professional behaviour, ethics, knowledge and leadership. We will recheck these results at graduation time (within 3 years).

2F5 The Medical Student Peer Evaluation Initiative: assessment of performance in small group settings
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Experience with student assessment at the University of Pittsburgh School of Medicine led to the observation that, although a faculty facilitator was not identifying early a student experiencing difficulty in small group, the student’s peers were generally aware of the problem. This led to the development of the Medical Student Peer Evaluation Initiative (PEI), which aims to provide feedback to students on performance in small group sessions; recognize students who demonstrate excellence; identify poorly functioning students and offer counseling. Each student rates each other group member on the member’s ability to help the student learn. If a score pattern indicates a problem, a faculty overseer meets with the student. Results of the PEI reveal excellent participation, early identification of students with a range of difficulties, and rapid remediation of most problems. In conclusion, peer evaluation is a feasible and useful measure of student small group performance.

2F6 Reliability of a multidimensional questionnaire to assess attitudes of medical students towards their future profession: the UNI Project
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Nucleo de Estudos de Saude Coletiva, NESC/UF RJ, Av. Brig. Trompowsky s/n - HUCFF, 5o andar - Alâ Sul, BRAZIL.
The objective of this study was to assess the reliability of answers to questions concerning attitudes of medical students towards their future profession. We developed a self-administered questionnaire including 52 questions covering attitudes expected to be developed by students during medical school. A test-retest design was used as a preliminary evaluation of the questionnaire. The questionnaire was completed twice within a one-week interval by students of the major university of Rio de Janeiro, Brazil. The test-retest reliability was estimated by kappa statistics (K). Twenty-four questions (46%) had K greater than 0.6 (substantial agreement); 13 questions (25%) had K between 0.4 and 0.6 (moderate agreement); and 15 questions (29%) had K below 0.4 (fair agreement). Considering the complexity of assessing attitudes, we judge these preliminary results as satisfactory. The next step will be to revise and test those questions showing low agreement.

2F7 Narrowing the gap in the assessment process
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The problem with assessment processes in the past has been to motivate the participants to take an active and creative part in the process. This requires a narrowing of the gap between different groups and that the process stimulates each individual participating. On the initiative of the student organisation, the Faculty of Medicine in Göteborg implemented the Course Committee in year 2000 after three succesful pilot projects. The Course Committee is the motor in the assessment process, creating a suitable environment for communication in close connection to the reality of each participant. As a meeting point between the different parts in the educational process it improves not only the democracy of the organisation necessary for continuous improvement, but the course committee also facilitates the translation from the student’s descriptive language into the defined language of the manager of the course. A protocol published on the www preserves the productive dialogue and the suggestions made.
Session 2G  Continuing professional development

2G1  Learning and partnering: bringing pharmaceutical representatives into the educational loop

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Pharmaceutical representatives play a key role in upholding high standards for CME in Canada. Representatives receive many opportunities to upgrade knowledge of disease states and management; however very little is offered for the practice of CME. A group of dedicated professionals from across Canada representing academia, industry and the Council for Continuing Pharmaceutical Education has created a training module specifically for pharmaceutical representatives. The outcome has been a quality program that includes a method of training and evaluation unique in format and congruent with the philosophy of adult education. The coalition of three stakeholder groups represents an example of partnership that promises to offer a means of raising and maintaining standards of CME across the country. A method of education and evaluation is presented that will evoke critical discussion in the issues of industry CME and the meaning of partnership. Methods of conducting research on efficacy will also be discussed.

2G2  CME with a combination of standardised patients and a CBT programme

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A new approach to continuous medical education CME concerns teaching and knowledge assessing of general practitioners in musculoskeletal diseases sponsored by Aventis Pharma. The three elements of the CME-seminar were an interactive tutorial with a CBT-programme, the assessment and discussion of problem solving strategies including three standardized patients with frequent musculoskeletal diseases and finally a lecture on innovative therapeutic possibilities. The new form of CME was welcomed by nearly all of the 26 physicians (with the exception of 1); their opinion about this kind of training was very positive. Individual deficits in problem solving were obvious to each of the physicians so that immediate improvement was possible. The three educational elements of the CME were judged almost equally with a slight advantage for the part with the standardised patients. The CBT programme was considered an integral and important part of the rheumatology seminar.

2G3  The impact of continuing professional development (CPD): 30 case studies of dentists

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This presentation reports on a key part of a Department of Health funded study whose principal aim was to explore the impact of CPD on the practice of GDPs.

Thirty dentists were interviewed before and after undertaking a self-chosen educational activity. Discussion focussed on the specific activity and on their experience of CPD more generally. Factors affecting the impact of CPD on practice include:

1. the process by which CPD is selected. Much is undertaken on an ad hoc/ opportunistic basis rather than an analysis of learning needs. This can lead to CPD which ‘confirms’ current practice rather than introduces new learning;
2. barriers to undertaking CPD (access, time, financial); and
3. constraints to implementing change.

There was broad support for the importance of CPD for personal and professional development, but there are significant factors which affect the impact of CPD in general dental practice.

2G4  Global trends in continuing medical education

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Patterns of Continuing Medical Education (CME) are changing rapidly worldwide. Accreditation systems are being adopted rapidly in Europe and Latin America, but are not yet well recognized. At the same time some countries and medical specialties are changing from CME to CPD (Continuous Professional Development) despite failure of earlier CPD experiments. Methods of delivering CME are also changing. Lectures are regarded as less useful than newer forms of interactive learning. The use of the Internet and CD-ROMs is increasing. CME of the future will take place at the point of care. Two new and critical issues are emerging as CME becomes mandatory for many physicians:

1. Who regulates CME? Government or the profession?

Medical educators in Europe have a major opportunity to take a leadership role.
Do we need consultant appraisal?
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There are societal and political demands for accountability by the medical profession in a world of rapid technological advances, and with better-educated and sophisticated consumers. No longer does “doctor know best”. In the UK the profession has been suffering from some high profile cases and a hostile media. As a result the government has now made consultant (senior medical staff) appraisal compulsory from 2001 and the General Medical Council will make revalidation compulsory for all doctors to allay public fears about poorly performing doctors.

This paper will explore what is meant by “appraisal”, whether it is the correct mechanism to support revalidation, and whether it is possible to prove that appraisal will support doctors in improving their professional development and performance. There is tension between the formative and summative processes, and between a demanding public and a sceptical profession.

When should clinicians be trained in management?
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The involvement of clinicians in management is an objective pursued increasingly by most health systems. In part this reflects a concern to control costs but also a need to provide a proper integration of clinical and managerial perspectives. Many senior clinicians arrive in managerial roles with relatively little managerial training. Subsequent provision can often feel urgent and remedial. In a more planned sense, there is a need to address the clinical educational curriculum to examine how best the ‘what’ and ‘when’ of managerial teaching might be incorporated. This paper reports the findings of a survey of a range of clinical staff (undergraduates, junior doctors and consultants) and health service managers about the key content areas of management training and their varying perceptions of where within the educational spectrum the most appropriate and relevant time for training might be. It also explores how such training could be provided.

Selecting aboriginal students to health professional courses
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Aboriginal students are greatly under-represented in health professional courses in Australia. The reasons for this are a complex interplay of historical, social, cultural, economic and political factors resulting in the inequity of access to higher education. There is an imperative to develop culturally appropriate methods which will increase the numbers of applicants to health professional courses and then the candidates most likely to succeed at these University courses. The Faculty of Medicine & Health Sciences has a long and successful history of admitting Aboriginal medical students. The medical school has graduated approximately 60% of the nations’ Aboriginal doctors. Given the Faculty incorporates now a range of other health professional courses, we revised our selection method to meet four broad aims:

1. Suitability for selecting students to all health professional courses,
2. Incorporation of best evidence literature,
3. Determination in large part by Aboriginal peoples and,
4. Cultural appropriateness of the selection process.
Demographic and scholastic correlates of scores in the Australian Undergraduate Medical and Health Sciences Admission Test (UMAT)

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The UMAT is an aptitude test used for selection of medical students. It is an MCQ with three components – Book 1, logical reasoning & problem solving – Book 2, human interaction skills and Book 3, non-verbal reasoning (a group embedded figure test measuring field independent cognitive style). Despite its wide use, little is known about the demographic or scholastic attributes of candidates scoring well on the UMAT. In this study correlations between UMAT scores and both family demographic variables and concurrent scholastic achievements are analysed. UMAT Book 1 scores were weakly associated with duration of family residence in Australia and with managerial and professional parental occupation: they were more strongly associated with concurrent scholastic achievement, particularly in biology. UMAT Book 2 scores had no conspicuous association with any of our demographic or scholastic variables, nor with selection interview scores. UMAT Book 3 scores most strongly associated with scholastic achievement in physics.

Can we make the interview add something new?

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There is evidence that in selecting for complex task performance the best predictor is some measure of IQ. A structured interview may add a useful degree of prediction. It is important, however, to ensure that the interview does not simply re-assess intelligence. We used a two-stage process to select for our Graduate Entry Programme. The GAMSAT assesses reasoning in sciences and humanities and writing ability. Highest scoring applicants were invited for interview. We devised an interview with high face-validity and reduced opportunity for bias by blinding interviewers to social and academic variables, and by introducing structured objective criteria. The interview appeared acceptable to interviewers and candidates. We demonstrated that performance at interview did not correlate with recent or previous academic performance so was adding something to academic assessment. Follow up of successful candidates will address the important question of the predictive validity of this selection process.

Relative effects of learning style, MCAT and prior academic record on performance in medical school

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Several studies have demonstrated that previous academic record does not fully predict success in medical school. We hypothesized that student learning styles would also correlate with medical school grades, independently of MCAT or prior academic record. We correlated learning style to marks in our largest and most integrated first year course (in Cardiology, Pulmonology and Nephrology, CPN), using the ASSIST instrument. Negative correlation was found between CPN and surface learning style (SL) assessed after the course was completed (r = -.247, p = .038). Significant correlation was also found between CPN and student MCAT results (r = .263, p = .027), but not to grades prior to medical school admission (GPA). There was no correlation between SL and MCAT (r = .053). Correlation between SL and CPN was independent of MCAT or GPA. We conclude that learning style is predictive of medical school grades independently of prior academic record.

The selection of GP trainees in the West Midlands: audit of assessment centre scores by ethnic background and country of qualification

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The new centralised system of selecting GP trainees in the West Midlands aims to be fair and non-discriminatory in the processes of recruiting the most suitable candidates, and allocating the successful candidates to their preferred posts. This paper provides an audit of the achievements of all the candidates in the October 2000 selection round. The data are examined with respect to candidates’ ethnic background and their country of qualification. Two levels of analysis are possible, based on average ‘success’ or placement rates, and average scores achieved at each stage of the selection process. The analysis suggests that white candidates, and those qualifying in the UK, are more likely to succeed in the selection process. Possible explanations are offered from a more detailed interrogation of the selection criteria. Finally, the implications for the next selection round are discussed in the light of these findings.

The selection of GP trainees: perceptions of the new regional system

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A new regional system of selecting GP trainees has been introduced in the West Midlands, replacing selection by individual GP practices. Perceptions of the regional system amongst key stakeholders were explored as part of a larger study evaluating the West Midlands selection procedures in October 2000. Data were collected by interview (with organisers, GP trainers, assessors and candidates) and questionnaire...
(to candidates: 46% response rate). The analysis revealed that the new process was viewed positively, with particular praise for the role-play assessment and the inclusion of a lay-person on the interview panels. Many thought that the new system was fairer than the old. Concerns were expressed that the process was impersonal, and that candidates had less control over their choice of practice location. The implications for future selection rounds, and for other regions considering regional selection systems, will be explored in the presentation.

2H7  “I want to become a doctor.”
Analysis of first year students’ motivations

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The psychological and cultural basis for career choice is a poorly researched subject. The objectives of the present study were to identify, after 6 months in Medical School, the reasons why students decided to be a doctor and whether they would make the same choice again given a second opportunity. First year students (n=153) were asked to complete an open-ended questionnaire. Protocols were treated through content analysis technique. The study found that students made their professional choice mainly for:
- altruistic motivation or social desirability: help people 75% / useful to society 24%;
- self motivations: loving medicine 29%, safe career 22%, personal achievement 17%, lack of routine 8%, prestige/status 7%, child dream 4%, family tradition 3%.

After 6 months when asked if they confirm their initial choice:
- 39% confirm it enthusiastically
- 51% just confirm
- 8% hesitate
- 2% do not confirm.

Correlations between the reasons underlying the professional option and the degree of enthusiasm will be explored. Implications for the student selection process will be presented.

Session 2I  Educating the educators (1)

2I1  Evaluation of a Train the Trainers program in quality improvement and cost-effectiveness

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A 4-month program was developed to teach community and academic physicians how to teach “managing care” competencies, especially quality improvement and cost-effectiveness. Interactive and didactic methods were used to teach the competencies, learning theory, and evaluation; different pedagogical methods were also modeled. Participants submitted a project plan, attended two 2-day workshops with a partner, revised their plans, and practised new methods at their home institutions. Ratings of their own knowledge of quality improvement and cost-effectiveness increased significantly. Knowledge of traditionally taught content, such as prevention and patient-doctor communication, was not affected. Participants’ ratings of their skill in teaching using different methods and in developing and evaluating teaching innovations increased significantly. There was smaller change in self-ratings of skill in giving a lecture, precepting in the office, and teaching at the bedside than in leading interactive large groups, giving feedback, or tutoring small groups.

2I2  Teaching the Medical Teachers Beyond ‘TIPS’

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Since 1999, 30 ‘TIPS’ courses have been run at RF&UCMS. The results of post course questionnaires obtained from 256 (70%) of 366 participants informed the development of further courses. Participant identified areas for further training were: Clinical and bedside teaching; One to one teaching; Teaching larger groups; Presentation skills; Group dynamics and small groups. As a result of this feedback three follow up courses have been designed and piloted. The “TIPS” name was maintained because of the positive association. “TIPS 2” focuses on clinical/bedside teaching and student and course factors affecting learning. “TIPS 3” focuses on large group teaching and presentation skills. “TIPS 4” focuses on small group teaching and facilitation skills. “Microteaching”, voted the most helpful aspect of TIPS 1, has been retained as an opportunity for individualised feedback and putting theory into practice. Full details of objectives, content, teaching plans and feedback for these courses will be presented.
Formal courses in further training of medical teachers

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The Croatian Association of Medical Education has been organising two types of attitudes aimed at further training of medical teachers; interactive workshops for experienced and formal courses for less experienced teachers of one week duration. The main aim of the formal courses is to help young teachers acquire basic pedagogical knowledge, skills and attitudes. Therefore, the following items have been covered: a psychology of learning; the principles of adult learning; curriculum development; giving a lecture, clinical teaching and tutorials; working in a small group; use of educational tools; and current developments in medical education. Special interest is paid on development of education methods, planning a timetable, defining the methods of evaluation and assessment. Since active learning is the most important, work in a small group, on individual projects and at plenary discussions occupy most of the time. Assessment consists of three parts: pre-course, written essay and MCQ, post-course MCQ, and preparation and presentation of an educational module. The participants are provided with a CME diploma in medical education - an important prerequisite for a teacher’s advancement.

Supporting Clinicians on Training in Scotland

Rose Martin, on behalf of Supporting Clinicians on Training in Scotland Working Group

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A successful collaboration between Scottish Council for Postgraduate Medical & Dental Education (SCPMDE) and the Scottish Royal Colleges has resulted in the development of a Scottish based course to support clinical trainers. The SCOTS Course (Supporting Clinicians on Training in Scotland) is unique in its content, providing instruction on assessment and appraisal, skills training, teaching and training method, reflective practice, objective setting and a strategy to manage poor performance, delivered using many teaching styles. This two-day intensive course is aimed primarily at Consultant Educational Supervisors, and it is hoped that it will be delivered to Specialist Registrars in early 2001 in a modular format. It is designed to enable trainers to provide an effective educational experience for their trainees. The positive evaluations of the course and the plan to run ten SCOTS Courses in Scotland in 2001 will ensure its position in the innovative field of Medical Education. The initiative and its evaluation will be presented in depth and its effectiveness in relation to practice will be discussed.

Improving own teaching skills identified as a top priority by Registrars

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In order to ascertain the educational needs of Medical Registrars, a questionnaire study was carried out at Hutt Hospital. This was to allow the development of an educational programme to address these specifically. The 12 registrars were sent a 7-point questionnaire. 11/12 (92%) responded with the non-responder being a locum UK doctor. Ninety percent of the respondents were aiming at a hospital consultant career and 82% were currently sitting higher exams. None had educational supervisors though 82% felt these would be useful and were keen to develop log-books or learning diaries. In terms of learning need priorities, help with teaching skills was ranked the number one priority along with both exam practice and presentation skills by 82% of the registrars. This small pilot study has shown that junior doctors rate help in improving their teaching skills as highly as exam passes.

Dissemination of teaching of medical interviewing and physical examination in Japan

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The objective of the study was to evaluate the effects of the nationwide faculty development workshop sponsored by the Japan Society of Medical Education, on the teaching of medical interviewing and physical examination in Japanese medical schools. A questionnaire was sent to all 94 medical educators from 54 of the 80 Japanese medical schools that participated in the workshop in 1996, 1997 and 1998. The response rate was 77.8%. Thirty schools (71.4%) reported substantial curriculum changes in interviewing and 29 schools (69.1%) in physical examination courses. Out of 25 Japanese medical schools where standardized patients (SP) are currently used, 16 (64%) started to use SP as a result of the workshop. Among 24 schools that currently use Objective Structured Clinical Examination (OSCE), 18 (75%) initiated OSCE after the workshop. The faculty development workshop on teaching medical interviewing and physical examination is helping to change undergraduate medical education in Japan.

Transformational learning in a peer teaching programme

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Students’ personal attitudes towards learning after their participation in a programme of teaching skills for 21 medical students acting as peer teachers are described. After completing the program we analysed data from four different areas: identification of teaching difficulties, perceived personal changes, change in studying approaches and the ability to understand faculty’s actions. The difficulty in facing their peer students, and to adapt to the role of a teacher with their
peers; the increased ability to work successfully in a team, and to become self confident, and improve their own learning skills (which led to better grades in their exams); and an increased understanding of their own faculty’s actions were the more important changes they mentioned. These data, despite the small number of students, show that our students have not only acquired pedagogical skills, but they have gone through a personal transformational learning experience.

**Session 2J  Simulation and clinical skills training**

### 2J1 Teaching clinical skills to medical students using the clinical skills laboratory with a new simulator and new tools

I Yoshioka*, T Ueno, M Horita, H Abe, I Kubara, S Kono, Y Ogo, S Watanabe, A Hayashi, T Akagi, S Okuda and M Sata (Working Group on teaching basic clinical skills)

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The objective of the study was to evaluate the usefulness of the clinical skills laboratory (CSL) to learn basic clinical skills. The CSL was introduced to medical students to learn the medical interview, physical examination, resuscitation and X-ray film reading. A questionnaire was sent to the students. The results showed that the CSL was useful to 61% of the students; especially the new cardiology patient simulator “Ichiro” was appreciated by 90% of the medical students.

### 2J2 Training in vaginal examination technique using the ‘epelvis’

C M Pugh* and M S Marsh

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Undergraduate medical students find it increasingly difficult to learn the technique of vaginal examination (VE) using real patients. A pelvic mannequin has been developed which incorporates pressure sensors over important points within the pelvis, e.g. the uterine fundus, cervix and ovaries. These sensors enable the duration and magnitude of pressure applied to parts of the pelvic organs during a pelvic examination to be measured and stored electronically. The data can be represented visually and may be seen by the student during the examination as an aid to teaching. A large database of “epelvis” examinations from vaginal examinations by undergraduates and postgraduates has been collected. The epelvis has considerable potential for the training and assessment of vaginal examination.

### 2J3 Training medical students to perform vaginal examination using the ‘epelvis’

M S Marsh* and C M Pugh

GKT Medical School, Academic Department of Obstetrics & Gynaecology, 9th Floor, Ruskin Wing, King’s College Hospital, Bessemer Road, London SE5 9PJ, UK

We have examined medical student training in vaginal examination (VE) using a pelvic mannequin (“epelvis”) incorporating pressure transducers, enabling online visual feedback of the pelvic areas examined. 74 students underwent a test of VE using three pelvic models, followed by epelvis training, followed by testing using two other pelvic models. Before testing 33% had performed >5 VEs on subjects and 55% had used a pelvic mannequin. The number of previous VEs or mannequin training was unrelated to the ability to estimate the size of the uterus correctly in pre-training tests. There was no improvement in ability to determine the size of the uterus after training in the whole group. However, in those students that had performed >5 VEs prior to testing, those able to judge uterine size correctly rose from 66% to 92% (P<0.05). Other effects of training with the e-pelvis will be presented in detail.

Michael Harrison

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A form of sequential analysis has been developed to measure performance during the early stages of acquiring practical skills. This enables the quick detection of poor performance so that extra basic tuition can be given. The technique does not require mathematical manipulation of data and therefore is able to be used in a logbook. The technique has been used for the study of students performing tracheal intubation, intravenous cannulation and the insertion of a laryngeal mask airway.

### 2J5 Approaches and advancements; integrating Simulation Center activities into 3rd year medical school Clerkship curricula

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The faculties of the National Capital Area Medical Simulation Center and several departments of the Uniformed Services University of the Health Sciences (USUHS) have collaborated to integrate standardized patient and other simulation activities into 5 of the 6 required 3rd year clerkships. The diversity of simulation activities both enriches the students’ learning, and demonstrates the creative ways that other schools can incorporate simulation into their own programs. Simulation activities at USUHS range from clerkship orientation to weekly formative exercises to end-of-clerkship assessment, and include both individual and
programmatic evaluations. More innovative approaches such as incorporating both technological and human simulation in a multi-modal learning experience, and implementing an OSCE that serves both a needs and outcome assessment purpose (measuring consistency in learning across multiple clerkship sites in order to direct specific educational interventions) will be described.

2J6 Using scenario based teaching to deliver feedback on technical and communication skills

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Technical skills and communication skills are inseparable in clinical practice but are often taught in isolation. Skills labs commonly use benchtop models for teaching core skills, but often away from their clinical context. Our solution bridges this gap by linking standardised patients (SPs) and inanimate models within a structured learning framework. Students work within a ‘safe zone’ to practise technical skills without jeopardising patient safety. They talk and listen to their ‘patient’ (the SP) while carrying out procedures (e.g. wound closure, urinary catheterisation) in realistic clinical scenarios. Procedures are observed by tutors and simultaneously videotaped. After each procedure, the student writes down personal reflections, then tutors and SPs provide verbal feedback on salient points. Each student reviews their videotape, using formative rating scales to assess technical and communication skills. Qualitative data from 35 undergraduate medical students will be presented to outline the development of this approach to giving feedback.

Session 2K Students and curriculum evaluation

2K1 Teaching quality questionnaire: students’ evaluations of standard learning activities in an integrated curriculum

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Sound evaluation routines are important to improve the standard of medical education. In an integrated curriculum it is often useful to evaluate individual clinics, seminars or lectures rather than large blocks of learning activities. We therefore developed a questionnaire to assess the quality of standard learning activities such as clinics, lectures, seminars and workshops. The students rated all presentations on five items, including structure and illustrations, oral presentation, dialog with students, relevance according to stage of study and future profession and inspiration for further studying, using a 1-5-9 scale. In evaluations of 125 learning activities by 43 first year medical students the five items clustered into one single factor, representing overall teaching quality. The teaching quality score identified 6 learning activities that required revision (mean score <4) and 20 activities where revision was suggested (mean score <5). The five items helped identify aspects with potential for improvement.

2K2 The retrospective view: formative programme evaluation of pre-clinical courses by final year medical students

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With regard to curriculum reform, final year medical students (6th year) at the Medical Faculty of the University of Zürich were asked to evaluate the anatomy and physiology courses they had attended in the preclinical years of study. 238 students completed a questionnaire (mean response rate 71%) with essay and rating questions. The results show that course contents closely corresponding to the main professional activities experienced in their clinical courses proved to be of primary relevance for the students. Lectures and practical courses were judged to be of similar value for both disciplines. 67% of the final year students would prefer more small group work. The results of this evaluation demonstrate the need to consider vertical integration of curriculum content. In summary, formative programme evaluation from the retrospective view provides additional information for curriculum planning.

2K3 Students’ attitudes towards evaluation of teaching programmes – do they fib?

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Community teaching programmes use multiple sites, and evaluation is important in monitoring quality. Our internal evaluation has produced evaluation at variance with school-based cohort evaluation. We have concerns that the collection method may alter the students’ responses, so we performed an anonymous cohort questionnaire to explore the students’ attitude towards evaluation and our collection procedure. Results are currently available from the first year cohort; additional results from other year cohorts will also be presented. 250 of 360 students responded. 14% say that completing evaluation questionnaires at seminars makes them less honest, 63% deny this. 28% think that identifying themselves makes them less honest (44% disagree), 12% are affected by identifying their
placement. 13% of students are concerned that their evaluation will affect their grades. We will discuss the implication of these findings on the procedures for collecting attributable evaluation material.

**2K4** 
**Student evaluation of educational quality: the construction of a multidimensional questionnaire**

Volkhard Fischer  
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Educational quality is a complex construct. Marsh has developed a differentiated questionnaire for student evaluations of educational quality which is widely accepted. Our 37-item questionnaire is a localized version of this general questionnaire (SEEQ) adapted for the evaluation of medical courses in Germany. The items concerning the factor work load were formulated as bipolar questions on seven-point scales. The midpoint was labeled “appropriate”. The other items had a unipolar format with six grades from “not true” to “true” and an extra checkbox “does not apply”. The global rating of the course had to be made on a 16-point Likert scale. The theoretical model was tested in a confirmatory factor analysis for the whole sample and several evaluative factor analyses for selected courses. Discrepancies between the theoretical model and the empirical results were discussed and integrated into an exploratory model.

**2K5** 
**Evaluation of lectures in medical teaching based on focal groups and a survey of opinion to formulate a guide of practical recommendations**

Juan Cristóbal Maass, Lorena Tapia, Marcela Jacard, and Teresa Millán  
Depto. de Pediatría y Cirugía Infantil, Facultad de Medicina, Universidad de Chile

In spite of new tendencies, in Chile lectures are mainly used in medical teaching. Our objective was to find out students’ opinions about aspects that influence quality of lectures, with the purpose of formulating a guide of practical recommendations (GPR). A survey was designed based on focal groups and applied to 181 5th year students. We evaluated different aspects of lectures (teacher; content, dynamics and structure; support material; and atmosphere). Of 113 students interviewed, 96.4% think that it would be useful to have a GPR for lecturers. Positive practical aspects of lectures highlighted were: delivery of lecture notes (93.8%); to give practical details (98.2%); and to give a summary (94.5%). Among negatives: that lectures were carried out in the afternoon (94.6%); lasted longer than foreseen (94.7%); and small fonts were used in projection (92.9%). We intend to discuss this guide based on the opinions obtained, showing aspects not traditionally considered.

**2K6** 
**Use of a Continuous Quality Improvement (CQI) model to enhance curriculum evaluation and integration**

Nehad El-Sawi  
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Course evaluation is one of the corner stones for the documentation of the educational process quality. CQI is a process of constructive self study that encourages participation of all students and faculty in order to maximize the benefit of the evaluation process. Eight essential activities involved in course delivery are identified. A written survey is designed to evaluate these activities. The survey is administered at the end of each course and the entire class results are tabulated as the comprehensive evaluation. Students are assigned to CQI teams before each course begins and are responsible for reviewing the comprehensive evaluation, drafting a one-page consensus report, prioritizing improvements that could enhance student learning and presenting the report to faculty and curriculum committee. The CQI evaluation model produced a more effective, meaningful and constructive evaluation while building interdisciplinary team skills and professional behavior among medical students.

**2K7** 
**New faculty-level self-evaluation instruments**

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The Faculty of Medicine at the University of Helsinki began to evaluate and reform its curriculum of medical studies in 1994. This process resulted in Helsinki 2000, a hybrid-PBL curriculum, which was introduced in 1998. A systematic programme was also integrated to support students’ personal growth and to advance their communication and thinking skills, called Professional Growth of Medical Students. In order to see how well these reforms have been implemented, we developed a set of evaluation instruments. Questionnaires and observation methods were applied for both students and teachers. The data are extensive, and some examples are presented here. The final goal is to finish a self-evaluation report for the international evaluation of all studies and programmes of the University of Helsinki, which will take place in the years 2001-2002.

**2K8** 
**The doctors’ opinion - a national evaluation of Swedish medical education**

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In autumn 2000, the Swedish Medical Association sent out a questionnaire in order to evaluate Swedish medical education. Junior doctors were asked to assess medical education in relation to the declared objectives. They
were also asked whether they thought the objectives were relevant. The questionnaire was sent to all 743 members who had been registered in 1999 (they had been working for approximately 3-4 years). More than 90% replied to the questionnaire. This is the first time a survey including all doctors from all six universities has been carried out. The survey is intended to be carried out annually, thus providing a series of results at national level, as well as an impact assessment of the new curricula which are being implemented in Swedish medical schools. The results will be presented at the conference.

Session 2L  Multiprofessional education

2L1 Interprofessional learning: the New Generation Project
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At the University of Southampton the undergraduate BM course takes place within a multiprofessional Faculty of Medicine, Health and Biological Sciences, which includes the School of Nursing and Midwifery, the School of Health Professions and Rehabilitation Sciences and the School of Biological Sciences. The rich mix of professional programmes within the Faculty has led over the past decade to numerous developments in interprofessional learning and practice. The Faculty's commitment to building on its experience of interprofessional learning is reflected in its strategic plan, and the establishment of the New Generation Project. This bold project will enable the Faculty to demonstrate its contribution to the modernisation of education and training for the health and social care workforce. The process of these changes within a large educational organisation will be explored and discussed.

2L2 “Walking in the moccasins of others”: reflections on a new initiative to bring the real world of the patient into the medical curriculum
Lyn Brown
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Community Placements are an essential feature of the Liverpool University Undergraduate Medical Curriculum. They are designed to give students contact with all aspects of health and medicine outside the immediate confines of hospital and general practice. During second year, placement in community health services, statutory and voluntary social work agencies, and supervised University based groups, provide excellent learning opportunities that complement other aspects of the students’ learning. Without diminishing the bio-medical approach to health-care, placements enhance the students’ learning by developing a broader view of health and disease that includes psychological and socio-economic factors. This would seem to offer students wider options in management of ill-health and disability; effecting involvement with, and better long term care of, their patients. This paper describes the methods, evaluations and outcomes set in place to achieve the above.

2L3 Multiprofessional education in health care ethics in Germany
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In Germany only very limited practical experience and knowledge in teaching of medical ethics and ethics of health care is available. German medical schools do not offer regular ethics teaching, whereas the “Reformstudiengang Medizin” at the Charité in Berlin provides some teaching blocks in medical ethics. Graduate ethics training in nursing sciences, public health and social work varies widely. Since 1995 the author teaches ethics to medical students as well as students in public health, nursing and social work at various universities in Berlin and the U.S. In this short communication preliminary data from a 5 year pilot study are presented. Different demands, approaches and evaluation results of ethics teaching in the different professional graduate courses are presented. Pro and cons of ethics teaching in the various professional programs are compared with the multiprofessional approaches in the Berlin program of public health and at the Evangelische Fachhochschule Berlin.

2L4 Dilemmas in resuscitation: nursing and medical students’ responses to ethical professional issues related to resuscitation of patients
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At the University of Dundee a three hour teaching session involving 280+ nursing and medical students took place in 1999. The aim was to enable the students to explore and debate, together, the ethical/professional issues inherent within resuscitation. An automated audience response test containing 5 set questions was given to the students immediately pre/post the session. Two significantly different responses were related to:

- Who should have the major say in advanced decisions of resuscitation? (Doctor, Nurse, Patient, Relatives, Team). Team-Pre: Nursing 66% Medical 78%. Post: Nursing 97% Medical 89%.
- Should close relatives be permitted to witness resuscitation? Permit-Pre: Nursing 63% Medical 12%; Post: Nursing 55% (still permit) Medical 29% (now in favour).
Analyses were by Wilcoxon and Mann-U-Whitney tests. Written comments from students were encouraging and in 2000 the topic of resuscitation was established as part of each student programme for third year nursing/medical students.

**2L5** Promoting the use of clinical guidelines in Scotland

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The initiative was funded by the National Board for Nursing, Midwifery and Health Visiting for Scotland and jointly managed by the Centre for Nurse Practice Research and Development at the Robert Gordon University, Aberdeen and The Royal College of Nursing Institute. The initiative’s aims were to increase nurses’ knowledge and skills in using clinical guidelines. The initiative clearly demonstrated the need for multiprofessional involvement in all aspects of clinical guidelines. The educational approach comprised:

- Identifying a Local Facilitator;
- Introducing key skills for multiprofessional guideline implementation through five Open/Distance Learning modules covering guideline choice, appraisal, implementation strategies and evaluation;
- Supporting Local Facilitators by: (1) regular contact with education providers, (2) problem solving group work at workshops, (3) provision of a buddy who has clinical and/or change management expertise.

Implementing clinical guidelines is a complex activity that demands multiprofessional education and intervention. Recommendations for such provision will be presented.

**2L6** Can Neuropsychiatry training be successfully delivered in a multi-professional setting?

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A half-day training course on epilepsy in child mental health was devised for a multi-professional audience. Evaluation included delegates’ self-reported knowledge, attitudes, and perception of the course. 83 professionals attended, representing related disciplines. 81 completed a pre-, 73 a feedback, 65 a post-, and 18 an eight-month follow-up questionnaire. Most reported the learning objectives to be clear (85%) and met (80%), the course was structured to facilitate learning (78%), links were made with clinical practice (78%), and they had questioned their own practice as a result (72%). Correct responses to knowledge questions rose (56% to 91%), incorrect (7% to <1%) and ‘unsure’ (28% to 5%) responses fell (p<0.0001), unaffected by professional group, or experience. Understanding improved a lot in 64%, whilst confidence improved a little in 68%. Changes were mostly maintained at follow up, by which time 39% suspected new cases.

**2L7** The CURATA Partnership: linking CHE to patient care

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Appropriate use of NSAIDs has always been difficult in many healthcare delivery systems. Partnering with all levels of intervenants under the CHE umbrella is the main approach of CURATA. This project is aimed at optimizing the use of NSAIDs at a populational level as well as at an individual physician-patient level. Partners involved run from Government Health Ministry, patient groups, pharmacists and physicians’ societies, academics and pharmaceutical industry PE departments. Educational interventions are planned over a 3 year-period (2000-03) based on the Best Practice Model (BPM): applying the sequence of dissemination, facilitation and reinforcement approaches for practitioners. This presentation will help educators in CHE to design such partnership projects in their own milieu. Outcomes measurements are also attached at each level of interventions.

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**Session 2M** Student support/psychiatry and the curriculum

**2M1** An evaluation of student support systems at the Medical School at Queen’s University Belfast

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The Faculty Tutorial Scheme at the Medical School at Queen’s University Belfast was established in 1984 to provide pastoral support for students. During 1999 qualitative and quantitative research techniques were used to evaluate this support mechanism. Questionnaire data and Focus Group Interviews indicated that both staff and students were dissatisfied with the scheme. As this study was being carried out, first and second year medical students participated in a pilot “Parenting Scheme” project. This scheme involved second year students acting as mentors for first year students. Evaluation results indicated that both staff and students would welcome the introduction of a system incorporating both support mechanisms. The Medical Student Family Support in Action was developed. This involves students continuing in their mentoring role but under the supervision of an academic member of staff. The scheme was evaluated during 2000. Results
suggest that while this scheme was seen as innovative it still has limitations.

2M2 Is student abuse a problem in our medical school?
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The purpose of this study was to determine the incidence, and the consequences, of abusive situations as perceived by students during the course of their Medical training. A descriptive study was made surveying the entire 2000 fifth year class in the Medical School of the University of Chile. The questionnaire was answered by 144 students. Results showed that 91.7% of the students had suffered at least one episode of abuse while enrolled in Medical School. Main offenders were teachers and peers. Verbal abuse was the most common (85.4%), followed by psychological (79.9%), sexual (26.4%) and physical (23.6%) abuse. Students reported that abuse had effects on their mental health, social life and the image they had of physicians; 17% considered dropping out of school as a consequence of this experience. The high proportion of teachers involved in situations perceived as abusive by students should prompt educators to reflect on their role.

2M3 First year medical, nursing and pharmacy students’ approaches to study
R J Lamdin* and J Martin
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The Approaches to Study Inventory (ASI) was administered to first year health sciences students prior to course commencement at the University of Auckland. This was to aid understanding of approaches to study in a large multi-professional first year programme. Prior to 1999 medical students in the Faculty of Medical and Health Sciences were taught a unique course but as of 2000, nursing and pharmacy students were admitted to new nursing and pharmacy programmes. In the first year, medical, nursing, pharmacy and general health science students share common courses. Each group of students is admitted via different admission systems and goes on to complete different programmes of study. This project describes the learning styles of the first year students using the ASI and considers the importance of this knowledge in teaching. Consideration of gender and age differences and the possible effect of different admission systems will be undertaken.

2M4 Changing medical students’ attitudes towards homosexuality
Itzhak Levi* and Tsvi Fischel
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In many surveys it is found that many physicians hold negative attitudes towards homosexuality. In addition, due to negative experience many gay people feel uncomfortable to report to their physician about their sexual orientation. As well as the fact that gays have unique health conditions, they do not tend to share with their physician even their general health problems, and not even problems concerning preventive medicine. In view of the above, it is interesting that most medical schools do not include in their curriculum a place to teach “homosexuality”. Attitudes towards homosexuality can be changed through workshops and active learning. Two case studies were discussed and processed by medical students in their pre clinical studies as part of the behavioral sciences course. The students showed a high level of satisfaction. Case studies could be a useful tool to teach and experience attitudes towards gays and homosexuality in medical schools.

2M5 The attitudes to Psychiatry of first year medical students
R K Day
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For over thirty years there has been evidence that psychiatry is viewed negatively by medical students. A number of self-report questionnaires of attitudes to psychiatry have been constructed, of which the most widely used is the ATP-30. The ATP-30 was administered to first year medical students on their first day of medical school to assess their initial attitudes. It was also administered to first year science class. The ATP-30 was also modified to inquire about attitudes to gynaecology and this was completed by the new medical students. The attitudes of new medical students to psychiatry do not differ from those of science students. However, medical students view gynaecology more positively than they do psychiatry. Further studies are required to determine how this initially negative view of psychiatry is affected by the medical curriculum.

2M6 Psychology basic and applied knowledge
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In a new medical curriculum an innovative course of psychology was introduced, consisting of: (1) a short (20 hour) 3rd term course giving a factual knowledge base within the domain of psychology, and (2) a longer (4 weeks) 7th term course where the application of knowledge previously acquired is trained. The short course is lecture based and within the framework of developmental psychology. Each double lecture covers an age span thereby making sure that students become aware of general as well as of age specific psychological issues. In the latter course a case based teaching format helps students develop a systematic approach to psychological themes relevant to the medical profession. Clinical psychologists introduce students to themes such as anxiety, minority problems, and psychosomatic problems. Finally, in conjunction with the Department of Philosophy, a topic (eg. the dying patient) is chosen as a returning theme covered from different angles.
Session 3 Workshops 1

3/1 The roles of the teacher
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Background
All doctors are teachers. It is a role that is constantly changing and is often a challenge for today’s doctors - especially with the many other tasks they have to carry out. This workshop gives the opportunity to explore the teaching roles and tasks that doctors might have to adopt whether they are doctors at the start of their postgraduate training or fully trained with a formal teaching responsibility.

Aims
The workshop aims to give insight into:
• the roles that today’s doctors, as clinical educators, have to adopt
• the associated tasks that they have to carry out
• the approaches to these tasks and the professionalism required of today’s educator.

Who should attend
• Those involved in teaching in any capacity eg having to look after juniors, being a contributor to a course or a departmental teaching session, having formal supervision responsibilities, being a course organiser
• Those involved in identifying generic skills for the postgraduate training of doctors

Note: This workshop is very similar to last year’s workshop ‘12 roles of the teacher’ which was oversubscribed. Due to interest expressed it is being repeated in an extended format. Those attending last year would not gain further significant benefit from attending.

Content and structure
1 Introduction to roles (25 min): Ice breaker activity and short plenary with hand out;
2 Tasks associated with roles (35 min): Group activity with feedback;
3 A framework for identifying the competencies required by the clinical educator (15 min): Short plenary with time to study grid and make link to findings of previous group activity;
4 Using the grid (35 min): Group activity with feedback;
5 Courses in teaching from Dundee (10 min): Display of material from a ‘taster’ course through to a Diploma/Masters in Medical Education.

3/2 The quality of medical education and teaching – thema con variatione
Professor Peter Nippert
University of Muenster, Germany

3/3 From MD to academic teacher
Professor Reinhard Putz
University of Munich, Germany

Background
Medical education focusses on knowledge and abilities. Students are faced with a lot of information including general understanding of processes, differential diagnosis and therapeutic consequences. In most European universities, lectures, courses and practical exercises on patients are the preferred teaching elements. Some medical schools have changed to problem based learning (PBL). The effectiveness of the teaching depends on many aspects. One is the student/teacher ratio; another is the structure of the program. However, the education of the teacher is the last in this list. On the other hand, many studies show that the performance and personality of the teacher has the highest impact on the learning effect. This is especially true for lectures and teacher-guided courses, but also in PBL the tutor plays a crucial role in the learning process. In light of this it is surprising that academic teachers are not forced to undergo any kind of didactic training. Only few institutions offer a structured training program for young assistants.

Aim
One of the goals of the workshop is the preparation of participants for the role of academic teacher. The participants should leave the workshop with the insight that academic teaching can become an attractive challenge especially for scientific educated people.

Content and structure
The report of good and bad experiences should contribute to a picture of the present personal situation of teaching staff in many schools. Next, the needs for improvement will be addressed. Then a period of discussion in small groups is planned. In this part a particular teaching situation will be designed and structured: lecture for a large class (more than 100), lecture for a small class (ca. 40–80), seminar (10–20), course, PBL group. Back in the plenary, the results of the sections will be presented and discussed. The preparation for the requirements of an academic teacher should be the goal of this part followed by some suggestions for the structure of a training course for academic teachers.

1 Plenary (ca. 20’): Reflection on the personal state of teaching ability (advantages and shortcomings)
2 Plenary (ca. 20’): Description of necessary teaching abilities
3 Groups (ca. 20’): Structure of particular teaching situations (large lecture, small lecture, course, practical exercise, POL-group)
4 Plenary (ca. 20’): How to prepare an M.D. for education as an academic teacher
5 Plenary (ca. 30’): Elements of a training course for academic teachers.
Feedback and evaluation: essential activities in the learning process (helping students learn to seek continuing improvement - as students and career professionals)

Dr Charles D Puglia, MCP Hahnemann School of Medicine, 2900 Queen Lane, Philadelphia PA 19129, USA

Background
Fear, anxiety, and panic are common reactions to the suggestion that an individual is to receive feedback or evaluation of their work. Often, the perception that self-esteem is about to be threatened elicits a defensive barrier that interferes with communication of information which is intended to improve performance. This view of feedback, perceived as a painful process, has developed because of injurious methods of delivery of evaluative information beginning in childhood and in many cases continuing throughout a student’s formal educative experience. Feedback and evaluative information must be recognized as essential for an individual to succeed at self-directed learning. The learner must be encouraged to seek evaluative comment as a means of continuing intellectual growth and thereby enhancing self-esteem.

Achievement of the objectives of all learning systems such as medical school curricula is dependent upon formative evaluation and feedback as well as summative evaluation. Evaluative methods are especially important in times when curricular change is introduced. Feedback and evaluation is necessary to aid faculty as well as students to clearly define the objectives of the change in terms of the ultimate goal of the curriculum.

Aim of workshop
This workshop will identify attitudes and techniques which faculty can adopt to enable feedback and evaluation to be delivered in a constructive, esteem-building manner. Students will begin to actively seek feedback as an opportunity to continually improve and grow.

Best Evidence Medical Education (BEME): progress report

Chairperson: Professor Ian Hart
BEME Collaboration (www.bemecollaboration.org)

Background
BEME is defined as: “The implementation by teachers and educational bodies in their practice, of methods and approaches to education based on the best evidence available.” In the three years since the AMEE Prague Conference, when the topic of BEME was raised, there has been much activity, leading to the formation of the BEME Collaboration in 1999. The Collaboration aims to promote a culture of the use of best evidence in medical and healthcare professions education, to carry out systematic reviews of the evidence and to dissemination information on best practice. A systematic review is defined as “A review of the evidence on a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant primary research, and to extract and analyse data from the studies that are included in the review.” (NHS Centre for Reviews and Dissemination 2001).

Several international Topic Review Groups have recently been formed to carry out pilot studies, prior to the commencement of systematic reviews of the evidence, in the following areas:
1. The use of feedback in assessment;
2. The use of high fidelity simulators as an aid to student learning;
3. Faculty development;
4. The use of computers in clinical education.

Content and structure
The workshop will be conducted in plenary. First there will be a short introduction to familiarise participants with the issues. Presentations from each of the Topic Review Groups will follow, reporting on issues raised in the early stages of the pilot studies. These involve setting up the review groups, deciding on the research question to be examined, finding and judging the evidence and the format in which the evidence is to be presented. Where appropriate, an insight will be given by the group into the impressions of the data collected to date in each of the areas. The session will finish with an interactive discussion with the audience and it is envisaged that methodological issues will form a major part of the discussions.

Prospective participants might like to refer to the BEME website to gain some insight into the project: www.bemecollaboration.org

East European Task Force

Chairperson: Professor Ioan Bocsan
Iuliu Hatieganu University of Medicine & Pharmacy, 13 Emil Isac St, RO-3400 Cluj-Napoca, Romania

A review of some of the issues facing medical education in East and Central Europe, with contributions from participants.

Making feedback during clerkships meaningful and effective: a workshop for students and teachers

Chairperson: Dr Paul Hemmer
Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda MD 20814, USA

Background
Medical students have concerns that the feedback they receive during clinical clerkships is sporadic, and that it varies in quality. Teachers are not always comfortable providing feedback, and may be uncertain of clerkship goals and expectations.

Aims
Participants will a) gain familiarity with the RIME descriptors, b) improve their ability to solicit and provide feedback, and c) discuss the potential for educational research.
**Content and structure**

In this workshop, we will seek input from students and teachers about feedback during a clinical clerkship. From this discussion, we will present a framework of goals and expectations for medical students on clinical clerkships, known as RIME for Reporter-Interpreter-Manager/Educator. Using this framework, we will explore how students can self-assess their performance, and to use this as a means to solicit feedback from teachers. Teachers will be introduced to using RIME for evaluating students and subsequently providing feedback. We will use interactive discussion, role-play, and teaching cases.

3/8 Concept mapping
Dr Gonul Peker
Ege University School of Medicine, Bornova 35100 Izmir, Turkey

3/9 Effective student assessment: something old, something new
Dr Geoff Norman
McMaster University Medical School, Health Sciences Centre, 1200 Main Street West, Hamilton ON L8N 3S5, Canada

**Aims**
- To familiarise participants with reliability/validity of various tools;
- To introduce some new promising approaches to assessment: Reasoning Exercise;
- Key features; Clinical Work Sampling.

**Who should attend**
This workshop will be of interest to both clinical and pre-clinical teachers.

**Content and structure:**
1. Plenary session (1 hour): Ground rules; Review of various traditional methods; Introduction of new approaches
2. Practice designing new approaches (1/2 hour)
3. Discussion and conclusions (1/2 hour)

Handouts will be provided.

3/10 A bachelor-master structure of medical education in Europe?
Professor Olle ten Cate
University Medical Centre Utrecht and Professor Herman van Rossum, University of Groningen, Netherlands
University Medical Centre Utrecht, P O Box 85060, 3508 AB Utrecht, Netherlands

**Background**
In 1999 the Ministers of Education of the European Union countries agreed upon the so-called Bologna Declaration. This agreement concerns the harmonization of higher education. One element is the restructuring education into two phases: a bachelor (undergraduate) phase of three years and a master (graduate) phase of one or two years. Major reasons to harmonize higher education include international comparability and enhancing exchange possibilities. In the Netherlands, several universities and vocational schools have started curricular changes to implement the new structure, preferably in 2003. Medical schools have been hesitant to adapt their curricula. A national project on The Continuum of Medical Training has been asked to first investigate the possibilities and desirability of this new structure. It may be contrary to current medical curriculum developments, as in innovative schools clinical education is gradually moving to early years of education and being integrated with basic sciences. The BaMa-structure may throw medical education back to a separation of basic and clinical sciences. However, medical education could become too isolated within the universities and too little harmonized internationally, if is does not implement the structure.

**Content and structure**
In this workshop participants from different countries will be invited to (a) briefly discuss the current structure of medical training in their country in a structured format and (b) generate arguments pro and/or contra harmonization of medical education in Europe according to the Bologna Declaration.

3/11 The assessment of poorly performing doctors: experiences from the first three years of the Performance Procedures within the UK General Medical Council
Professor Lesley Southgate, CHIME, London
Dr Peter McCrorie, St George's Hospital Medical School CHIME, University College London Medical School, Archway Campus, Highgate Hill, London N19 3UA, UK

The assessment of poorly performing doctors: experiences from the first three years of the Performance Procedures within the UK General Medical Council.

**Aim**
This workshop will inform participants about the UK programme to assess doctors whose competence to hold a medical licence has been questioned. This is carried out in two phases: peer review of performance in the workplace and tests of knowledge and skills in a clinical skills lab.

**Content and structure**
The workshop will be divided into three sections, each of one hour. The first section will describe the programme and the assessment principles on which it is based. The second section will examine the methods of assessment used in both phases and will also include presentation of data from actual assessments. The third section will describe the recruitment, training and assessment of the performance assessors. Each section will be introduced by an interactive lecture for 20 minutes, followed by group work for 20 minutes and plenary discussion for 20 minutes. Throughout the three hours examples from surgery, anaesthetics, ob&gyn, general practice and psychiatry will be used.
No preparation is needed in advance and handouts will be available.

3/12 What can a general medical journal do for education in medicine?

Sandy Goldbeck-Wood, Assistant Editor BMJ and Dr Ed Peile, Research Fellow in Medical Education, University of Oxford and Editorial Advisor, BMJ
Dept of Primary Healthcare, University of Oxford, Chiltern Waters, 1 Stablebridge Road, Aston Clinton, Bucks HP22 5ND, UK

Background
The BMJ is considering new ventures in medical education and we will put forward some ideas for future ventures in publication. We would like participants’ reactions and ideas for how medical education themes may be developed in a general medical journal.

Who should attend
Anyone with an interest in medical education; graduates or undergraduates, particularly those who read general medical journals.
Session 4  Large Group Sessions

4A Standards and professionalism in medical education

1 Attempt to instilling mindful teaching

Dr Maria Lammerding-Köppel
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The need for staff development programmes and the training of medical teachers in education have been recognized. The areas to be covered in such programmes and the specific teacher competencies and attitudes are often a matter of debate. Intended outcomes and standards of quality must relate to the professional roles of the medical teacher and to the culture of good teaching practice based on consensus. The task for the future is to ensure that we address outcomes that expand the scope of the medical teacher and that are deeply relevant to an optimal professional development.

2 Who is afraid of the didactic wolf? A plea for professionalism in medical education and specialist training

Professor Rein Zwierstra
Institute for Medical Education, Faculty of Medical Sciences, University of Groningen, Ant. Deusinglaan 1, 9713 AV Groningen, Netherlands

In the present era there is no longer a need for expert doctors who can talk enthusiastically about their subject in a teaching setting. Changes in health care organisation and curriculum design call for effective teaching by teachers who operate in a team. Whilst in the world of research peer review is accepted as a standard, it is remarkable that in medical education peer review opinions about each other’s teaching is regarded as patronising or even threatening. The quality of teaching and of curricula will improve significantly if teachers, trained in didactic principles, were to prepare their contribution as a team and reflect with mutual respect upon each other’s participation. Why are medical teachers and trainers afraid of the didactic wolf?

3 What’s good about “Best Evidence Medical Education (BEME)”?

Professor Ralph Bloch
Institute for Medical Education, Inselspital 37a, University of Bern, H-3010 Bern, Switzerland

BEME, like its older cousin “Evidence Based Medicine (EBM)” is likely to meet supporters and detractors. EBM and BEME are often depicted as new religions. The simile is quite apt. Both movements encompass a core philosophy, a set of prescribed rituals and a supporting, hierarchical organization. The central dogmata of both activities derive from a logical positivism with the utilitarian goal of doing more good than harm - one in the practice of medicine, the other in the training of medical practitioners. The rituals pertain to the efficient extraction of valid (both internal and external) evidence from the published literature. The hierarchical organizations, finally, serve the purpose of optimizing economies of scale and fostering consensus on standards of quality within the academic community. Not unlike established religions, EBM and BEME run the risk of blind adherence and assuming the cloak of infallibility. The way we develop and implement BEME will ultimately determine whether it will do more good than harm.

4B International aspects of standards

1 International standards in medical education: what are they and do we really need them?

Dr Andrzejs Wójcjak and Dr M Roy Schwartz
Institute for International Medical Education, 106 Corporate Park Drive, Suite 100, White Plains, New York NY 10604-3817, USA

Physicians are now members of the global community. Created by interlocking economies, a global language, informatics networks and rapid travel, globalization has penetrated science, public health, the environment, law and religion, as well as medicine. Hence, minimal physician competencies must be defined and mechanisms developed to ensure that all medical school graduates possess these essential requirements. Established by a grant from the China Medical Board of New York, the Institute for International Medical Education (IIME) has undertaken the responsibility of defining “global minimum essential requirements” (GMER) for undergraduate medical programs. Developed by international medical experts, GMER consist of knowledge, clinical skills, professional attitudes, behaviour and ethical values. Since GMER alone are not likely to change graduates’ competencies unless they are linked to assessment, evaluation tools for educational outcomes are also being developed. The lessons learned from the pilot implementation of GMER in selected medical schools will be available to the global medical education community.

2 Globalisation of Medical Education: The concept of international standards

Dr. Hans Karle
President, World Federation for Medical Education, Faculty of Health Sciences, University of Copenhagen, Panum Institute, Blegdamsvej 3, 2200 Copenhagen N, DENMARK

The increasing internationalisation of the medical profession raises the question of safeguarding the practice of medicine and medical manpower utilisation through well-defined international standards in medical education. Evaluation of educational institutions and programmes based on internationally adopted standards is an important incentive for institutional improvements and for generally raising the quality of medical education. Furthermore, such standards can serve as guidelines for national or regional agencies dealing with recognition and accreditation of medical schools.
and postgraduate training institutions and educational programmes. In 1998, the World Federation for Medical Education (WFME) launched its project on "International standards in medical education" (Medical Education 1998;32,549-558). A WFME Working Party defined a set of international standards in basic medical education dealing with the structure, process, conditions and outcome, and specified at two levels of attainment: (a) basic standards (or minimal requirements), and (b) standards for quality development (Medical Education 2000;34,665-675).

In the light of comments received from an international panel of advisors and from a number of conferences around the world, the standard document has now been refined and further developed, including guidelines for the implementation of the standards at the institutional, national and regional levels. The concept, and the purpose and rationale for the WFME Standards in Basic Medical Education will be presented. Pilot studies on the value of these standards are now being prepared in the six WFME Regions. WFME is now planning a similar process concerning international standards in postgraduate medical education covering both specialist training and continuing medical education/personal development.

4C Standards and the curriculum

1 Learning can be fun! The student’s experience in a new curriculum

Anke Neuwirth and Johannes Meier
Second year students in the Reformed Medical Curriculum, Charité, Humboldt-University Berlin, Germany

Two years ago 63 students at the Humboldt-University began studying medicine in a reformed parallel track. This is the first attempt in Germany at changing a traditional curriculum. Basic sciences are combined with clinical practice right from the beginning: PBL as the main learning format plus one day per week with a general practitioner, practical and communication skills training and theoretical seminars. Students from the first class will share their personal experiences of new standards in learning, teaching and assessment. A large part of the presentation will be reserved for discussion with the audience.

2 The advantages of longitudinal evaluation of the medical curriculum

Prof. Dr. Reinhard Paßt
Medical School of Hannover, Centre of Anatomy – 4120, Care Neuberg Strasse 1, D30625 Hannover, GERMANY

After implementing modifications in the undergraduate medical curriculum, the outcome should be evaluated. Questionnaires answered by medical students at the end of a term are helpful, but of even greater relevance are evaluations at different times during and after the undergraduate phase. Some examples will be presented to show why and for whom these data are relevant, as well as how the questionnaire should be designed. It will be proposed to perform similar evaluations in different European countries, and also to ask in particular those doctors who have studied medicine in different countries to evaluate their medical curriculum retrospectively.

3 Standards and assessment

Professor Miriam Friedman Ben-David
Centre for Medical Education, University of Dundee, Tay Park House, 484 Perth Road, Dundee DD2 1LR, UK

The important effect of assessment on students’ behaviour and pattern of learning is well documented. The assessment process has a key effect on establishing standards within the medical school. This presentation looks at the relationship between standards and assessment. It explores the links between the two and looks at issues relating to standard setting procedures as part of the assessment process.
The “dos and don’ts” of e-learning in medicine: experiences of a CD-ROM production

P Langkafel*, A Oehlsen, U Arnold and J W Dudenhansen
Charité, Department of Obstetrics, Faculty of Medicine, Humboldt-University of Berlin, Augustenburger Platz 1, 13353 Berlin, GERMANY

In November 2000 the Department of Obstetrics published the CD-ROM “Digital Obstetrics”. After almost 2 years of work we were glad to publish this piece of software with a well known editor in Medicine. We will focus in our presentation on the process of conception and the production of this CD-ROM and other Internet-based courses. What are our experiences? What are - in our opinion - the “musts” of a good production, what are the “nevers”? What did we learn from this process? What are our “golden rules” from this experience to be learnt for different topics of e-learning in medicine? There will be the possibility for a continuous virtual discussion via the Internet:(www.golden-rules.de) The audience and interested people will have the opportunity to add their opinions and to share in the discussion with others digitally.

Online guide to basic surgical skills: http://olc.chirurgie-goettingen.de

S Koenig*, P Wagner, D Zeiss, P M Markus and H Becker
Georg-August-University Goettingen, Department of General Surgery, Faculty of Medicine and University Hospital, Robert-Koch-Str. 40, 37075 Goettingen, GERMANY

The emphasis of medical education in Germany lies in the imparting of theoretical knowledge. During their clinical studies, medical students increasingly have to deal with the major problem of how to gain experience in clinical practice and learn the relevant skills. With this in mind, an online guide is being developed as a teaching aid demonstrating basic skills in surgery to accompany the existing curriculum. The guide is presented as a website, centred around a series of digitised video sequences, photographs and illustrations highlighting the basic clinical skills required in the field of surgery. Examples include blood sampling, IV line management, suture techniques, wound management and general practice in theatre such as scrubbing up, aseptic procedures and use of specific instruments. Student feedback to date is exceptionally encouraging for the further development of the platform, including integration of other fields in medical education.

Standards for an international distributed online case repository

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Teaching cases have been used by medical schools for years as a means to simulate the patient encounter, provide early exposure to clinical problems, and to ensure a consistent educational experience. Recently, many schools have developed online cases to supplement existing coursework. Through the use of emerging technologies, cases may display high-quality multimedia, track student reasoning, facilitate faculty-student collaboration, and even adapt to the student’s educational needs. While schools have created online cases for a variety of purposes, development costs are rarely trivial. Unfortunately, medical schools have not employed the same technologies to share and reuse these costly resources. New technologies could be used to develop case banks that house cases independent of purpose or pedagogy. The authors propose the development of an international case repository and suggest a technical implementation based on distributed systems and open standards such as the eXtensible Markup Language.

Digital study of medicine

U Arnold*, P Langkafel, L Peppel, I Reisinger and J W Dudenhansen
Charité, Humboldt-University Berlin, Berlin Biomedical Exchange Office, Campus Virchow-Klinikum, Augustenburger Platz 1, D-13353 Berlin, GERMANY

Digital media becomes more and more a major force in medicine and medical education. This representative study among students of medicine demonstrates the big differences between varying student samples concerning the use of and the expectations on new media and e-learning. In a sample survey (n=282) using machine readable questionnaires students of the first pre-clinic and the first clinic semester were questioned about their current and future computer and internet use as well as their attitude as regards these subjects. 57.8% of the beginners use a PC and the internet more than once a week while 12.6% do not use computers at all. More than half of the beginners (55%) do not know that they can use internet based learning at all. While only 0.6% of the beginners claim to use CD-ROM for learning purposes this number increases to 23.9% among the students from the first clinic semester. Nearly half of the students wish to see an amount of 16 to 30% for new media and e-learning in the curriculum of the future. The detailed results will be discussed focussing on their consequences for e-learning in the field of medical education.

Electronic learning objects and resource discovery

David A Davies
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A challenge facing many institutions engaged in teaching is to find electronic learning resources to meet the requirements of the curriculum. Electronic learning resources may be clinical images, digital video clips, case scenarios, MCQs, etc. These ‘learning objects’ may be viewed as the building blocks for new web-based...
For a computer-based learning system to be widely usable, it must be possible to tailor the information presented to the learner to match the level of study and topic of interest. To achieve this, it is necessary to describe the content in a way that makes it reusable in a variety of contexts. By applying a standard template to describe structure within topics, specifying associations between concepts, and describing the content using a standard coding scheme, it is possible to produce standalone ‘Reusable Learning Objects’. These can then be filtered by the system to match the learner’s requirements. In an experimental implementation to investigate methods for creating these electronic curriculum maps, a prototype system is being produced covering three areas in neurology, cardiology and dermatology. A web interface allows these sections to be developed concurrently, then delivered to a wide audience.

Session 5B  Evaluation of PBL

5B1  Changing to PBL: does it have an effect on junior doctors’ conceptualisation of communication skills?

P A O'Neill*, S C Willis and A Jones
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In 1994 Manchester Medical School introduced a learner-centred, problem-based learning course, which involves more emphasis on acquisition of effective communication skills. This study explored how Manchester graduates conceptualised communication skills. Twenty-four traditional course graduates and 23 new course graduates were interviewed 3 months into their first job. Graduates were asked to reflect on how well the course had prepared them for being an effective communicator. Interviews were tape-recorded, transcribed, coded and analysed. Traditional course graduates conceptualised communication as ‘talking to people’. Being an effective communicator was described as ‘a personal thing’ rather than something which could be taught or learned. New course graduates conceptualised communication skills as being important for patient outcomes; and as something which could be both taught and learned. A comparison between traditional and PBL course graduates suggests that there are some differences in their conceptualisation of communication skills.

5B2  How do medical students characterize good problem-based learning (PBL) tutoring after a year’s experience?

Gillian Maudsley
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In 1996, Liverpool’s 5-year undergraduate medical (MBChB) curriculum became problem-based. Students’ initial experiences of problem-based learning (PBL) and PBL tutors could influence subsequent progress. Empirical evidence on students’ perceptions of PBL tutors’ role is developing. The aim was to explore how medical students conceptualize good PBL tutors (and learning) in a problem-based curriculum. The subjects were 224 medical students at end of Year 1. A cross-sectional (self-completed questionnaire) survey of mostly open-ended questions explored, e.g.: main advantage/disadvantage of PBL; characteristics of a good PBL tutor. Qualitative data-themes formulated inductively and iteratively, 137/224 (61.2%) responded. Despite diverse views, students mostly highlighted that, e.g.: good tutors should be approachable, ‘knowledgeable’ (without imposing knowledge), encourage participation; and PBL is good for acquiring, retaining, and applying knowledge (yet lack of ‘structure’ can cause concern). The implications of the results will be related to previous literature.
Predicting outcome by behaviour in PBL groups?

Kristin Wigen*, Are Holen, Øyvind Ellingsen and Hansjørg Høhr
Norwegian University of Technology and Science, Department of Community Medicine & General Practice, MTFS, N-7489 Trondheim, NORWAY

In the fall of 1999 and 2000, new medical students at the Norwegian University of Science and Technology were asked to complete these questionnaires: (1) Entwistle’s Learning Style Inventory - 30 items, (2) Braithwaite’s shortened neuroticism scale - 15 items, and (3) Craig’s Locus of Control of Behaviour Scale - 17 items. Additionally, variables included the admission scores and gender of the students. Behaviour in PBL groups was assessed by peers on Holen’s Group Process Evaluation Scale once each term for each student. The aim was to study the correlations between these variables and the academic achievements of the students at their first exams by the end of the first year in June 2000 and 2001. Preliminary findings will be presented and briefly discussed.

Student evaluation of a problem-based learning module into an occupational therapy course

Deirdre Connolly* and Morag Donovan
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“I’m very satisfied with this course. The method of continuous assessment was very helpful and beneficial. I wonder how this volume of material could be covered in any other way”,

“Tiring, inflexible and inconsistent marking”.

These are contrasting opinions of two third year occupational therapy students on their experience of Problem Based Learning (PBL). As PBL encourages open-minded, reflective and active learning (Margeson, 1991), qualities that are highly valued from a university education, it was decided to introduce a PBL module into the four-year honours degree course in occupational therapy. Students were then asked to evaluate the first semester of using the PBL approach. This paper presents the process involved in setting up the module and the quantitative and qualitative results of the initial evaluation.

Evaluation of student performance in the problem based learning (PBL) group

David C M Taylor
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During the course of each semester, students in years one and two of the medical course at Liverpool University complete a self assessment form which relates to their performance in the PBL Group. A form is also completed independently for students by their PBL tutor, and the two forms are compared. If there are differences between the perceptions of student and tutor, then an informal conversation takes place to identify possible explanations. We originally used a form similar to that developed in Hong Kong, where there are five descriptors for each of five domains; participation, communication, preparation, critical thinking and group skills. It rapidly became apparent that we needed to add two other domains – “Evaluation Skills” and “Cross Curricular Links”. This change means that students and staff are required to reflect on what we believe to be the key skills for problem-based learning.

Influence of tutor qualification on test achievement and student evaluation in a problem-based course of basic pharmacology

J Matthes*, B Marxen, R-M Linke, W Antepohl, W Lehmacher and S Herzig
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Increased demand on staff when using problem-based learning (PBL) necessitates involvement of tutors at different stages of medical or non-medical (under-, post-graduate education. To address whether such differences in qualification affect evaluation of PBL by participants or their outcome (test results), we analysed data of a 3½ year longitudinal study performed with 3rd year medical students taking a PBL-course in basic pharmacology. We compared student tutors (undergraduate, >3rd year; n=30), non-specialized professional tutors (physicians, pharmacists or natural scientists during postgraduate education; n=38) and specialized professional tutors (completed postgraduate education; n=26). While evaluation and outcome of student-led groups did not differ from staff-led groups, tutor experience with PBL improved evaluation scores. Interestingly, student tutors as well as non-specialized professional tutors came off badly in some evaluation parameters, however their groups’ test achievement equalled that of specialized professional tutors.

Individual perceptions of group learning and functioning in a problem-based learning programme

Janet MacDonald
Academic Department, Postgraduate Medical & Dental Education, University of Wales College of Medicine, Heath Park, Cardiff CF14 4XN, UK

Drawing on data from a cohort of BSc Occupational Therapy students on a PBL programme, this paper reports on students’ individual perceptions of their own and others’ participation and performance within small group learning. Students were asked to rate the contributions and performance of themselves, other group members and the group as a whole with factors influencing functioning being considered. Questionnaires were completed by students who were then involved in group discussion and subsequently completed individual action plans with the intention of enhancing future group involvement and personal development. Initial findings explore issues such as group development and cohesion, use of ground rules, contextual learning and the role of the group in personal development. Difficulties involved in conducting this type of inquiry will also be briefly discussed.
A course programme evaluation (CPE) is useful to highlight issues for introducing further changes. The aim of this work was to compare the results of the CPE performed in the discipline of Cellular Biochemistry in three consecutive years. The first year students in 1999 (n=199), in 2000 (n=189) and in 2001 (n=173) of the Faculty of Medicine of Lisbon were required to answer a questionnaire anonymously with 19 closed questions. Phi and Cramer’s VC statistical analysis were used. The answers profile for the majority of the questions was similar in the three consecutive years. The main differences were those related to the influence of the teaching process in the assessment methods and in students’ self-confidence. The majority of students were not motivated with their self-evaluation. It is concluded that the course programme evaluation depends on the student population and not exclusively on the changes introduced by the teaching staff.

A national evaluation of the reforms to higher specialist training in the UK: methodological issues

Janet Grant*, Rodney Gale, Mairead Beirne and Heather Owen
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Over the past 5 years, wholesale reform of higher specialist training in the UK has occurred with changes in training structure, processes, infrastructure, assessment, records, post types, endpoint qualification, curricula, selection, standard setting, and monitoring. The Department of Health commissioned a national evaluation, conducted over three years. The evaluation was designed and conducted as policy research, involving 15 researchers with expertise in postgraduate medical education, qualitative and quantitative research methods, management, selection, public sector economics, assessment, and pedagogy. Data collection methods included surveys, consultative groups, interviews, site visits, case studies, documentary analysis and in-depth reference studies. Seven focal specialties were studied. Data for the 20 separate reports of the evaluation were gathered from upwards of 5,000 participants. The evaluation covered costs, organisation, management, funding, change management, assessment, appraisal, educational processes and outcomes, new roles and responsibilities, selection, and effects on service and workload. Methodological issues will be discussed.

Evaluation of PME courses in General Practice in Germany

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Vocational training in general practice in Germany requires 240 hours of accompanying courses, aiming at reinforcing professional knowledge, problem solving abilities and at training in interdisciplinary teamwork and audit. For the participants it has the character of an expensive obligation, with possibly negative effects on intrinsic motivation and demands. The continuous built-in evaluation of courses in Duesseldorf/North-Rhine covers written interviews with participants and teachers, participatory observation, oral interviews and focus groups. In 1999 and 2000 71 seminars were evaluated. 935 questionnaires of participants (response rate 70%), 46 data sheets for participatory observation, 33 questionnaires of 29 teachers and 10 focus groups show that the educational quality increased, while the overall satisfaction of the trainees decreased. Possible reasons for this complex phenomenon are discussed. Organizational aspects influence participants’ satisfaction much more than content of seminars.

The Matrix: a visual presentation of registrar term evaluation

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Evaluation of junior medical officer posts can be hindered by the need to distribute questionnaires, the time required for their completion and by low response rates. Collation and assessment can be time-consuming and the resultant evaluation difficult to interpret. We used a simple evaluation tool for the assessment of registrar terms. Trainees were asked to assess on a five-point scale the workload and the training/teaching value of each rotation they had experienced over the previous two years. We have undertaken a pilot to provide a ‘snapshot’ or audit of the trainees’ perception of the rotations. The evaluation can be performed quickly and the collated results when plotted in a graphical (“matrix”) form provide a powerful visual assessment of the trainee’s perspective of each post. This evaluation can be used to assess the workload of each position to assist in reallocation of workload and to optimise training in each post.

Site visits as a method to assess the educational quality of clerkships

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Clerkships, as part of the training of medical students, are organized in several hospitals. In general, students are content with this training. However, what do we
know about the educational quality of the clerkships? To answer this question we developed a procedure for structured site visits. The visits were conducted by a Visitation Committee on the basis of an assignment of the director of the Institute for Medical Education. Before the actual visit, the committee sent out questionnaires and gathered written information about the clerkships. During the site visit, the committee discussed the educational topics with the groups involved in the programme.

After the procedure the committee concluded that in general the students were trained satisfactorily. However, in the clerkships more educational structure is necessary. Students need to receive feedback on the way they practise their skills and on attitudinal aspects much more frequently and on a structured basis.

### 5C6 Impact of a new curriculum on the clinical competence of medical students at the University of Barcelona Medical School (UBMS)

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UBMS has recently modified its undergraduate curriculum. A group (A) of 44 students belonging to the first cohort (1999-2000) of the new curriculum was compared with another group (B) of 51 students belonging to the last cohort (1998-1999) of the traditional curriculum. The assessment was performed at the end of licensure by means of a multistation OSCE of 17 cases with 22 stations including 10 common cases for both cohorts. Statistical analysis included Cronbach Alpha test to analyse reliability and the result was 0.79, and for comparability t-student test was used. Group A showed better scores, particularly in interprofessional relationships (mean values A vs B: 59.5 vs. 48.6; p=0.001); attitudes (59.7 vs. 41.6; p=0.001); technical skills (70 vs 61.6; p=0.01); clinical knowledge (62.9 vs. 56.6; p=0.001), and clinical judgement (47.2 vs. 42; p=0.001). The new curriculum has improved the clinical competence of last year's students assessed by a multistation OSCE examination.

### 5D1 Detecting rater bias on a measure of spoken English proficiency

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Rater severity can affect the validity of scores and introduce bias that will impact the measurement of examinee ability. Few studies, especially in the area of clinical skills assessment, have examined the effect of rater demographics on rater severity. In this study, standardized patient (SP) ratings of spoken English proficiency were contrasted by SP and examinee characteristics. Two analyses were conducted. In the first analysis, least square mean scores were calculated based on whether English was the native language of the examinee and the SP. Examinees whose native language was not English received significantly lower ratings from the SPs, regardless of the SP’s native language. In the second analysis, data were analyzed based on SP and examinee gender. Female examinees received higher ratings than male examinees from SPs of both genders. The results suggest that the SP characteristics studied had no effect on ratings of spoken English proficiency.

### 5D2 Comparison of communication skills in residency with performance on ECFMG Clinical Skills Assessment

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The Education Commission for Foreign Medical Graduates assesses graduates of foreign medical schools for readiness to enter US residencies using a ten station standardized patient examination. The Clinical Skills Assessment (CSA) tests data gathering,
clinical reasoning, written communication, and oral communication skills, including spoken English. We assessed the communication skills of first year internal medicine residents using trained observers and post-encounter patient surveys in an outpatient clinic setting and compared these results with performance on CSA. Over 250 encounters from about 60 residents who had graduated from foreign medical schools were scored by observers and patients. Moderate correlation with communication skills as assessed by CSA was found. This evidence suggests that CSA is a valid predictor of performance in the first year of residency.

**5D3** ACT: a new computer-assisted assessment (CAA) method for communication-skills of medical students

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CAA of communication skills is innovative and has several advantages: a broad range of communication problems can be covered in one assessment; both the testing and judgement procedures are highly standardised; students can be assessed in large groups without a complex organisation. ACT, developed in our medical school, was used for the first time in April and May 2001. More than 200 third year students were assessed. ACT presents three short movies of doctor-patient encounters. Topics are: history taking, breaking bad news, shared decision making. Each topic is covered by 5 to 10 questions; 20 questions in total. The assessment model of ACT is based on Miller's pyramid (Acad Med 1990; 65:S63-67) yielding four types of essay questions: 1. knowledge, 2. understanding, 3. skill phrasing, 4. integration of skills. Present will be the adapted assessment model, examples of questions, the program design, and results about the feasibility and reliability of ACT.

**5D4** How accurate is lay person assessment of clinical competence of student doctors? The comparison of the assessment of medical students by faculty and standardized patients during the Objective Structured Clinical Examination

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This paper discusses the results of two types of assessment of the students carried out during the OSCE, a performance-based assessment of clinical competence. For the first time in the history of the Medical School in Helsinki a comprehensive OSCE was arranged in December 2000. All participants (n=80) were sixth year undergraduate medical students. The exam consisted of ten stations where simulated consultations with standardised patients (SPs) took place. Professional actors were used as patients to guarantee a similar experience to all students. During the consultation a faculty member assessed the clinical performance of the student and the doctor-patient interaction using a checklist for the assessment of the clinical skills and a communication skills questionnaire. The students were also evaluated by the actors with an assessment form. While some students with low ratings in clinical skills by the faculty scored high on the actors evaluations, none of the students to whom the SPs gave the maximum scores, failed. Inter-station reliability of the SP ratings was considerably higher than clinician rating of communication skills. Also there was a poor correlation between SP and clinician ratings, equaling 0.22. The scores of a single student varied depending on the clinical situation he or she was confronted with. Results and their implications for the future development of the medical students' integrated competence assessment will be discussed.

**5D5** Do simulated patients grade interpersonal skills as well as Faculty?

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Simulated patients (SPs) are being used to assess a number of skills in medical students. The SP may grade students with regard to history taking, physical exam and inter-personal skills (IPS) according to a checklist. Using SPs to grade student performance has been shown to be reliable though it is difficult to assess validity of this method. The aim of this study was to determine the validity of SPs' scoring of student IPS at Mayo Medical School. Third year medical students undertaking a Clinical Skill Assessment had IPS evaluated by SPs and faculty observers. Identical 5-section IPS checklists were completed following each student encounter by the SP and the faculty. There were 8 clinical encounters for each student. The agreement between faculty and SP was very high in most of the sections in the IPS checklist. In conclusion, SPs are able to evaluate students' interpersonal skills as effectively as faculty.

**5D6** The contribution of non-medical assessors to the assessment of poorly performing doctors

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The UK Medical (Professional Performance) Act 1995 gives the General Medical Council powers to assess any doctor on the register whose performance in practice may be seriously deficient, and below the standard for fitness to practise. The Council has stated its commitment to involve members of the public equally in all stages of the development and implementation of the assessment programmes, which comprise peer review of performance in the workplace by a team of three assessors, followed by tests of competence. More than 35 doctors from several disciplines have now been assessed within the procedures. The non-medical assessors contribute equally to the database assembled during the
assessments. We will present the background to their participation; data from actual assessments in general practice, surgery and psychiatry, and conclude with a discussion of the implications for partnership within professional regulation between the profession and members of the public.

5D7  Assessment in the elective clinical rotation: centrally reviewed case reports

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The performance of medical students in clinical rotations is usually assessed by supervising clinicians.

Session 5E  Postgraduate education for general practice/family medicine

5E1  An educational approach to significant event auditing in primary care

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Little is known about the content and educational value of significant event audits (SEA) in primary care. General practitioners (GPs) in the west of Scotland are encouraged to submit a SEA as part of their postgraduate education. Two trained assessors independently mark SEAs and educational feedback is offered to the GP. Of 132 SEAs submitted, 47% involved primarily clinical issues, 29% practice administration and 17% involved both. Main areas of analysis were in disease management (36%), drug prescribing (20%) and communication (32%). Complaints (14%) are not a major factor in prompting SEAs. 68% of SEAs were judged educationally satisfactory by both assessors; 24% satisfactory by one assessor only; and 9% unsatisfactory by both assessors. SEAs judged satisfactory by both assessors were more likely to have involved the implementation of change (P<0.001). Ability to implement change was independent of whether the type of SEA was primarily clinical or administrative.

5E2  Postgraduate education for generalist physicians

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Primary care physicians (PCP) in Venezuela are estimated to be less than 15% of the active medical force. The Ministry of Health and Social Development (MSDS) has prompted the Faculties of Medicine to contribute to the development of primary care by educating physicians with the adequate competencies. We have developed a conceptual model of primary care in a third world country and used it to define the competencies (attitudes + knowledge + abilities + skills) required of PCPs in the relevant areas: clinical, epidemiological, psychological, social, community work and communication. We believe that graduating doctors have not yet adequately developed these competencies. On this basis, a two-year postgraduate course is being designed to further educate these physicians, using Outcome-based Education principles and Task Based Learning as the main educational strategy. This presentation will elaborate on the conceptual basis and design features of the Generalist Course.

5E3  Barriers to change in postgraduate medical education in General Practice

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An intention to find reasons for slowness or failure to develop strategies for personal development plans by General Practice was expressed as a pilot study using modified questionnaire technique. Entrenched attitudes to education in General Practice with excessive reliance on didactic lectures by hospital specialists with little or no input by GPs into design, delivery and analysis of material is making implementation of PDPs and PPDPs slow and difficult. Identified problems include lack of awareness of methods for the determination of learning objectives, ignorance about the employment of modern methods of adult education and a notable poverty of preferred educational resources. Outcome measures are rarely used by GPs.
5E4  The use of video in General Practice Registrar training and assessment

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In 1994 a questionnaire-based evaluation was conducted among training practices in the West Midlands. A 2000 comparative study identified changes in the use of and attitude towards video as a training and assessment tool in General Practice. Areas of interest are future application to GP trainer re-accreditation and the MRCGP examination, and issues of informed consent. Questionnaires combined Likert scales, evaluation scales for levels of statement agreement/disagreement, demographic information and free text comments. Greater frequency of use across most targeted areas was reported, in particular obtaining appropriate consent. Relationships between the general practice trainers’ personal and practice uses of video with their registrars and their opinions about other post-graduate uses of videos are positively correlated. Rank order lists of perceived vulnerable patient groups remained identical over the six-year period. Video for teaching, testing and developing self-awareness is increasingly acceptable to GP Trainers.

5E5  The consultation styles of female GP Registrars with male and female patients

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It is acknowledged that there are differences between men and women in conversation – it is often argued for example that men communicate competitively and women co-operatively. Yet male and female registrars, with patients of both sexes, are trained similarly, and assessed with the same criteria for their Summative Assessment examination. Ten western-dressing female GP Registrars in the South Birmingham area (UK) were videoed with male and female patients, and data analysed using language concordancing software and discourse analysis techniques. Preliminary results suggest that the sex of the patient may be one factor which constrains consultation style, and that the speech-style of participating Registrars is both characteristically “feminine” and co-operative. The fact that key characteristics of co-operative language are both valued in the patient-centred methodology and regarded as typical of female speech has implications for the training and assessment of registrars of both sexes.

5E6  The development, implementation and evaluation of a ‘concordance’ training course

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We report the development and assessment of a ‘concordance’ course. The four day course included building relationships, assessing beliefs, identifying barriers, considering these with patients, formal decision making and treatment goals. Change in knowledge, attitude and skills was assessed using a written exam and double marked simulated surgeries. The eight General Practitioners attending rated the course highly (30/35 Range 27-33). Knowledge improved with True/False scores increasing from 13 to 17 out of 22 (P=0.005), Short Essay from 20.4 to 25.1 out of 45 (P=0.062). Patients’ rating increased from 26.5 to 28.1 out of 35 (ns). Blinded scoring of 48 consultations rose from 14.3 to 16.1 out of 26 (p=0.04 Inter-rater reliability: rho = 0.59 p < 0.001, Internal consistency: a = 83). This work shows that concordance skills can be taught and measured.

5E7  A linguistic study of information-giving in 30 doctor-patient consultations

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The need for patient-centred consultations is well-established. However few linguistic studies have analysed what kind of communication makes patients more proactive. This paper employs a type of discourse analysis developed at Birmingham University for educational settings, now widely used for analysis of organisational language. 30 consultations were analysed according to the IRF (initiation, follow-up, response) model. Eight different types of exchange were identified including the ‘doctor-inform’ exchange, which is used when the doctor passes on facts, opinions and ideas about treatment to the patient. Patient interruptions of doctor-inform exchanges are often met with short answers and little response. However, when doctors responded at length to patients’ questions and checked understanding, patients initiated questions more frequently. The evidence suggests that patients are more likely to initiate exchanges if the doctor checks frequently for understanding and concordance. Secondly, a more informative style of consultation creates more proactive patients.
Session 5F  Assessment

5F1  Objective Structured Preclinical Exams (OSPE): a new test format of summative student assessment in the Problem-Based Learning (PBL) curriculum at the Faculty of Medicine of the University of Bern

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In October 1999, the Faculty of Medicine of the University of Bern implemented a new system of summative student assessment in the preclinical PBL curriculum of medical education. It is interdisciplinary or at least multi-disciplinary, and allows assessment of knowledge, skills and attitudes. About half of the exam consists of traditional multiple choice questions (MCQ). The other half has been replaced by the OSPE, a new test format allowing assessment of how well students understand, apply and integrate their knowledge, and how well their data interpretation and communication skills are developed. It is analogous to the clinical counterpart, the OSCE. During 2 – 2 1/2 hours students rotate through a series of stations consisting of interdisciplinary oral, structured oral and written exams. Evaluation of the first cycle of assessment revealed high reliability for both the traditional MCQ-exam and the new OSPE (Cronbach-alpha > 0.8).

5F2  The quality of an extended-matching multiple choice examination

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Last year we reported the development of an extended-matching multiple choice test for final year medical students at K.U. Leuven. Extended-matching questions (EMQs) start from a case and have one correct answer within a list of 7 to 26 alternatives. Indications were given for the reliability and validity of the test. This year two parallel exams of 200 EMQs were constructed and solved on separate occasions by respectively 168 and 178 students. In contrast with the test, which lasted half a day, the exam took a whole day and the students were prepared for question format and content. Feasibility, reliability and validity seemed to be indicated and will be reported. In the discussion of feasibility attention will be paid to the possible influence of fatigue and growing familiarity with the question format on the scores. Face, content and criterion validity will be evaluated.

5F3  Evaluation of a five-dimensional assessment strategy within a problem-based learning medical curriculum

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This paper reports findings from an evaluation of a problem-based learning (PBL) assessment strategy within a new medical curriculum. As there is little published material on PBL assessment for medical students, it was decided to develop a new strategy. As a result, a five dimensional assessment strategy was developed. The five areas used to assess learning were: student attendance; the production of learning objectives; input into group work; an individual written assignment and a verbal assessment of progress. To obtain a comprehensive understanding of issues linked to this assessment strategy a multi-method evaluation was undertaken. Questionnaire and interview data were collected with students and tutors to explore their views and experiences of this assessment strategy. Findings from this work indicate that, although students and tutors consider this assessment strategy to be of value, problems around assessment inconsistency and the weighing of these different dimensions need further development.

5F4  A preclinical exam to assess the networked structure of knowledge of basic science in the Universidad Nacional de Cuyo (Argentina)

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The new curriculum promotes the acquisition of a networked structure of knowledge. Students must pass a Preclinical Exam in Basic Sciences before going into clerkships. This exam has been administered twice already. Its format was as follows: Four complex clinical cases in 2000 and eight cases in 2001 were followed by a number of questions dealing with the basic science subjects. Results showed that: 97.1% (2000) and 94.5% (2001) of the students passed. Reliability, measured by the Cronbach alpha coefficient: 0.867 and 0.830; mean scores: 73.27% and 70.20%; standard deviations: 8.77 and 8.08. The results allow the following conclusions: 1) The format of the exam seems adequate to assess the acquisition of a networked structure of knowledge. 2) The new curriculum promotes this kind of knowledge. 3) Further research must be done, including a control group educated in a traditional curriculum.
5F5 Predictive value for academic performance of two assessment devices applied to medical students

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872 students admitted in 1998 to the National Autonomous University of México Medical School answered a learning strategies and study habits questionnaire, as well as a diagnostic exam testing for background knowledge on Physics, Chemistry, Mathematics, Biology, Spanish, English, and General Knowledge. Our aim was to follow up their academic performance during their first two years (basic sciences) at Medical School, and to compare their average grade score with the results obtained on the questionnaire and the diagnostic exam (predictive value). Results showed a weak but positive association with three of the ten areas of the questionnaire: learning strategies, preparation for the exams and problem-solving skills. A statistical significance and a positive correlation were found in the diagnostic exam with General Knowledge, Spanish, Biology and Chemistry.

5F6 Self-assessed clinical skills levels of newly graduated physicians in relation to an intended curriculum

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We have explored the degree of overlap between an intended curriculum and the learned curriculum concerning clinical skills. In 1999 we conducted a Delphi-study in which 52 experts reached consensus on skills levels for 210 practical clinical skills to be attained during undergraduate medical education. In summer 2000 we mailed a questionnaire listing these 210 skills to the 226 just graduated Danish physicians. They were asked if they could meet the minimum skills level for each of the skills listed. None of the responders met the minimum of all the 210 skills. On average the responders met the minimum of 74% (155) of the skills. We concluded that newly graduated Danish physicians have gaps in their clinical skills. Making checklists and stating learning objectives is recommended as a necessary but not sufficient step. Therefore we are trying to develop a bottom up strategy for the curriculum design process.

5F7 The dynamics of knowledge structure of graduating medical students based on results of the Medical Licensing Examination

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The licensing examination for medical doctors (MLE) in Ukraine is undergoing its last year of piloting. However, MLE results are already taken into consideration during final exams, thus providing a certain motivation for the students. They are also used as part of medical schools’ rating, providing motivation for schools as well. For better preparation and self-assessment of students, the pretest is administered prior to MLE using the actual test MLE materials from previous years. Based upon pretest results students can build their intensive training to MLE in 1-2 weeks. Current research investigates the difference in knowledge structure between pretest and actual test results and possible sources of influence on such difference and dynamics of knowledge structure between the two parts of the licensing examination.

Session 5G Outcome-based education

5G1 The Scottish Learning Outcomes Project Phase II - Assessment: “the proof of the pudding”

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Following the successful completion of Phase I of the Learning Outcomes Project the Scottish Deans’ Medical Curriculum Group (SDMCG) sought to maintain the momentum created by this collaborative work and in addition, we considered it essential to demonstrate our assertion that the Learning Outcomes are a useful and practical tool in undergraduate medicine rather than purely theoretical. With this in mind we decided to test the robustness of the outcomes by looking at their assessment. We established several working groups - each assigned different outcomes - to consider the overall implications for assessment, identify assessment tools, develop guidelines and establish the cost of required resources. The groups began work at the beginning of October 2000 and have until the end of May 2001 to complete their task. Already there has been an unprecedented exchange of knowledge and ideas and some useful and practical suggestions have emerged.

5G2 Recent developments in an outcome-led curriculum

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This paper reports on current developments in the MChB at the University of Birmingham and discusses
the relationship between the outcome structure of the course and current change drivers, which include preparation of a programme specification for QAA. The nested outcomes that have been a feature of the current curriculum since its inception in 1996 are currently being reviewed. In addition to revalidation of outcome content at course and module level, this will involve fundamental restructuring of the outcome set. The current ‘tree’ structure (in which a number of detailed module outcomes contribute to a single year outcome and thence to a single endpoint outcome) is to be replaced by a ‘net’ structure, enabling cross-contribution and emphasising horizontal as well as vertical integration. Links between formal teaching and outcomes will be supplemented by links from learning opportunities. The benefits and potential pitfalls for learning and assessment will be discussed.

5G3 A new instrument of curriculum development: curriculum as a function of professional outcomes

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Under a national program of development of new standards for higher education, medical educators face the need to work out the new professional descriptions, new curriculum and new diagnostic tools for Ukrainian medical schools. In the first phase an expert team has developed the professional description of a doctor expressed in terms of outcome skills that should be possessed by the medical graduate and in terms of relevant lists of pathologies, emergencies and laboratory investigations. Also, earlier there was developed the test blueprint for the medical licensing examination that describes the medical professional in terms of knowledge which was structured by pathologies, by subject and by medical tasks (prevention, diagnostic, treatment, etc). In the second phase, the curriculum is being constructed as a function of professional description and test blueprint, demonstrating the misfit between the scope of desirable final outcomes and regulated time for their mastering.

5G4 Focusing on learning outcomes for the Preregistration House Officer (PRHO) year

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The General Medical Council’s document ‘The New Doctor’ outlines areas in which new medical graduates can expect to develop during PRHO training. The document not only emphasises the development of clinical skills and knowledge, but also the wider aspects of communication, disease prevention and the role of the doctor within the health service. Are PRHOs being given the opportunity to develop in all these areas? This paper describes the perceptions on this issue from those closely associated with the delivery of PRHO training. The study is part of a larger project which aims to specify the expected outcomes for the PRHO year. This paper focuses on a questionnaire which was used to explore the views of doctors in training, consultants and nurses on the importance given in reality and ‘best practice’ PRHO training to key learning outcomes. Findings showed that there was a desire for more emphasis on all the outcomes in PRHO training, although some need to be given more prominence if ‘The New Doctor’ is to be properly implemented.

5G5 The ACGME Outcome Project: a model resident assessment system

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As a part of its Outcome Project, the Accreditation Council for Graduate Medical Education is developing conceptual models of dependable assessment systems for residency programs. The models are intended as guidelines to assist programs in meeting new accreditation standards for evaluating residents’ attainment of the ACGME’s general competencies. This presentation will describe the development process for the models and an example model. Development steps include Outcome Project Advisory Group work and feedback from experts and residency program directors. The model consists of general principles and features, assessment approaches for each competency, and example assessment methods. The recommended assessment approaches include: (a) tracking of learning objectives attainment; (b) focused assessment of patient care by supervisors; (c) ratings of professionalism and communication skills by patients and professional associates; (d) standardized test assessment of medical knowledge; and (e) portfolio assessment of practice-based learning and improvement and systems-based practice.

5G6 Development of an outcome-based clinical curriculum at International Medical University (IMU), Malaysia

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Eight major outcomes were identified for our new clinical School. The outcomes form the basis to reflect the competencies expected of the IMU graduate. This paper evaluates how our undergraduate curriculum was developed with the aim of achieving these objectives. One hundred and thirteen study-guides, the community and family case study (CFCS) and the learning portfolio formed our core curriculum. The “selectives” complimented the core. The IMU curriculum has adopted task-based learning, which is a continuum of PBL undertaken in the earlier phase. The study-guides based on various tasks identify how the 8 outcomes can be achieved and the outcome measures. The CFCS consists of students adopting and visiting a family in the community for two years. Specific objectives guided by “themes” have been identified for each visit. The students are required to develop a portfolio consisting of case summaries, case reports, projects and maintain a logbook.
An evaluation of the internal validity of specific learning outcomes in phase II of a revised undergraduate medical curriculum

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The objective was to undertake a formative evaluation of part of a revised undergraduate medical curriculum by determining the degree of congruence between specific and exit outcomes. A cross sectional case-study utilising document analysis was carried out. 1510 specific outcomes from 13 modules were compared for congruence with each of 32 exit outcomes. 1495 specific outcomes were considered congruent with exit outcomes. Between 0-68.9% of all specific outcomes were considered congruent with any given exit outcome. Three exit outcomes were addressed by >=15% of specific outcomes: two addressed lower order cognitive outcomes. 27 exit outcomes were addressed by <5% of specific outcomes, 8 by 0%. Student assessment based on presently formulated specific outcomes might not indicate the development of students towards achievement of the exit outcomes. Strategies should be developed to ensure increased congruence between specific and exit outcomes in future before evaluating the relationship between specific outcomes and assessment.

Session 5H  Educational strategies/curriculum planning

Structural changes approaching medical education in The Netherlands

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Medical schools in the Netherlands have been or are changing their curricula for the last decade, because of internal educational insights and/or external quality control. Recently other factors have emerged at a national level. Calculations of medical manpower planning have indicated the need for a rapid increase in medical school enrollment, potentially affecting the medical training - undergraduate student education plus specialty training. Rethinking the transition from medical school to specialty training has started. Can it be more efficient and smoother? The Bologna agreement among EU governments further dictates a complete new structure for higher education with a bachelor and a master phase. Should all these factors lead to further reform of medical curricula? Possible consequences for medical training will be discussed and reactions to our paper from other countries are encouraged.

Implementation of a PBL-Based Curriculum

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In 1997 we started a new basic medical education curriculum. It is structured on three preclinical years in a hybrid model that includes, from the first year, integrated scientific courses, PBL, lectures and lab working, longitudinal courses on Patient/Doctor relationship and Preventive Medicine. Learning assessment is continuous and through final written exams at the end of each course. There are three clinical years including the one-year rotating internship and the training takes place in in- and outpatient settings. Comprehensive examinations are scheduled at the end of preclinical and clinical years. Some effects of change are curriculum flexibility, basic and clinical integration, teaching-learning process extension, tutors’ role development, new assessment criteria and dropout rate reduction. Resistance to change was strong in some areas and in five years it has decreased, according to faculty and students’ opinions recorded in the process of Institutional Evaluation for Accreditation, which is now taking place.

An overview of the implementation of curriculum 2001 at Nelson R Mandela School of Medicine, University of Natal

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In January 2001, the Nelson R. Mandela School of Medicine implemented Curriculum 2001, a 5-year problem-based, student-centred curriculum designed around common adult and paediatric disorders. The 200 first year students from diverse social and cultural backgrounds learn by tackling problems or cases in small groups that meet twice weekly under the supervision of a trained facilitator. Problems are grouped into multidisciplinary thematic modules. At the first meeting, students identify and formulate learning goals. After self-directed study, they report back at a second tutorial. The curriculum consists of compulsory (small group sessions and skills) and voluntary (practicals, large group resource sessions, etc.) components. Student progress is assessed formatively (end of module test) and summatively (Progress Examination). Each module is evaluated to determine whether stated goals are being achieved and whether facilitators are performing. The preliminary results from Module 1 are encouraging, with both staff and students having embraced the new learning pedagogy.
5H4  Self-directed, self-organized case-based-learning in final year students

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The objective is to promote self-directed learning and to train interdisciplinary teamwork in final year students. Final year students from different medical departments meet to discuss a self-selected case on their ward with a modified case-based method. The roles of tutor and presenter are played by students of the same peer-group. New tutors are trained by their predecessors. One teacher supervises the process. Because of the different background of students, everybody contributes his own experience of the respective internistic department. The close relationship to everyday work and active involvement of students increases the motivation to learn. The students realize the advantages of well-prepared and presented cases for the whole learning group. Evaluation of the tutorials showed good results concerning engagement of tutors and learning-atmosphere. It is concluded that self-organized peer group learning might be an additional model of case-based learning in advanced students.

5H5  Changing to ‘self-induced learning’ in a speech therapy department

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The Speech Department of the Arteveldegoschool changed its curriculum from a traditional teacher-centered towards a more student-centered educational system. Because of the apparent differences with PBL, we prefer to define our new system as ‘self-induced learning’. One third of the content of the original theoretical courses was transformed into different types of tasks which are dealt with by the students in group sessions and under the supervision of a teacher. This supervision is mainly focused on the process of working and studying together in an efficient way. The project is gradually implemented over the three years of the curriculum. Students themselves as well as staff members and external professionals and organisations were consulted during the whole process of this curricular change. All of them also took part in the continuous evaluation of the project during the first year.

5H6  Student participation in the organization of education at a medical school - a comparison of two South African cases

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The political democratization of South Africa caused the international community to open up - trends and innovations in education worldwide had therefore a significant impact on training in South Africa, resulting in curricular reform. Pretoria and Stellenbosch were the first medical schools to change - student participation became a key element to drive this change. The Pretoria medical school implemented a problem-oriented integrated model and Stellenbosch emphasized a core curriculum with certain key elements (integration, clinical relevance, stated outcomes). At both schools, students were utilized as important participants in all committee structures. Both schools went along the route of implementing the early years while developing the later years at the same time. Thus students played a major role in the continuous improving of the standards of training, as well as the effectiveness of the changes. This led to students becoming an integral part of the management of the faculty as a whole.

5H7  Preparing the way: encouraging clinical tutors to be co-producers in the learning process

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In year 3 of Glasgow University’s new student-centred problem-based curriculum, students receive 20 days, one day per week, of structured “Clinical Practice”. GPs and hospital tutors provide this on alternate weeks. Clinical Practice in the Community (CPC), an Innovative course of community based education, comprises:

1 Student Consultation Surgery: supervised personal consulting;
2 Signs and Symptoms Surgery: history taking and examination practice;
3 Longitudinal Care Project (LCP): students undertake detailed assessments of patients with chronic illness. The LCP contributes 20% to summative assessment.

From CPC’s earliest iterations, 80 GP tutors have been involved as co-producers. Using small group workshops, questionnaire surveys, telephone discussions, and a 2-day staff development programme, academic staff and tutors have worked together to design and develop the course. The course and its clinical tutors are highly evaluated by students and external examiners alike. We believe co-production is an essential part of curriculum design.
Session 51  Educating the educators (2)

51 How to help clinical and multimedia staff develop joint programs

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As medical education courses use multimedia based modes of delivery more, it becomes vital that clinical and multimedia staff understand each other’s frames of reference. They need to work effectively together to produce programs which meet the needs of students in a timely manner by recognising, defining and overcoming the problems that occur. The project being used as an illustration of how to manage these problems is the development of a web based program to teach Rational Test Ordering to postgraduate year 1 & 2 doctors for the Postgraduate Medical Council of New South Wales. The particularly useful techniques were the development of a detailed storyboard preceded by an exhaustive needs analysis, especially to the project manager who was a clinician moving into multimedia education. The presentation will give examples of the problems and their solutions especially those relating to improving communication between clinicians and multimedia staff.

512 “Getting Started in Clinical Teaching” - a staff development initiative

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Enabling clinicians to fulfil their clinical teaching role necessitates support mechanisms which facilitate linking enthusiasm for student-teaching to the requirements of a structured curriculum. “Getting Started in Clinical Teaching” comprises instructional booklets supplemented by a two-day course providing a combination of educational theory and practical instruction. It aims to support clinical teachers in wards, out-patient clinics and the Clinical Skills Centre. Information on curriculum construction, adult learning and curriculum outcomes is provided, together with practical experience of learning resources available in these venues. The course includes content-preparation, delivery mechanisms, models for organising student/patient interactions and the role of constructive feedback. Workshops are used to construct clinical teaching sessions using the approaches described including simulation, role-play and self-video. Self-critique and peer review are encouraged. Areas of potential resistance to change are discussed. The “Getting Started” booklets summarising keypoints are suitable for wider dissemination.

513 Governance in medical teaching: pilot study

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Quality in tertiary teaching is increasingly important (McLean, 2001) and it can be linked to the government policy of improving medical practices through governance (Scally & Donaldson, 1998). A checklist for governance was developed to investigate its theoretical validity (Cohen & Manion, 1989) for medical educators. Random sample [20%, n=12] of postgraduate educators in a medical college completed the checklist using a five point Likert scale and discussed its validity compared to the literature, their experiences and governance issues. Respondents judged the checklist to assess governance had high construct and content validity. They easily identified tasks they aimed to achieve to provide quality teaching. Checklist issues of infrastructure, coherence, culture, appropriateness of tasks, and systems to assess performance were evaluated positively. There was high theoretical validity in this setting. Further research is needed to test the validity and reliability of these results.

514 The role of an education unit in health professional education: proactive or responsive

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The teaching of health professions at The University of Auckland has undergone significant change in the last few years. The transformation has been from a medical school to a multi-professional Faculty of Medical and Health Sciences. At an undergraduate level medical, nursing, medical science and health science students now share learning opportunities. In order to support learning and teaching across the Faculty and establish best practice for curriculum, learning, teaching and assessment a multi-professional unit has been established. This presentation describes the goals of the Unit and identifies the tension between being responsive to individuals and groups and being proactive through setting an agenda for educational development within the Faculty. Potential conflict between the roles of curriculum management, monitoring and appraisal, leadership for change and research are discussed. Conclusions are drawn about the purpose and value of such centres in a multi-professional environment.
Beyond teacher training: the construction of a faculty development strategy

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In Portuguese medical schools the pedagogical preparation of faculty members has been a neglected enterprise. Furthermore faculty are constantly being asked to assume new educational roles for which they have received no specific training. Thus formal faculty development programmes are becoming more and more vital. The aim of this presentation is to describe the institutional strategy of our Medical Education Department, established in 1996, concerning: teacher training workshops for junior and for senior lecturers; Journal clubs and sharing good practice sessions; Working sessions with the teachers - rethinking the teachers’ assumptions about teaching and learning; discussing curricular issues; designing and developing specific educational and evaluation materials, providing educational feedback. More than isolated courses on “teaching how to teach” we aim at a real, comprehensive and structured staff development strategy in which subject matter and educational experts can work together avoiding isolated discipline knowledge and contributing to a systematic improvement of teaching.

The profile of the perfect teaching professor

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The aim of the study was to assess the characteristics of the perfect teaching professor from the perspective of postgraduate trainees in obstetrics and gynaecology. A written interview was sent to 120 trainees. The interview contained 3 questions such as: ‘What is your advice to improve your teaching professor?’ The answers were subsequently divided in three categories: knowledge (the head), practical skills (the hands) and attitude (the heart). 74 trainees responded. 74% of the answers given fell in the heart category, 23% in the head category and 3% in the hand category. From the perspective of trainees in obstetrics and gynaecology the perfect teaching professor is the king of positive feedback and has personal interest in the trainee. The perfect teacher has good knowledge and average skills. It is recommended that the teaching professor should appoint a stimulating tutor with interest in the social aspects surrounding the trainee.

Evidence retrieval in medical education: obstructions and opportunities

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With the ever-increasing emphasis on best evidence in medical education it is imperative that researchers and practitioners have full access to the evidence in order to reduce bias. The various factors impeding evidence retrieval in medical education will be outlined, and the problems inherent with database indexing will be highlighted with the results of a study of comparative search strategies. By examining the search strategies’ rates of precision, sensitivity, and specificity it can be shown that the major databases containing relevant peer-reviewed studies (Medline, Embase, ERIC) are not indexed for effective searches in medical education. Presently there is no existing database or search tool that provides the conceptual context required for evidence retrieval for medical education. Alternative approaches to compensate for current inadequate indexing will be outlined, as will possible future models that could resolve existing problems and provide analytical tools for the evidence-based research and decision-making of tomorrow.

Session 5J Education and cultural diversity

The development and evaluation of a programme to teach cultural diversity to medical undergraduate students

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The study aimed to assess any attitudinal change in students following teaching on cultural/racial diversity using a previously developed questionnaire and whether the teaching enabled the learning objectives to be met in a measurable way. Students completed a questionnaire designed in a previous study at two stages; the first before the component on cultural diversity was delivered and the second after the sessions on cultural diversity. The time interval between stage one and two was one week. The cultural diversity component was developed using a range of sources. 140 out of 181 (77.3%) students completed the questionnaire at both stages. The findings include statistically significant changes that reflect more “positive” attitudes about cultures coming together and about specific cultures. The study indicates that attitudes changed over the period of teaching. There is, however, scope for further development of measures to enable attitudinal shifts to be measured.
Aboriginal health: a tool in the process of reconciliation?

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The inclusion of culturally appropriate, relevant and academically sound content and practical experience in Aboriginal Health is an important tool in the process of reconciliation in Australia. The inclusion of Aboriginal Health content also serves several other purposes. It recognises the importance of Aboriginal Health in Australian society and also provides Aboriginal students with a sense of belonging. It can also assist in attracting and retaining health professionals to work in Aboriginal communities and provides all students with an understanding of cultural practices and beliefs of patients from other cultures. We aim to outline the Aboriginal Health content for health professional students at the Faculty of Medicine and Health Sciences, Newcastle, Australia. We will present an innovative, specifically designed multimedia resource that is used to orientate students to Aboriginal History, Cultural Awareness, Aboriginal Health and working with Aboriginal organisations.

Valuing diversity: the effectiveness of a roleplay workshop as part of a newly introduced community-based diversity module

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Learning about the diverse needs of people with disabilities, deprivation, homosexuality or minority ethnicity is challenging. We run a “diversity” course where students interview individuals, visit community organisations and explore issues raised in seminars. Evaluation showed that some viewed these issues as common sense. A workshop using trained, standardised patients was introduced into the module. Specific diversity scenarios were enacted and students then reflected on their personal reactions to these in small groups. Students completed a questionnaire evaluating the impact of this workshop. A cultural discourse analyst observed the scenarios and group interaction. 197 (60%) students completed the questionnaire (20% non-attendance). Students rated the workshop very positively. It proved an innovative experience, which challenged their own prejudices and added further personal reality to their community experiences. Reasons for this will be discussed. This interactive learning model proved most effective in encouraging students to explore their personal approaches to diversity issues.

Using negative role models positively

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The influence of the negative role model will be presented. The main aim of the study was to consider the issue of gender and role models for women in medical education. One investigator (SEG) carried out semi-structured interviews with 8 undergraduate students and 10 female doctors. A question asked was “what characteristics of role models influenced you during your medical education?”. The importance of role models was acknowledged. The positive and negative attributes of role models will be discussed with particular reference to the positive effect of negative role models. Role models appear to be related to the self-identity of the student, and negative attributes may be influential in a positive as well as a negative way.

What factors influence underrepresented minority (URM) students in their choice of medical schools?

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This study investigates specific factors influencing underrepresented minority students’ (URMs) choice among medical schools. Quantitative and qualitative pre-matriculate data were gathered from all applicants to the University of Illinois at Chicago College of Medicine (1999/2000-2000/2001). Applicants were classified both by ethnicity and student groups listed as follows: interviewed and denied (ID); interviewed, accepted and matriculated (AM); and interviewed, accepted but declined the offer (AD). A series of Chi-square tests of independence and t-test were performed. MCAT scores were significantly higher for the AD group, whereas GPA was statistically different only between the ID and AD students. Particular choices such as the prestige and affiliation of undergraduate institutions and medical schools, multiple acceptances, and choices among multiple acceptances were also statistically dependent on student groups and ethnicity. Distinguishable trends exist regarding the selection of a medical school that follow either student ethnicity, or entrance categorization.

Education for professionalism in medicine

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One of the themes for this conference is professionalism in medical education. The concept of professionalism in medical practice as distinct from medical education is discussed along with what constitutes professionalism in current medical practice in Australia. The question is proposed that unless medical education addresses the issues of professionalism then it is unrealistic to expect young doctors to exhibit so-called professional behaviour in their practice of medicine. The authors draw on their long experience in health administration and health education.
5J7  
Characteristics of students admitted for the medical course at the Faculty of Medicine of Ribeirao Preto, University of Sao Paulo, Brazil

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In order to determine some characteristics of the medical students, a standardized questionnaire was applied to 96 students admitted in 1994 and to 98 students admitted in 2000. The results were: age at admission: 18 years or less (62.8%); number of previous applications: 1 (64.9%) and >1 (13.4%); previous experience in other university courses: 5.1%; father with university degree: 76.8%; mother with university degree: 53.1%; students who have parent physicians: 19.5% (other relatives physicians: 39.5%). 38.5% of the students decided to apply for medicine between the ages of 14 and 16 years and 30.5% decided between 10 and 13 years. The disciplines of better performance during the high school were Biology (91.5%), Chemistry (78.2%), Physics (77.5%) and Mathematics (77.5%). The reasons given for application to Medicine were: liking Biology (45%); personal achievement (30%); to help people (23%).

Session 5K  
Contexts for learning

5K1  
Clinical education in the health care professions: a critical analysis of the literature

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Clinical education is an integral component of medical education, providing an essential bridge between the academic and clinical environments. A soft systems methodology provided a conceptual framework for structuring an analysis of clinical education. The search encompassed all major databases and manual searching of key journals for healthcare professions. Content analysis identified emerging themes, and informed the sub-divisions of the analysis. Key themes included: balance between theoretical and clinical course components, timing of placements, assessment, models of placement, supervisory process, and roles of the clinical educator and the university tutor. The analysis identified a paucity of good quality research, with both theory-practice and literature-practice gaps in existence. The literature also highlighted the necessity for change and the need to develop theory and research. The findings reflect that a structured approach to address the issues raised by clinical education at individual profession and interdisciplinary levels is perhaps required.

5K2  
“Contracts for Learning”: project to improve the quality of attachments at a District General Hospital

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Our District Hospital serves a mainly rural population of 160,000 and has good links with local GPs and community hospitals. Undergraduate medical students come for various attachments, mostly from Bristol University. Often they have no clear idea what they want from the attachment, and sometimes we have no clear idea what to teach them. “Contracts for Learning” is a new project based on a model already used here for nursing students. We email students four weeks before their attachment. We provide detailed profiles of teaching staff in the hospital and primary care; also particular departments, GP surgeries and community hospitals. This amounts to an extensive menu of choices (including multidisciplinary modules offered to healthcare students). Students then submit a form detailing their learning requirements. We then produce a “Learning Contract” specifying what learning experiences we will provide. We will be presenting our early experience of this project.

5K3  
Does the dedicated teaching environment in ambulatory care improve acquisition of learning outcomes?

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Current trends in undergraduate medical education are away from traditional ward-based learning to ambulatory care teaching. We wanted to know whether students gain more learning outcomes from a dedicated ambulatory teaching environment than a conventional outpatient clinic. A comparative evaluation study using a semi-structured student questionnaire and a structured patient questionnaire was performed. Surprisingly, results indicated the learning environment and organisation of the teaching were rated equally. However, more learning outcomes were achieved utilising the Ambulatory Care Teaching Centre (ACTC), but each venue demonstrated particular strengths with regard to individual outcomes. The level of patient satisfaction in the ACTC was high, implying patient care was not adversely affected utilising this setting. This information will inform practice for the content of future teaching sessions.
**5K4** Could we improve on what patients our pediatrics students saw in outpatient clinics?

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For the last two years we have registered every contact of fifth year medical students with pediatric outpatients. In 1999 we found that exposure to pathologies included in the contents for the rotation ranged from 43.5% to 71.7%. In year 2000 an intervention was made with the students’ tutors to increase their awareness about the need of contact with more pathologies. Our objective was to check if such intervention would improve on the deficiencies detected in 1999. In year 2000 six student groups attended 50 sessions in outpatient clinics. Patients were registered with up to three diagnoses, which were compared with the 46 pathologies included in our learning objectives. Patient encounters ranged from 38 to 127 per group. Exposure to pathologies ranged from 43.0% to 80.4%, which was similar to what was observed in 1999. Correlation was found between the number of patients seen and contact with more pathologies. A briefing session for tutors did not improve the completion of the rotation objectives. We have to keep assessing what is going on in clinical rotations.

**5K6** Clinical skills training needs of final year medical students and PRHOs - a comparison

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We compared the clinical skills training needs of final year medical students and PRHOs. We surveyed 257 final year medical students undergoing clinical skills training, including a ‘Harvey’ cardiac patient simulator and communication training. Then, 22 PRHOs completed a questionnaire assessing training needs to plan clinical skills teaching. The most frequent student revision requests were all commonly encountered OSCE stations; catheterization, suturing, ophthalmoscopy, IV fluid management and breast examination (100%, 95%, 79% and 58% of student sessions respectively). By contrast, PRHOs requested training on infrequently performed skills (joint aspiration, pneumothorax aspiration, central vein cannulation) or common but complex skills. Self-assessed training needs of final year medical students reflect impending OSCE assessment, whilst degree of exposure and skill complexity drive training needs for the PRHOs. This suggests some adjustment in student skills training and the need for further skills training sessions for PRHOs.

**5K7** The impact of a precepted diabetic foot care program

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Diabetes is a growing international health problem that too often leads to foot amputation. Over a two summer period, 156 preclinical students in the Texas Statewide Family Practice Preceptors hip Program screened the feet of more than 300 diabetics, 30% of whom had loss of pedal sensation. Screening was accomplished with the Semmes Weinstein 5.07/10g, monofilament. Students also taught these patients diabetic foot care. From the analysis of the copies of the patient evaluations submitted to us, we found that patients whose age was greater than 60 years and patients who received their care in rural settings were more likely to have a greater number of foot problems than those patients who were younger and those who received care in metropolitan areas. The students’ participation in diabetic screening and patient education has saved preceptors time and is considered helpful by patients. This program is transferable to other settings.
**Session 5L  Evaluation of multiprofessional education**

**5L1  The benefits of a multiprofessional education programme can be sustained**

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Improved understanding by third year medical students about the professional roles of doctors and midwives in the care of labouring women following a multiprofessional education programme have previously been reported (Mires et al, 1999). Following a clinical attachment in the fourth year, the previously observed changes in awareness of professional responsibility were maintained in the same group of students and in some areas enhanced. We believe that a short multiprofessional course early in the medical curriculum can change awareness of professional responsibility. Further, we have evidence that these attitude changes were maintained and enhanced following a clinical attachment later in the educational programme. This reinforcement of multiprofessional experiences may enhance working practice after graduation.


**5L2  Self-directed multiprofessional continuing medical education with facilitators: an experiment in four European countries. The Belgian story**

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In order to further implement fundamental options like self-directed learning, multiprofessional education and case-based learning, Continuing Medical Education has to provide a model that integrates the values of these options into daily practice. The aim of our project was to try out such a model in UK, Belgium, Italy and Spain. In this paper the Belgian experience is reported. Six general practice/family medicine group practices were selected, with at least two GPs and at least one extra discipline attached to the practice. Two facilitators (young GPs) were appointed to three practices each. They facilitated the group in constructing a common learning agenda and made sure the group found the methods to realise it. All processes and outcomes were registered and all participants were interviewed afterwards. Results show a high satisfaction, perceived relevance and enhanced teamspirit. The balance between task-oriented and group-oriented facilitation will be discussed.

**5L3  Interprofessional education in a clinical and non-clinical environment: teachers’ and learners’ perspectives**

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This paper presents the results of the evaluation of an interprofessional education (IPE) pilot programme for undergraduate medical and nursing students. The pilot involved 136 students in the specialist areas of paediatrics and Children’s Nursing. Three groups, with a maximum of 44 students per group undertook the project during 2000-01. Experts from both professions, University and Health Service, delivered the programme and assessed student learning. Qualitative and quantitative evaluation techniques were employed to compare the success of classroom-based (lectures, problem-based learning (PBL), case discussion) and clinical placement (tutorials, ward rounds, teamwork) teaching and learning. The views of both teachers and learners will be presented. Initial results suggest that both students and teachers identify PBL as the most successful classroom-based teaching and learning strategy but that clinical placement learning was preferred overall. That teaching staff demonstrated a positive attitude to IPE was also important.

**5L4  Interprofessional education: experiences of students**

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The courses of the undergraduate dental and dental hygienist training at Groningen University are partially shared. The concept of this educational programme is that dentists and dental hygienists join forces within their workplace. The students therefore should get acquainted with the concept of working together. The research question is: how do students experience this concept? In order to answer this question we used the critical incidents method. We asked the students (n=300) to answer the following question: “During which event in the course did you personally experience the team concept and did it work out well for you, or did it not work out at all?” 85 forms were returned to us. The students’ opinions towards their professional colleagues became increasingly critical. In particular the dental hygienist students did not have the feeling they were taken seriously by the teachers and the dental students.
“Capturing the learning”: the development of interprofessional education in the Faculty of Medicine, Health and Biological Sciences, University of Southampton

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The Faculty of Medicine, Health & Biological Sciences, University of Southampton have a track record of developing a number of successful small interprofessional teaching and learning projects. This paper reports the findings of a study designed to 'Capture the Learning' emerging from the experience of the last decade of inter-professional education activity in the Faculty. This small-scale qualitative study involved interviews with 16 key informants from a range of professional backgrounds, from across the Faculty and service. This paper reports the key emergent themes from the analysis of data. This includes a reflection on the conditions necessary for the development of interprofessional education and learning in the Faculty. The outcomes of this study will be related to the development of the Faculty’s commitment to the establishment of the New Generation Project.

Session 5M  Teaching about EBM, critical thinking and research

Questions as the key to knowledge: teaching medical students in Evidence-Based Medicine

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There is a focus on teaching Evidence-Based Medicine (EBM) but until recently EBM training was not incorporated in our undergraduate curriculum. We introduced an EBM course in the 9th semester (out of 13) in the subject matter ‘clinical biochemistry’. The course consisted of seven (1-hour) lectures during three weeks. First an introduction to the EBM method was given after which students in small groups chose and focused their own question, undertook a structured search and selected one article. The process and results were subsequently presented to and discussed within the entire group of students. The course was evaluated using a questionnaire. Students improved in the evaluation of scientific articles and in seeking information and reported that they had been stimulated to understand concepts instead of memorising details. In our opinion medical students should be introduced to EBM at an early stage to be able to practice EBM throughout their education.

Teaching Evidence-Based Medicine to healthcare professionals: implementing and evaluating the programme

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Many papers have described the importance of exposing healthcare professionals to the ‘new paradigm’ of evidence-based medicine (EBM) as one of the best ways to improve patient care. To this end, we developed and evaluated short courses in EBM for health professionals from 1998 to 2000 at the United Medical Education Consortium, London. Each of the courses lasts for four weeks. The aims of the course are to enable participants to learn how to go through logical laid questions, search on-line databases, review articles critically and apply information from the literature to specific clinical questions. All the participants were surveyed immediately before and after the short course to assess changes in reading, critical evaluation and literature search in medical decision making. The results showed that on-line database search and critical appraisal skills increased significantly in the participants, as did their tendency to use MEDLINE, BIDS and original research articles to solve clinical problems.
Impact of a short interactive curriculum on medical students’ appreciation of EBM and CAM

Samuel N Forjuoh*, Robert A Henry, Terry G Rascoe, Barb Symm and Janine C Edwards
Department of Family & Community Medicine, Scott & White Memorial Hospital, Texas A & M University, System Health Science Center, College of Medicine, Scott & White Santa Fe Center, Temple, TX 76504, USA

To evaluate the impact of a short, interactive curriculum on students’ appreciation of evidence-based medicine (EBM) and complementary/alternative medicine (CAM), a one-page anonymous questionnaire was distributed to all third-year students during their six-week family medicine clerkship before/after a new curriculum, comprising interactive sessions on principles of epidemiology, biostatistics, EBM/CAM. The majority reported that the new instruction in epidemiology (83%), biostatistics (88%), EBM (95%), and CAM (100%) would help their future work. Even though the increase in their mean response on appropriateness of integrating EBM/CAM from 3.79 to 4.05 on a 5-point Likert scale was not statistically significant (p=.095), significant changes were reported in the areas of “critiquing the medical literature” (p=.030) and “appraising a clinical trial” (p<.0001). A short, interactive curriculum on an important topic has a positive impact on medical students’ desire to acquire new knowledge.

Annual Students-Congress of Medicine (SCM): a tool for scientific education in the medical curriculum

E J M van Gils*, M H J Maathuis, G J Navis and R H Henning
University of Groningen, Studenten Congres Geneeskunde, Bloemsingel 1, 9713 EZ Groningen, NETHERLANDS

Since 1993, medical students have been organising the Students-Congress of Medicine annually. Students took this initiative because they felt the need to become more familiar with medical research. The aim of the congress is to get medical students acquainted with research. Student-research is supported in two ways: by offering students the opportunity to present their research through oral/poster-presentation and by providing a meeting-platform for students and researchers. Two-thirds of all undergraduate students (approximately 400) attend the congress. The annual evaluations shows that most participants (80-85%) consider the congress a valuable adjunct to the curriculum. These figures and the fact that other universities started similar congresses mark the success of this approach. We believe that the major role of students in the organisation is a major reason for its success. It is concluded that a students-congress can be an effective tool for scientific education in any medical curriculum.

What do medical graduates think about their earlier research projects now?

Saeed Asefzadeh
Qazvin University of Medical Science & Health Services, Qazvin, IRAN

In Iran, medical students must conduct a research project in order to graduate. The question has arisen whether this project is useful for their future career. To identify the medical graduates’ attitudes to research projects, all of the target population, 383 physicians, both general and specialists practising in Qazvin province, who had graduated between 1996-2000, were provided with a structured self-administered questionnaire containing 35 entries; 202 doctors responded. The mean age of respondents was 34+3.5 years. 67% respondents had gained an excellent score for their research project, while about 72% of them claimed that they had poor knowledge of research methodology whilst conducting the research project. 64% of respondents believed their research work had little effect on their scientific knowledge and skills, and 86% claimed that research results had little impact on their future careers. However 60% of them insisted on the usefulness of doing such projects and suggested that all students should contribute to these activities. It is proposed that research work should be taken more seriously at medical colleges and reoriented to the doctors’ future scientific and professional life. Also it is preferable to engage medical students in research projects from the first year of their internship at the latest.

Research and the use of computers in the new curriculum of the University of Vienna Medical School

Richard Marz* and Robert Trappl
University of Vienna Medical School, Institute of Medical Chemistry, Währinger str 10, A-1090 Vienna, AUSTRIA

One of the innovations of the new curriculum requires every graduate to write a masters thesis. Students use electives (32 of 180 curricular weeks) to first learn the generic skills of doing science followed by work on their own projects chosen from a wide variety of subjects. Special study modules, placed in the 2nd (3 weeks), 5th (3 weeks) and 7th semester (6 weeks) give hands-on experience, culminating in a thesis, for which the 12th semester is reserved. While employing the scientific process students also learn to use computers routinely and efficiently. They will search for medical information and apply this skill to EBM, cooperate with students over the Internet, use statistical programs, write abstracts, and present data. They will use computer-based medical records and consider protection of personal data, etc. Contents and methods of the modules, problems encountered and strategies to overcome them will be discussed.
Experimental courses in biochemistry have been carried out in order to develop critical thinking, autonomy and decision-making capacity in first year students. To determine the students’ outcomes in terms of learning success and satisfaction, an anonymous questionnaire with 15 questions based on a Likert scale (bad, insufficient, sufficient, good, very good) was applied to the 14 students that attended the course in 1998/1999, at the beginning and the end of the course. At the end of the course there was an increase in the number of students who responded ‘very good’ to: the stay in the lab, to using bibliographic search, to what is the quality control, to doing statistical analysis and to making oral results presentations. There was an increase in the students’ interest in research, practical skills in the lab and their knowledge in different areas of biomedical research.
Session 6 Workshops 2

6/1 Basic Skills Faculty Development Workshop

Dr Anita Duhl Glicken
University of Colorado School of Medicine, Box C219, 4200 E 9th Avenue Denver, Colorado 60262, USA

Background
Medical faculty are often recruited directly from clinical practice and while clinical expertise is invaluable to an applied educational process, these individuals may feel unprepared for the expectations and demands of academic teaching.

Aims
The purpose of this workshop is to provide new faculty with participatory learning experiences designed to enhance basic skills that contribute to success in the academic environment. The workshop will also benefit senior faculty who wish to improve their skills or mentor new faculty in their program. Materials will be provided to enable participants to replicate this workshop at their own institution.

Who should attend
Faculty interested in improving their own teaching skills or mentoring new faculty

Content and structure
Two faculty development modules, designed to increase awareness of active teaching strategies, will engage participants in an interactive exploration of ways to enhance didactic teaching through the creation of a complete course syllabus that serves as a contract for partnership in learning. In addition, participants will explore strategies to improve student-faculty communication and feedback. These model workshops illustrate two components of an existing integrated program for faculty development. As a final exercise, time permitting, participants will review an existing integrated framework for faculty development and generate a strategic plan for developing a framework within their program. This plan will address issues of needs assessment, identification of educational components, models and strategies for course delivery, and assessment.

This workshop will include several interactive exercises. Participants will work together to apply principles presented in class and to generate new information to share with the larger group. Brief computer-generated presentations will be used to share information and guide discussions in the larger group. Handouts will be distributed.

6/2 An Introduction to Clinical Judgment Analysis

Dr Anthony LaDuca
National Board of Medical Examiners, 3750 Market Street, Philadelphia, PA 19104, USA

Background
Medical school faculty and practising physicians place great importance on clinical judgment. Frequently, it is cited as a crucial element of a clinician’s proficiency. For some, judgment encompasses the “art” of medicine and the prospect of teaching it is seen as daunting if not impossible. But expert judgment has been studied for decades and clinical judgment has been the object of many investigations in Europe and North America for more than 30 years. Despite this lengthy history, few clinician educators are familiar with the concepts underlying judgment theory and judgment analysis. This workshop is intended to address that need.

Aims
- To introduce participants to the theory and practice of judgment analysis in clinical applications;
- To engage participants in a systematic judgment analysis exercise;
- To encourage participants to locate places for CJA in their instructional program;
- To familiarize participants with the principal features of judgment theory as formulated by Brunswik and Hammond.

Who should attend
Post-graduate clinical education teaching faculty and administrators; clerkship directors; members of student progress committees; medical education support professionals; other medical school faculty and administrators.

Content and structure
The presenter will lead participants in a CJA exercise, such as diagnosing pneumonia. This exercise will use a Web-based CJA system developed by the NBME. The CJA system produces a graphical representation of the participant’s judgment “policy” and statistical feedback comparing that policy with a criterion policy. The participant is permitted to complete a second block of “cases” after which further feedback is provided. This latter feature illustrates the powerful instructional potential for CJA technology.

1 [20 m] Participants engage a Web-based CJA Tutorial on chest pain. Presenter leads discussion of the meaning of graphical and statistical feedback
2 [20 m] Participants complete exercise on diagnosis of pneumonia in 30 patients presenting in an emergency department. Feedback is discussed.
3 [20 m] Participants complete the second block of 30 pneumonia cases and discuss the feedback.
4 [45 m] Presenter leads discussion of theoretical foundations of judgment analysis.
5 [45 m] Working in small groups, participants begin to construct an original CJA problem as a means of addressing the potential utility of a computer-based CJA system in their instructional programs.
6 [30 m] Small groups report on their products.
The workshop consists of three parts. All participants are welcome to attend parts 1 and 2. Part 3 is an Extraordinary General Assembly of the NFME.

Part 1: 14.00-14.45

Plenary: Reform in a medical school – needed, wanted, possible?

Kirsti Lonka, Ph.D, Director, Development and Research Unit, Faculty of Medicine, University of Helsinki, Finland/Professor in Medical Education, Karolinska Institutet, Sweden

Medical education is in the constant process of change, which makes it a dynamic field of study. Typical proposals for the improvement of undergraduate medical education have involved teaching the practical skills needed in general practice and closer integration of theoretical and clinical studies. Movement towards problem-based curricula is taking place all over the world. Also communication studies and professional growth are emphasized. In Finland, curriculum reforms have been frequent. Probably the most radical one took place in the Faculty of Medicine at the University of Tampere in 1994, when a pure PBL (problem-based learning) curriculum was started. Faculty of Medicine at the University of Helsinki began to evaluate and reform its curriculum of medical studies in 1994. This process resulted in Helsinki 2000, a hybrid-PBL curriculum, which was introduced in 1998. In this program, a systematic programme was also integrated to support students’ personal growth and to advance their communication and thinking skills. The main challenges for such a change process are not economic or technical, but rather, social and psychological. Most teachers lack educational training, and their understanding of the learning process is rather modest. A new approach to teaching requires medical teachers to view students as active constructors of knowledge. However, even though reforms may look good on paper, their implementation is the main challenge of medical education. Successful reforms are not possible without serious scientific research on medical education.

Part 2: 1500-1545

Workshop: NFME and AMEE – do we need them both?

A discussion on the future role of NFME and possible co-operation with AMEE

The workshop will start with a closed debate among the panel followed by an open discussion.

NFME and AMEE pursue similar objectives, and in many ways they fill them using the same means. Because of this, some Nordic institutions have claimed that there no longer is a need for NFME. At the workshop we want to challenge this claim and discuss if and how the two organisations can work side by side and together.

Part 3: 1545-1600

Extraordinary General Assembly of the NFME.

6/4 Bedside Cardiology Skills Training, featuring “Harvey”, the Cardiology Patient

Simulator and the UMedic Computer System

Dr Michael S. Gordon, University of Miami School of Medicine, USA
Dr Joel M Felner, Emory University School of Medicine, USA
Center for Research in Medical Education, P O Box 01690 (D-41), Miami, FL 33101, USA

Background

As changes in medical care reduce the faculty time and patients available for teaching, simulation and multimedia systems are becoming a required component of medical curricula. The requirement for the faculty is leadership and a willingness to accept and implement change.

Aim

The objective of this workshop is to demonstrate the effective use of simulation to teach and assess bedside cardiology skills.

Content and structure

The presentation will be interactive, with full audience participation in the “patient” evaluation through video projection and audio for impulses, heart sounds and murmurs. Examples will be presented using the UMedic multimedia computer system. UMedic features “Harvey”, a life-sized manikin capable of simulating the bedside findings of 27 cardiac diseases, including blood pressure, venous, arterial and precordial impulses and auscultation. The UMedic system provides a comprehensive standardized multimedia curriculum in cardiology that includes the history, bedside findings, laboratory evaluation and therapy, and measures learner performance.

6/5 Risk Management in Medical Education

Directors of Research in Postgraduate Medical Education Group

Presenters: Dr Kwee Matheson, Dr Alistair Thomson and Dr Andrew Long
West Suffolk Hospital, Bury St Edmunds, Suffolk IP33 2QZ, UK

Background

There is worldwide interest in risk management. Studies in the USA and Australia quote that up to 16% of hospital admissions suffer adverse events. Costs are estimated at £2 billion in the UK alone and are escalating. Postgraduate Medical Education (PGME) may help doctors prepare to manage and minimise risk, but medical education itself may need risk management.

Aims

This workshop aims to identify the issues and to develop a model for good practice to guide Directors of PGME (DPGME).
**Content and structure**

Plenary 30 mins., Group work 1 hour, Report back and discussion 1 hour.

Participants will explore the relevance of risk management to PGME by discussing the following subjects through plenary and small group work, under the guidance of experienced facilitators:

- Why errors occur; How can we learn from mistakes; Risk management and the learning cycle; Clinical/critical incident reporting and links with audit; How can PGME contribute to a safer environment; Trainers and trainees: both angels and devils; Educational governance: Standards, Assessment and Poor Performers; Validity and reliability of current assessment methods; Culture versus curriculum; The risks to DPGME; What can the DPGME do to encourage a pro-active approach to risk management?

Conclusions from this workshop should be a template to help medical educators fulfill their key role in risk management.

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**6/6 The professional and organisational culture of medical education – an exploratory workshop in the context of an interactive exhibition**

Dr Elizabeth Krajic Kachur, Dr Nobaturo Ban and Hannah Kedar
Medical Education Development, 201 East 21st Street, Suite 2E, New York, New York 10010, USA

(There will be an exhibition linked to this workshop in Research Building Seminar Room 1.0020 1st floor throughout the Conference)

**Aims**

This session will provide an opportunity to explore and reflect upon the professional and organizational environment of medical education as it currently exists and as it might develop in the future. This increased awareness should help participants better understand their current study/work situation and empower them to move the field into a direction that will assure progress.

**Who should attend**

Education professionals, teachers, administrators, trainees involved in medical education.

**Content and structure**

- 15min Welcome and introductions
- 15min Exhibition background and orientation
- 30min Individual exploration of exhibition areas with the help of a worksheet that asks for the completion of specific questions (e.g., identify what exhibition area/item makes you feel most “at home,” list what objects/images you would have expected to see)
- 30min Discussion of individual experience (first in pairs and then in a large group format, a list of adjectives that describe the current cultural climate will be generated)
- 30min Presentation and discussion of individual drawings that get posted on the wall and incorporated in future exhibitions (at the end of this discussion a list of adjectives describing the predicted future culture of medical education is generated by the group and the two lists are juxtaposed for an additional debate)
- 15min Strategies for strengthening or changing culture - What can you do to be an active participant in your culture? (a list will be generated and a tips sheet based on the literature will be disseminated)
- 15min Generation of Take-Home-Points from the session.

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**6/7 Students teaching communication skills**

Organisers: Diana Mitter, Heiderose Ortwein, Jan Schildmann & Gunda Siemsen
Students from Charité, Humboldt-University of Berlin, Germany

**Aims**

At German medical schools there is a long tradition of students teaching communication skills in peer groups. We therefore would like to invite you to experience different methods we use at the Charité, Medical Faculty at the Humboldt University Berlin. Two options are available to participants: one session will demonstrate the work of history taking groups (Anamnesegruppe) led by student tutors. In parallel there will be a training for future student tutors of breaking bad news courses.

**Who should attend**

Invited are persons interested in teaching communication skills (professors, students and administration professionals).

**Content and structure**

The workshop will be divided in two sessions - a practical part with experimental methods and a second part including discussion of the following topics: advantages and disadvantages of student tutors (from our experience students can learn a lot as tutors of communication skills courses), quality management (e.g. training and supervision of future tutors), comparison of student recruitment in different countries. A summary of results will be sent to all participants after the conference.

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**6/8 Developing professional attitudes in medical training: theory, practice and evaluation**

Professor Amanda Howe
Dept of Primary Care, University of East Anglia Medical School, Norwich NR4 7TJ, UK
**Aims**
To examine the evidence base for effective learning of professional attitudes in medicine, and to evaluate the methods through which this aspect of learning can best be evaluated.

**Who should attend**
Any educators or researchers interested, particularly those involved in creating or evaluating the ways in which professional attitudes can be influenced through education & training.

**Content and structure**
Each participant should come prepared to join in by providing a single overhead, outlining their contribution to this field (what they do), its evidence base or theoretical framework (why they do it), and how they evaluate the impact on professional attitudes. These will be shared at introduction, and followed by a keynote of about 20 minutes. We will then work in small groups to consider a) the level of consensus b) the strengths of different approaches c) key questions which remain and how these might be addressed. These will be shared in plenary at the end.

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**6/9 AMEE-IberoAmerican Network Workshop**
Organiser: Professor Margarita Barón-Maldonado, AMEE

**Background**
Over the past few years, participation by teachers and students from Latin American countries at AMEE Conferences has been growing steadily. A discussion forum has been set up to allow them to discuss areas of particular relevance and interest to them. Because of the close links that exist between universities in Spain and Latin America, a new group has been set up, facilitated by AMEE, which will be known as the AMEE-IberoAmerican Network for Medical Education, chaired by Professor Margarita Barón-Maldonado, President of AMEE.

**Who should attend**
The workshop is open to anyone who wishes to attend. Comments and suggestions for further topics for discussion can be Emailed to: amee@dundee.ac.uk

**Content and structure**
The following topics have been suggested by participants for initial discussions:

1. What are AMEE expectations from the group function? What are IberoAmerican group expectations from AMEE?
2. Presentations from each country relating to the current state of medical education, new developments and challenges;
3. Accreditation of Medical Schools, particularly in relation to Mercosur;
4. Potential collaboration both within the Network and with other organisations.

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**6/10 Problem-based Learning**
Dr Stewart Mennin, and Dr Scott Obenshain
Department of Cell Biology and Physiology, BMSB, Box 507, School of Medicine, University of New Mexico, Albuquerque, New Mexico 87131-5134, USA

**Aim**
This workshop aims at informing medical educators about portfolios.

**Who should attend**
Medical educators who are interested in innovative methods of assessing professional behaviours will benefit from this workshop.

**Content and structure**
It will contain a review of the use of portfolios, psychometric aspects unique to portfolio assessment, selection of portfolio material and guidelines for implementation. Participants will work in small groups to design, implement and evaluate administration of portfolios. Half of the time will be devoted to plenary presentation and discussions and the other half to small group work.

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**6/11 Portfolios as a method of student assessment**
Dr Miriam Friedman Ben-David
Centre for Medical Education, University of Dundee, Tay Park House, 484 Perth Road, Dundee, DD2 1LR UK

**Aim**
This workshop aims at informing medical educators about portfolios.

**Who should attend**
Medical educators who are interested in innovative methods of assessing professional behaviours will benefit from this workshop.

**Content and structure**
It will contain a review of the use of portfolios, psychometric aspects unique to portfolio assessment, selection of portfolio material and guidelines for implementation. Participants will work in small groups to design, implement and evaluate administration of portfolios. Half of the time will be devoted to plenary presentation and discussions and the other half to small group work.

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**6/12 Learning Needs Assessment in undergraduate and postgraduate medical education**
Professor Janet Grant
Open University Centre for Education in Medicine, Walton Hall, Milton Keynes MK7 6AA, UK

**Aims**
- To consider the role of needs assessment in undergraduate and postgraduate medical education
- To consider and evaluate methods of needs assessment
- To identify how needs assessment is and can be done efficiently and effectively
- To consider and evaluate the consequences of needs assessment for educational planning and review

**Who should attend**
The workshop concerns only undergraduate and postgraduate medical education, but participants from other health care disciplines will be welcome.

**Objectives**
By the end of the meeting, participants should be able to:
- State the roles of needs assessment in undergraduate and postgraduate medical education
Describe and evaluate the available methods of educational needs assessment
Advise about practical needs assessment methods
Plan the stages that follow on from educational needs assessment in undergraduate and postgraduate medical education.
Offer a critical appreciation of needs assessment in education.

Content and structure
The workshop will consist of a series of short presentations, with comprehensive handouts. Integrated with this will be participative group exercises which will enable participants to review each of the objectives stated above and make practical plans for their own situations.

A European core curriculum?
Prof. dr. Lennart N. Bouman
MedEdcual Consultancy, In de Korenmolen 17, 1115 GN Drienvendrecht, The Netherlands

Aim
The aim of the workshop is to produce a set of global aims and objectives that could act as a common framework for the medical schools in the European Community. This framework must fit into the directives of the European Council on the mutual recognition of formal qualifications. Secondly it must be adapted to the profound changes that the professional roles of the doctor will undergo in the near future.

Who should attend
The workshop will help participants to become familiar with European legislation on the requirements for primary medical education and its continuation into residency and continuing education afterwards. This may be beneficially to those who will be involved in future curriculum planning on a local or national scale.

Content and structure
The workshop will be based on two key papers:

1. European Council Directive 93/16/EEC, from Internet available as:

2. Learning Objectives for Medical Student Education from the American Association of Medical Colleges (AAMC), available as:

In the first hour we will discuss content and significance of these two papers (participants are requested to download these papers and read them prior to the workshop). In the second hour elements for a core curriculum will be selected in small group discussions. The outcomes will be discussed in plenary in the last hour.
Session 7A  New learning technologies

7A1  An international web-based Master’s degree in Primary Care
Peter Toon* and Trish Greenhalgh
University College London, 137 Roding Road, London E5 0DR, UK

Worldwide, the academic basis of primary care needs strengthening. In the UK, Masters’ degrees, usually part-time over three years, have become important in this process. Since 1999 University College London (UCL) has offered a multidisciplinary MSc in Primary Care, largely through web-based distance learning. Students, mostly UK based, follow a structured programme of reading, with exercises to help them relate their study to previous learning and their professional life, and work together in virtual group discussions and seminars using computer conferencing. As a pilot for the proposed UK “e-university”, we are now developing a similar course for an international audience. The scope, methods and content of the existing course and our qualitative evaluations will be described, and the issues involved in devising a course for an international audience in a discipline which has strong culturally and organisationally specific elements will be considered.

7A2  Can practical courses on interpreting blood smears be substituted by an interactive, web-based learning programme?
U Woermann*, A Töbler and M Montandon
Division for Instructional Media, Institute of Medical Education, University of Bern, Inselspital 38, CH-3010 Bern, SWITZERLAND

In Bern, medical students learn to interpret blood smears in two practical courses. Because students felt very unsure in this skill, the web-based programme HemoSurf was developed. Some students suggested replacing the course by HemoSurf. How much of their sureness in interpreting blood smears would students attribute to HemoSurf? In a questionnaire students indicated that 61% used HemoSurf, 72% printed materials, and 11% did not prepare. Students using HemoSurf invested on average less than an hour, but attributed 49% of their sureness to HemoSurf and only 30% to the practical courses (six hours). The students using printed materials spent on average more than an hour, but attributed only 19% of their sureness to these materials. We conclude that HemoSurf is an efficient tool to learn interpretation of blood smears. We will replace the practical courses by a small group format discussing the impact of haematological investigations on clinical medicine.

This poster will outline the introduction of web-based student feedback for large group clinical teaching to undergraduate medical students. In a pilot study at the GKT School of Medicine, London, a system for implementing web-based feedback to replace traditional paper-based methods was set-up, and the potential for this method explored. The steps taken in this process will be illustrated and explained. These include:

1. The recruitment of teachers and students to an electronic method of student feedback.
2. The briefing of teachers and students in use of the system.
3. The implementation of the pilot study.
4. The evaluation of the method.

7A4  Web-based student feedback on large group teaching: how does it compare with traditional paper methods?
Helen Graham* and Stephanie Cobb
Department of Medical and Dental Education, Guys, Kings & St Thomas’ School of Medicine, Kings College London, Sherman Education Centre, 4th floor, Thomas Guy House, London SE1 9RT, UK

Quality assurance is integral to good teaching. It requires a commitment from students to provide regular feedback, and from teachers to analyze and act on the information received. The organisation and analysis of student feedback is time-consuming and difficult to co-ordinate for a complex clinical course. Web-based feedback using a dedicated school web-site offers the advantage of ease of collation of student assessment ratings and comments. In Year 4 of the undergraduate course at Guys, Kings and St Thomas’ School of Medicine, Kings College London, web-based student feedback of large group teaching was compared with traditional paper based methods using response rates and quality of assessments. The preference of teachers for both methods was assessed and their comments sought. The advantages and disadvantages of both methods will be presented.

7A5  Reflection on experiences by using trigger movies
Marianne G Nijhuis*, Caro Brumsen, Jan H Bolk and Peter G M de Jong
Leiden University Medical Center, Onderwijscentrum IG, kamer C5-54, PO Box 9600, 2300 RC Leiden, NETHERLANDS

During clerkships, students encounter a lot of new impressive, and sometimes frightening or sad experiences. At the Leiden University Medical Center, an obvious need for reflection on this subject becomes apparent during small group sessions in which case histories are discussed. Unfortunately no structural attention is paid to these experiences during the first few months of clinical education. From the small group
sessions, difficult situations encountered by students during practice were collected. Situations occurring the most frequently were translated into script and recorded on video using actors. Subsequently, these materials are used as a trigger for discussion in small group settings under supervision of an experienced physician. The use of the trigger movies improved the capability of students to cope with emotions and helped them to handle difficult situations better during practical work.

7A6 Provision of IT learning facilities for healthcare education

C Osonnaya*, K Osonnaya and E Burke
Department of General Practice and Primary Care, Queen Mary College, University of London, Mile End Road, London E1 4NS, UK

In recent years there has been an increase in the use of information technology in medical education. This is in response to a growing recognition of the need to promote computer literacy among healthcare professionals. Our main objective was to design and implement Computer Aided Learning (CAL) applications, which can be integrated into the healthcare education curriculum. Hence a logical approach to CAL was developed by building a team of professionals which forms a CAL Unit, using existing expertise and by implementing a process to ensure that the CAL had a maximum impact upon healthcare education. The CAL resources include: multimedia learning facilities, learning guides, computer aided assessment, model patients, anatomical models, statistical models, IT interactive learning facilities, teaching and learning facilities via the Internet, diagnostic and treatment models. We have now implemented over 27 IT based learning resources and course evaluations have showed that these have been well received by users.

7A7 Development and evaluation of an interactive Computer Assisted Learning (CAL) programme on vaginal hysterectomy

Vikram Jha*, Shelley Widdowson, Sean Duffy and Keith Allenby
St James’s University Hospital, Academic Department of Obstetrics & Gynaecology, Level 9, Gledhow Wing. St James’s Hospital, Leeds LS9 7TF, UK

In Gynaecology, understanding of anatomy and surgical principles involved in vaginal surgery such as vaginal hysterectomy is often confusing to students and junior trainees. The aim was to develop a CAL programme in CD-ROM form combining video, illustrations and three-dimensional images for better understanding of vaginal hysterectomy. We used Macromedia’s ‘Director’ to develop the CD-ROM. This allows text, graphics, video and sound to be combined to create interactive material. The video was filmed and edited at the Hospital. The illustrations were resized and exported as quick time. The three-dimensional images were created using anatomical models and True Space programme. The CD-ROM has been piloted amongst fourth year students. It has received a positive response. It is intended to demonstrate the CD-ROM and present the evaluation results at the meeting.

7A8 Links from ultrasound to anatomy - how is a multimedia teacher accepted?

Dietmar Borchert*, Gunnar Schley, Edda Klotz, Peter Rauh, Clemens Reisinger and Thomas Medveczky Humboldt - University of Berlin, Medical Faculty, Department of Study Organisation, Schumanstrasse 20-21, 10117 Berlin, GERMANY

Since Spring 1998 a group of students has tried to establish a multimedia teacher existing of ultrasound machines, computer, specialized monitors and additional multimedia tools. Students from the first course were educated in ultrasound in parallel with the normal anatomy curriculum. In small groups of 4 students they learned to handle ultrasound machines and to integrate their knowledge of anatomy with practical experience. The multimedia teacher was equipped with ultrasound software, videos and web-links. The computer can be driven via wireless, hand-held mouse menus. Pictures of special interest with hyperlink-explanation can be loaded and structures on the ultrasound images can be compared and identified. Students are able to save and edit their own images. We tried to estimate how web-based and multimedia learning is accepted by students and if early handling of ultrasound machines improves knowledge in anatomy.

7A9 Development of a computer-based simulation: the Dynamic Patient Simulator

S Eggermont*, P M Bloemendaal, J M van Baalen, E M Schoonderwaldt
Leiden University Medical Center, Heelkunde Onderwijs K6-R, Postbus 9600, 2300 RC Leiden, NETHERLANDS

For obvious ethical and legal reasons it is not allowed for students to practise medicine on patients without supervision. At Leiden University Medical Center a computer-based simulation program, the Dynamic Patient Simulator (DPS), was developed to overcome this restriction. DPS provides medical students with the opportunity to practise medicine on a virtual patient, offering all the possible diagnostic and therapeutic actions as in real life. Students can practise making decisions autonomously, considering the state of the patient and accepting responsibility for the consequences. Students therefore acquire clinical experience in an early stage of their studies and are encouraged to fill gaps in their knowledge. DPS can be used in the absence of a teacher because a built-in assistance system attempts to help students on request, depending on the student’s preceding actions. The system provides feedback, gives a final score and can therefore be used as a self-test.

7A10 Introduction of laptop computers in Leiden Medical School

Peter G M de Jong*, Hermiette E Edenburg and Henk L Hendrix
Leiden University Medical Center LUMC, Onderwijscentrum IG, Kamer C5-54, P O Box 9600, 2300 RC Leiden, NETHERLANDS

- 4.57 -
In 1998, the board of the Leiden University Medical Center decided to introduce information and communication technology (ICT) in the medical curriculum to prepare students for their professional life as a medical doctor. To attain this goal, special facilities for students have been created in 2000 to buy a laptop computer. For students, participation in the laptop-project is voluntary and only first-year students are allowed to join. Participants pay only one-third of the total costs, the Medical Center pays for all other costs. Insurance of the laptop is included, as well as access to a specially designed wireless network. Effects of introducing laptops have been evaluated by a questionnaire performed in January 2001 among all first-year students. This questionnaire shows that the use of Internet and Microsoft Office has increased enormously, but teachers do not take advantage of the possibilities presented.

Session 7B  Problem-based learning

7B1  Measuring success: partnership in evaluation (work in progress report)

P O'Neill, D Graham, A Garden, S. Wattmough*, J Brown University of Liverpool, Curricular Development Unit, Department of Primary Care, 2nd Floor Thornley Building, Brownlow Street, Liverpool L69 3GP, UK

An innovative collaborative evaluation project is taking place between the Universities of Liverpool and Manchester and the Mersey Deanery. The goal is to assess whether the new problem-based learning curricula at Liverpool and Manchester are producing Pre-registration House Officers who are capable of meeting the competencies expected by the General Medical Council and the National Health Service. Preliminary work at Liverpool has involved questionnaire surveys of Educational Supervisors and Pre-registration House Officers. Mersey Deanery has delivered questionnaires to Pre-registration House Officers who have graduated from the new curriculum. Further questionnaires, focus groups and interviews will be held to gauge differences between old and new curricula cohorts and assess the educational aspects of the PRHO year.

7B2  A new PBL course with an examination with standardised patients at the end

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A new problem-based learning (PBL) course dealing with disorders of the musculoskeletal system (MuSkel) was introduced at Ludwig-Maximilians University (LMU) Medical School lasting 4 weeks. All 234 4th year students were enrolled in the summer term 2000. For the first time at the LMU an examination with standardised patients has been carried out at the end of this course. MuSkel followed 3 other PBL-courses successively implemented at the LMU. With the new form of this examination other insights into correctable deficits of medical education could be found, e.g. the demand of teaching a more structured clinical examination, of teaching problem-solving strategies, considering cost-effectiveness and time constraints of ambulatory medicine. The opinion of the students about this type of examination was very positive. Focussing on practical skills assessment gave further insights in deficits which could be partially corrected in the second MuSkel course in the winter term 2000/2001.

7B3  Training the problem-based learning tutor: implementation issues

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Problem-based learning (PBL) is widely regarded as a useful strategy to improve students’ learning in Medical School and to prepare graduates for the informational challenges of the years to come. This has led to many medical schools adopting this educational approach, which increases the need to train tutors to facilitate PBL groups. Therefore, we developed a PBL training programme for medical teachers. The training programme, which lasts for four weeks, is devoted to acquainting teachers with the key elements of PBL. The principles, the seven steps, the tutorial sessions, group interaction, information management, critical analysis skills, assessment and evaluation of PBL group sessions were also dealt with during this period. The role of the group tutor to facilitate and not to lecture was emphasised, as well as the goals of PBL. The tutors practised acting as PBL tutor, scribe and group member. Evaluation of the course showed that it has wide appeal and has been well received by the teachers. The strongest influence for any modifications made have come from the teachers who have participated in the course and they had recommended for the programme to continue. We therefore recommend it as a realistic way of training teachers as PBL facilitators.

7B4  PBL in Psychiatry - the Holocaust: a unique experience

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Planning a rotation in psychiatry meets a major problem: whether and how to incorporate an inner touch
in the student’s soul. Group dynamic and projective “games” are some of the possible methods. Teaching and learning about the holocaust and its emotional implications, is another challenging problem. We aim not to be reductive by teaching psychiatric diagnoses. In order to meet those two difficulties we constructed a PBL session. The goal was to produce a learning experience, which involved a controlled emotional touch. The case was about a “child survivor”, who organized his life and personality as a stiff and demanding character, and appeared in the emergency room with somatic complains. Besides theoretical subjects such as PTSD, somatization disorders and obsessive-compulsive personality, the students learned about “child survivor” “survivors’ guilt” “second generation”. The presentation includes the case, the emotional response and the students’ feedback to this unique experience.

**7B5**

**Clinical skills of medical students participating in lecture-based versus problem-oriented training**

W Rimpa
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Medical education in Germany is theory-oriented. New methods to improve and evaluate skills are needed. The study was designed to determine whether students with lecture-based versus problem oriented training in neurology have different clinical skills. A prospective cohort study was carried out. The outcomes of a modified version of the objective structured long examination record (OSLER) were compared between two groups of students. Group I (n=20): Students of the Humboldt University Berlin, with a 4-month reform-elective in their final (sixth) year of medical training. Their previous training has been lecture-based. Group II (n=25): Students with a 6 week neurology training in their fourth year at the University Witten-Herdecke, who have a problem oriented curriculum throughout their entire training. Students of the lecture-based group showed satisfying but significantly worse outcomes.

**7B6**

**Systematic observations of problem-based study groups - what do they reveal?**

K Lonka*, P Sauri and N Pagunus
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The curriculum of the Faculty of Medicine at the University of Helsinki was changed towards PBL in 1998. The aims of the present study are: 1) To see how the new approach to teaching and learning works, and whether something should be done to improve it, and 2) to see whether group functioning is related to students’ study success. A systematic observation of tutorial groups was carried out during Spring term 2001. A closing session of all 14 first-year tutorial groups (10-12 students in each) was observed once. All students and their tutors were given questionnaires which were filled in after a tutorial session. A specific observation sheet was also developed and an external observer was hired. The observer also gave feedback to the group. Data are presented that consist of the questionnaire data, a summary of observation forms, and study success of each group.

**7B7**

*“Pathomechanisms* - a 9-week integrative and problem-based learning oriented course within the 3rd year of the curriculum at the Medical Faculty Carl Gustav Carus, Technical University Dresden*

Oliver Tiebel*, Ines Nitsche and Andreas Deussen for the Core Planning Group
Institute of Clinical Chemistry & Laboratory Medicine, Medical Faculty Carl Gustav Carus, TU Dresden, Fetscherstr 74, 01307 Dresden, GERMANY

To prepare physicians for the changing demands of future developments in medicine the Dresden Medical Faculty is restructuring its curriculum implementing problem-based learning elements. The changes start from the 3rd year of the curriculum. This year equivalent to the first clinical year consists of 4 PBL-courses: “Pathomechanisms” (9 weeks), “Basics of Pharmacotherapy” (6 weeks), “Infectiology” (11 weeks) and “Emergency Medicine” (3 weeks). In this presentation we will focus on the structure and organization of the “Pathomechanisms” course which has been organized as an interdisciplinary enterprise including pathology, laboratory medicine, pathophysiology and pathobiology. Cases discussed in small groups of students and tutored by experienced mentors are supplemented by lectures specifically related to the case topic and course objectives. Additionally students have two practical classes each week focussing on pathology and clinical pathology. A clinical examination class which extends over the entire study year supplements the course.

**7B8**

*Characteristics of tutors’ assessment by students when PBL is being implemented*

Yolanda Marin-Campos* and Marcela Lopez-Cabrera
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The students’ perception regarding the performance of the tutor has particular characteristics when PBL is being implemented, since they are going through a transitional process from a traditional to a student-centered approach. Thus, the tutor’s performance must be adequately monitored, given that the students are adapting to the teacher’s new role. In order to assess the tutor’s performance, we selected the functions that are most significant of the change in their new role, and that are directly related to the tasks of the students, that is, those functions the students might have an opinion about whether they are being adequately accomplished, and if the tutor’s performance is facilitating their learning. The elements of the tutor’s performance that were selected to be evaluated are: support in knowledge elaboration; directing the
learning process; promoting knowledge integration; stimulating group member interaction; respect for the students; warmth and accountability.

7B9 From traditional teachers to PBL tutors: how to start the change?
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One of the most difficult elements to change for achieving successful implementation of PBL, in traditional curriculum schools, is the acceptance of the teachers’ new role as tutors. In this project a program is presented, whose main challenge has been to demonstrate the advantages of PBL over the traditional teaching system. To do so, a 60-hour workshop was designed in which skeptical teachers are presented with the theoretical and methodological basis of PBL, so that they themselves can find the answers to their many questions. This workshop has been developed throughout 6 years, working with teachers from the basic and clinical sciences. Included are the educational approaches important for educational research development.

7B10 Development of a problem-based curriculum leads to enhancement in faculty development - the Dresden experience
N Lorenz, T Arez, E Armstrong and the Harvard-Dresden Medical Education Alliance
Technical University, Dresden Carl Gustav Carus, Children’s Hospital, TU Dresden, Fetscher Str. 74, 01307 Dresden, GERMANY

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7B11 An orientation programme for 1st year students in a problem-orientated MBChB curriculum - the Pretoria experience
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Because the Pretoria medical school changed its model of teaching and training from a traditional to a problem-orientated integrated one, an orientation programme (which lasts two weeks) was introduced before the first block. Five aims were set for the programme, focusing on information, support, motivation, opportunity and exposure. Detail regarding these objectives, as well as the outline of the programme as a whole, will be given. Every student received a block book, and the 35 learning sessions, as well as the 10 visits, were evaluated. The method of this evaluation and the results will be made available. The recommendations which had been made, will also be shown.

Session 7C Curriculum planning and change

7C1 A model of curriculum management in an integrated medical curriculum
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Curriculum management is an integral component of any curriculum. The success of curriculum development and implementation to a certain extent depends on how well the curriculum is being managed. Creation of tiers of responsibilities to provide the management structure and a well-defined line of communication and standing operating procedures allow “checks and balances” to be instituted to the management of the curriculum. This paper describes how the International Medical University (IMU) utilises the above principles to manage its medical curriculum in a 3-tier management structure. The structure is dynamic and it allows an exposition of the curriculum philosophy and monitoring of the curriculum (an internal audit) through its structural linkage. Its dynamism is further reflected in the coherent participation and ownership of the curriculum by all Faculty members as one would expect in the management of a modern medical curriculum.
7C2 The University of Rochester's Double Helix Curriculum

Elaine F Dannefer
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Beginning in 1999, a fourth-year, interdisciplinary curriculum has been phased in at the University of Rochester. Called the Double Helix Curriculum, this curriculum integrates basic science and clinical medicine throughout the four years of undergraduate education with the clinical strand comprising approximately 30 of curricular time in years one and two and 70% in years three and four, with the basic science strand representing the converse. An 18-month ambulatory clerkship in years 1 and 2 is followed by inpatient clerkships and electives. Students begin their education with a course that provides the foundation for the practice of evidence based medicine and includes biostatistics, epidemiology and skills related to searching and evaluating the scientific literature. Two-week long comprehensive assessments at the end of years 2 and 3 provide feedback for students as well as a means of assessing the curriculum.

7C3 Academic administration and mixed programmes

S Sharma Khanal* and S Koirala
B P Koirala Institute, Dharam, NEPAL

The B.P. Koirala Institute is a Health Sciences University in Nepal with undergraduate courses in medicine, nursing, dentistry and allied health sciences plus postgraduate courses to PhD level. This poses an overwhelming challenge for maintaining harmonious and positive administrative approaches. It becomes further intensified as trained manpower is scarce in Nepal and the potential danger of manpower leaving the Institute has led to new approaches to retain teachers. These will be presented in the poster.

7C4 Learning responsibly - implementing written guidelines for medical students

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Contemporary medical undergraduate curricula include early patient contact in community settings. Whilst there may be concurrent teaching in ethics, the focus of this may be on the behaviour of a qualified doctor; what of the students’ responsibilities to patients and each other? As a department, we have 1,800 students placed in hundreds of community settings during the year, and we are concerned about student awareness of their current ethical responsibilities. We prepared written guidelines for students about responsible learning. Questionnaire follow-up in 1999-2000 showed only 121 of 263 students definitely had read the booklet (of these 121, the majority found it helpful), and 20% said they had lost it altogether. For 2000-2001 modifications were made in delivery and highlighting the material, and the questionnaire repeated. This presentation reports on more detailed results of both questionnaires and will discuss the modifications and the implications.

7C5 HEICUMED - a novel approach to student medical education at the Medical Faculty of the University of Heidelberg, Germany

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Heidelberg Medical Faculty developed “HEICUMED”, in which the clinical years are completely reorganized into organ-related block courses (“modules”). Modules are taught multiple times during the year in small student groups. A multidisciplinary planning group redesigned the original plan and combined the modules into interdisciplinary “clusters”, such as surgery and medicine. Strong connections between the various disciplines are guaranteed by lectures and cases related to leading symptoms. Subjects like pathology, radiology, clinical laboratory, etc are all integrated into the topics of the week and taught alongside. This novel approach of student education is directed to significantly improve:

- students’ clinical and practical instructions and keeping training of medical facts at a high level;
- the personal interactions with faculty members;
- case-related problems in which all pieces of knowledge in clinical medicine have to be connected; and
- teamwork by encouraging studying in groups and establishing PBL group learning.

7C6 Enhancing curriculum renewal through a “clinical presentation” approach to undergraduate medical education

Nehad El-Sawi
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UHSCOM has revised its ‘discipline based’ curriculum and adopted the ‘integrative clinical presentation curriculum’ modelled, in part, after the Calgary curriculum. The discipline-based curriculum emphasized traditional basic sciences but lacked integration throughout disciplines, and across the four years. The integrative Clinical Presentation curriculum combined a strong knowledge base of basic and clinical sciences where clinical instruction guides basic science learning. Each clinical presentation began with a decision tree review, demonstration of its use, and a series of lectures covering the related basic and clinical sciences, ending with opportunities to practice diagnostic reasoning. The integration of subject matter created a coherent foundation for students’ subsequent efforts at organizing the relationships between various basic and clinical science concepts.
Changes in the demographic composition of our population as well as changes in health care delivery will strengthen the role of general practitioners in the future. However, undergraduate medical education has not yet appropriately responded to the outlined secular trends, and training for students in respective settings is broadly missing. At the University of Witten/Herdecke (Germany) a course for continuous training in general practice has been established as a mandatory part of its undergraduate medical curriculum. Beginning in year 1 and ending in year 5, students will perform 6 training units in general practice, each of 14 days’ length. Each unit is structured by a training manual, containing specific tasks to be performed by students under supervision of their doctors. Tasks cover areas such as communication, history taking, physical examination, long-term patient care, prevention as well as economic and management aspects of health care delivery. The course design and its learning objectives will be presented.

Major curriculum changes are difficult, and prove to be eventually ineffective if there is no wide endorsement among the teaching staff. At the Chinese University of Hong Kong a curriculum change designed to enhanced skills (clinical, communication, and life long learning), as well as for enhancing integration of basic, social and clinical skills throughout the entire five years of its medical undergraduate programme were proposed by the Faculty’s leaders. Initially, many teaching staff regarded such a change to be of dubious need and of low priority, particularly in comparison to other work obligations in clinical service and/or in their basic or clinical research. The steps taken and methods used to effect changes in attitude towards, to build support for and to develop a sense of ownership of the changes within the entire teaching staff are given in this presentation. The process of introducing the curriculum change is still ongoing, but the approaches used to date have successfully co-opted a reasonably high level of willingness and cooperation in at least designing and beginning the implementation of change. Mechanisms for securing this cooperation within an Asian medical school context are compared and contrasted with methods frequently proposed and used in medical schools operating in Western societies.

The rigorous psychometric development of the Specialty Choice Inventory [Sci45] was reported at the 1999 AMEE meeting. This 130-item instrument matches respondents to 45 specialties. The successful implementation of Sci45 depends on its flexibility to respond to many different needs. To date, six potential uses for Sci45 are being developed:

- Availability on CD-ROM for individual use;
- Use for final year medical students to assist them in their career choice: about 20% of career choices are made at this stage;
- For hospital clinical tutors to offer to all doctors in training;
- Development of Sci45 to include subspecialty profiles so that selection panels can ensure a wide range of trainees for a range of subspecialty posts;
- For research into variables that might impinge on successful progress through the training grades;
- To provide independent feedback to selection panels to help them reflect on their decisions.

The Nelson R. Mandela School of Medicine’s student-centred, 5-year, problem-based curriculum greatly emphasizes the role of students as self-directed learners. Large group resource sessions are scheduled with the objective of introducing students to concepts and principles. Students are expected to use a variety of resources to solve their cases/problems, hopefully engendering deep learning strategies. Groups of students from diverse cultural and social backgrounds meet twice weekly (2 x 2h sessions) for small group sessions. Problem identification and resolution are two phases monitored by facilitators in order to guide and check whether learning outcomes (as identified by module designers) are achieved by students. This report describes various aspects of facilitation within the Faculty, including selection of facilitators, training, their role, perceptions of facilitators prior to and after a module and their experiences during the module. Student perceptions of the role of facilitators are also discussed.
Session 7D  Curriculum evaluation/staff development

7D1  Students' feedback: a public health course in medical education

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Since 1999 Austrian universities have been required by law to evaluate the teaching competence of their faculty. The Institute of Social Medicine and Epidemiology, Karl-Franzens-University Graz, started evaluating its courses in 1998. Public health is a required one-week course within the medical school curriculum. We used a standardized questionnaire developed by an expert committee of this university including five sections with ratings on 5-point scales. The students answered the questionnaire at the end of the module; therefore the response rate was nearly 100%. The performance of three teachers in the time period from 1998 to 2000 was analysed by descriptive analysis of 240 questionnaires. Around 60% of the students were female and 40% were male. The results and the relevance of evaluating public health courses will be discussed.

7D2  Action Research Methodology: a possible framework for course evaluations

Alison Rushton* and Gill James
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The process of curriculum design incorporates evaluation of existing courses. This paper describes a possible methodology for such evaluations. A conceptual framework, based upon action research methodology, was developed; combining diagnosis with reflection. This framework was used in the evaluation of a physiotherapy undergraduate course in the UK. The course was structured around a thematic approach, whereby the core areas of physiotherapy practice informed the course design. The diagnostic phase identified all aspects impinging upon the success of the programme. All stakeholders (including students, tutors and funding bodies) were targeted for the data collection phase. Reflection is seen as an important component of the action research cycle, facilitating prescription of data collection methods (which included focus groups, questionnaires, module evaluations and analysis of existing documentation). These data were analysed and triangulated and the results provided a reasoned justification for maintaining and strengthening the thematic approach of this course.

7D3  The opinion of graduates of the Faculty of Medicine of the University of Barcelona on the new medical curriculum

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Our Faculty introduced in 1994 a new curriculum that has represented a significant change from the old one. To evaluate the results of this curriculum in order to facilitate appropriate future development, a questionnaire was administered to the graduates, asking about their opinion on the following aspects: accomplishment of the curriculum objectives, the quality of medical education offered by the Faculty, the influence of the national board examination on the development of the curriculum, the effort that the new curriculum requires of the students and the strong and weak points of the program. 120 students (80% of total students) answered the questionnaire. In general, the acceptance of the new curriculum by the students was high although some deficiencies have been detected. The information furnished by the graduates will be useful in introducing the necessary modifications to improve our educational program in the coming years.

7D4  Comenius University Quality Assurance System (CUQAS) and students' participation in graduate medical education evaluation

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We believe that students should take an active part in the process of education evaluation applied at the Jessenius Medical Faculty. Students in the 11th and 12th semester were asked to answer an anonymous questionnaire on education quality in four basic clinical subjects (four-grade-quality-system). Questions related to the structure and content of lectures, teachers' approach towards students, contacts with patients and others. In contrast to prevailing positive evaluations within the scale of “fully”, “partially satisfied” and “more satisfied than unsatisfied”, less than 1/5 of students were “not satisfied” with at least one of the evaluated education components. The education quality evaluation system helps the faculty management to improve educational standards and to identify its weak and strong components. In the future, this is planned to be applied annually for the whole graduate education within the uniform CUQAS system and database.
**7D5** Research in medical education: constructing an ethical framework

E B Reile* and A Slowther
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Proposals for research in medical education are frequently submitted to UK medical research ethics committees, which are more accustomed to considering the implications of research on patients than research on learners. After reviewing relevant codes for educational research, we propose an adaptation to a framework of medical research ethics for use in medical education research. Key issues in our suggested framework include:

- Scientific validity of the research on medical education
- Safety aspects, including
  - risk to the students’ psychological well-being
  - risk to patients from exposure to learners
- Consent procedure:
  - are students fully informed about the study and the implications for their education?
  - is consent voluntary and without coercion?
- Confidentiality issues, including whether examiners or assessors will have access to research information.

We discuss some ethics considerations, which may help to inform the critical appraisal of research projects in medical education and thereby encourage good practice.

**7D6** Students’ perceptions of the Physiology course in a traditional medical school

F Riggione*, J Perez-Ojeda and J F Perez-Gonzalez
Centro de Investigacion y Desarrollo de la Educacion Medica, Escuela de Medicina “Luis Razetti”, Facultad de Medicina, Universidad Central de Venezuela, Caracas, Apartado de Correos No 90.350, El Hatillo 1083A, VENEZUELA

Students’ perceptions of learning experiences contribute to a better understanding of the need for curricular reform. We explored the opinion of 2nd year medical students after their 36 week Physiology course of lectures and laboratory sessions. 166 students received a 25 item survey and 146 responses (88%) were evaluated. 76% of the respondents attended 50% or less of the lectures. 64% considered the course to be detailed and 57% to be complex. 34% considered it relevant and 34% difficult. Teachers were considered competent by 56%, accessible by 51% and rigid by 48%. On a 5 point Likert scale (0 = not at all, 5 = very much) their experience of the course was defined as significant (mean score = 3.65), pleasurable (2.51) and much) their experience of the course was defined as significant (mean score = 3.65), pleasurable (2.51) and much)

**7D7** Students’ perceptions of a traditional undergraduate course in Microbiology

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Microbiology can be an abstruse subject for medical students. We explored the opinion of our students after their 36 week traditional Microbiology course of lectures and laboratory sessions in the 2nd year. 187 students completed a 25 item survey of their experiences in the course. 71% of respondents attended 50% or less of the lectures and 100% attended >85% of the compulsory laboratory sessions. 68% thought the course was relevant, 41% found it detailed and 24% excessive. Teachers were considered competent (79%), accessible (69%), interested (66%) and stimulating (41%). The students defined their learning experience by grading items on a 5 point Likert scale (0 = not at all, 5 = very much), as significant (mean score = 4.15), creating a “feeling of discovery” (4.08), leading to new questions (3.88), pleasurable (3.7) and stimulating (3.63). 88% of respondents indicated to have learnt >50% of the course's contents.

**7D8** Faculty development in General Practice - the German experience

M Ehrhardt, P Engeser, M Herrmann, T Lichtle, N Donner-Banzhoff and S Wilm*, on behalf of the participants
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Since 1978 General Practice has been a required subject of the undergraduate curriculum in Germany. However, only about one third of all 33 medical schools have established academic departments. At the remaining schools, GP teachers are often working in isolation and without adequate support. In 1999 the National Society of General Practice started a programme to help GP teachers develop their academic skills. Six weekends spanning 1 1/2 years are being offered covering teaching, clinical work, quality issues, research and academic survival skills. Participants are expected to work together in small groups on projects during intervals and to complete an international practicum of at least one week duration. There is also an intranet platform to facilitate the exchange of ideas and materials.

While in the beginning the learner-centered philosophy created tension and uncertainty, the group has now found a working identity that participants find enjoyable and productive.

**7D9** Medicine and ethnic issues; do our tutors reflect their community?

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We conducted an audit of primary care teaching practices in order to determine the characteristics of
doctors providing different elements of the extensive Birmingham community based curriculum. 185 questionnaires (concerning gender, ethnicity, languages spoken) were distributed. 540 doctors from 163 practices responded (practice response rate 88%). Ethnic and gender differences were clear across different practice types. The 2001 Amendment to the 1976 UK Race Relations Act will mean for the first time that providers of services to the public will have
to demonstrate they are working for equality rather than merely avoiding discrimination. This audit, experience with attempts to collaborate with secondary care teachers plus our larger curriculum development project stimulate a wider debate about whether, when commissioning teaching practices, we should assess other aspects of quality of service provision; and whether, in the absence of an appropriate environment, learning outcomes are achievable.

Session 7E  
Postgraduate education

7E1 Exploring the views of Basic Surgical Trainees on their training programme and their future in Surgery
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The aim of the study was to explore views of Basic Surgical Trainees (Senior House Officers) on a training scheme for Basic Surgical Training that complies with college requirements. A quantitative study postal questionnaire devised in liaison with UK Medical Careers Research Group was distributed to 115 Mersey Basic Surgical Trainees. Qualitative data were collected from free-text responses. Questions focused on career choices, views on the scheme, and assessment. 93 (81%) questionnaires were returned. 51 (54%) were graduates from local university, 49 (52.7%) came directly onto the Mersey BST scheme from PRHO posts, 4 (4.3%) had more than 1 year’s UK SHO experience. 26 (27.9%) changed their surgical speciality intention since medical school; factors influencing change were: - PRHO/SHO experience; teachers; departments. A young, parochial and inexperienced cohort of trainees who have strong convictions were identified. Many issues raised have one common denominator: the strong influence of teachers on trainees.

7E2 An assessment of the skills base and attainments of Senior House Officers on a regional Basic Surgical Training Programme
Linda de Cossart, Charmian Wiltshire and Jeremy Brown*
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The aim of the study was to assess the skills base and achievements of trainees on a Basic Surgical Training Programme. All trainees on the 3-year Basic Surgical Training Programme instituted in 1996/7 were given a questionnaire designed to find out their aspirations and opinions about the programme and design. The findings related to the trainees’ logbook for the general surgical operations of abscess drainage, appendicectomy, inguinal hernia repair, upper and lower GI endoscopy, varicose vein surgery and small bowel anastomosis. The results were analysed by year of training and whether performed independently or supervised. 84 (73%) of trainees returned analysable forms. Abscess drainage and appendicectomy are acquired most often as the three years progress but a few still do not achieve independence by year three. The Profession should insist on ‘Protected Operative Teaching’ for surgical trainees.

7E3 Personal and Professional Development Groups for Junior Hospital Doctors
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You were a junior doctor. In personal and professional development groups at Newham General Hospital in East London, UK, the valued experience was often discovering that each was not alone. Others had ‘strange’ thoughts and feelings. The figure of a junior doctor will be surrounded by radiating lines labelled: blushing, feeling faint, losing 3D thought, frozen memory, challenged by consultants, dreaming of patients, psychosomatic symptoms, unable to stop eye contact, erections, impulse to touch too much, being told off, feeling embarrassed, needing to rescue the deprived, fostering special relationships, scoring PR and PV examinations, enjoying power, etc. Pens or labels will be provided for participants to add ideas or experiences. In the corners will be background to the group, and references; details and email addresses of both authors; invitation to mailing list or web site; and invitation for suggestions.

7E4 The educational needs of doctors with English as a second language when consulting in General Practice in the United Kingdom
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Results of the consulting skills component of the national summative assessment procedure in the United Kingdom, (assessment of videotaped consultations), indicate that the failure rate is significantly higher in those doctors who have had undergraduate medical
training abroad. Preliminary observations suggest that these doctors have specific difficulties that relate not only to linguistic problems, but to cultural differences in 1) communication in general, 2) communication within the medical consultation, and 3) the nature of the teacher/pupil relationship. This research explores these 3 issues through in-depth interviews with such doctors who are currently training in general practice. A better understanding of the educational needs of doctors from abroad should enable educators to provide appropriate training and preparation for work in general practice in the United Kingdom.

7E5 “No such thing as a free lunch” - how free are bleep-free sessions?

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Bleeping weekly educational sessions has been identified as an essential requirement in the clinical training of PRHOs. A GMC review supported by anecdotal evidence identified this issue as a concern. A three phase prospective audit to evaluate the effect of implementing a trust-wide bleeping policy in the provision of bleep-free weekly educational sessions for PRHOs was evaluated.

Phase 1: 6 weeks: a researcher intercepted all bleep interruptions during weekly PRHO teaching. Bleeping reasons were logged into a coding grid.

Phase 2: Implementation of Trust Bleeping Policy.

Phase 3: 6 weeks (repeat of phase 1).

Bleeping incidents were logged and coded pre and post policy implementation. Results showed improved negotiation of bleep responsibility to colleague, a decrease in bleeping incidents during teaching sessions and decrease in non-essential bleep interruptions. Implementation of a bleeping policy improved bleep-free sessions for PRHOs.

7E6 The SHO Record of In-Service Training and Achievement (RITA) and Portfolio

Rose Martin* and R W Newton
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Documentation will be required to support the new SHO RITA process; models are currently being developed and tested. The SHO Portfolio and Record of In–Service Training and Achievement has been developed in the East Region and is currently being piloted in Tayside and Edinburgh amongst all SHOs within medicine and its sub-specialties. The SHO Portfolio aims to promote a more structured approach to SHO training, appraisal and assessment. It is based on the concept of a partnership between SHO and Educational Supervisor; the documentation includes a training agreement which emphasises the responsibilities on both sides in ensuring that learning opportunities are maximised. It enables a continuum of training, incorporating a strategy for the management of poor performance which can be passed from the initial Educational Supervisor to the next, if the training plan is not completed. Split between five sections and based on the GMC’s Good Medical Practice booklet, the final section is designed to enhance the CV and detail critical incident analysis, audit projects, record interesting cases and provide a platform for promoting clinical and educational achievement at interview. Specific Royal College documentation can be inserted and the portfolio itself should be used to inform the Revalidation process.

7E7 General Practice Registrar audit and implementation of change

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General practice registrars (GPRs), submit an audit project as part of the summative assessment process. Assessment of these projects does not require the registrar to implement change nor collect a second data set. From 1988 west of Scotland GPRs were required to submit a completed audit cycle (CAC), which included implementing change and a second data collection. Audit submissions in the 3 years before and after the introduction of CAC were compared. Projects submitted after the introduction of CAC were significantly more likely to have 3 or less criteria (p<0.001), have sample sizes of 50 or less (p<0.001) and have set standards against criteria. 194 projects (92%) submitted as CAC met at least one of the set standards. In year 2000, 76 registrars (90%) implemented successful change in less than 6 months. GPRs are able to devise small, focussed audits which demonstrate the successful implementation of change within their training year.

7E8 The Senior Registrar - a new development in Higher Professional Training in General Practice

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In recognition of the scarcity of opportunities for higher professional training for newly qualified GPs, the Irish College of General Practitioners initiated the position of Senior Registrar (SR) in General Practice. It aims to provide individualised training and experience in clinical, educational and research activities while also promoting greater integration of undergraduate and postgraduate teaching in general practice. Three such posts were established in August 2000. One such post is described here from the perspective of the SR. The activities, structure and management of the post are outlined. Its contribution to the development of Irish general practice is addressed and how it prepares the SR for an active and fulfilling future in general practice is discussed. The difficulties and challenges faced are also described. Reference will be made to the other SR positions in Ireland and to similar initiatives in other countries.
7E9 Psychosocial training in the Family Residency in Spain: present situation and proposals for the future
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The psychosocial training in the family practice residency in Spain, despite the increasing interest and the growing number of educational activities, is not obtaining the desired results. In order to formulate a proposal for curriculum development, a study of the programme in the different teaching units was undertaken. Based on the suggestions of the faculty and on the analysis of experiences in different countries, a series of recommendations and possible lines of development are discussed.

7E10 Step by step to methodological exam: report on first year experiences with the new introduced GP Licence Examination in Austria
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There are three prerequisites for being granted a licence as a GP: 3-year-inhouse rotational training, accompanied by a certification process (longitudinal evaluation) and a summative examination at the end of the training period. This exam was introduced in November 1999 and is held three times a year. The exam is made up of 20-25 case vignettes followed by 1-5 questions in SAQ format. The cases are developed by GPs and are thoroughly reviewed. Required answers are predetermined by GP experts. Answers are corrected by specialists on machine readable sheets, providing PC-based item analysis and scoring. We will report on:

- our attempts to meet quality criteria (objectivity, reliability, validity)
- results of four examinations (total of 372 candidates)
- institutional and organisational experience with the instruction of examination methodology.

7E11 Development of professional doctorates in healthcare disciplines
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Originally, the PhD was a qualification for an academic career. Recently the appropriateness of this qualification has been questioned as it is not necessarily relevant to industry or professional interests. Consequently universities are re-shaping Doctoral level learning by providing flexible, part-time, work-based ‘Professional Doctorates’ (PD). These are “equal in rigour but different in substance” to a PhD. The University of Portsmouth has recently developed an innovative PD programme supporting multi-disciplinary learning in biomedical sciences, chiropractic, medical imaging, nursing and pharmacy. Entry to the programme is at Master’s level, with Doctoral level learning in two parts. A ‘taught’ Part 1 (1-2 years) includes advanced research techniques, professional review and publication and dissemination units. Part 2 (2-3 years) comprises the work-based professional research and development project submitted as a portfolio. This curriculum model, facilitating continuing professional development, is appropriate for all healthcare disciplines and suitable for adoption by other higher education institutions.

7E12 The appointment process for Anaesthetic Registrars in South Thames
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Each 6 months we appoint approximately 25 registrars to our training scheme from about 100 applicants. Historically we used the classical large panel, roundtable, 15 minute interview technique. For the last 18 months we have employed an OSCE style interview process using 4 ‘tables’. Candidates rotate through all tables, where they undergo targeted questioning on different aspects of the person specification that cannot be obtained from their paper application. The advantages are that each candidate is now interviewed for 32 minutes and we are able to explore in greater detail desirable attributes. Furthermore because we are now able to interview up to 50 candidates in one day, the short listing has become a less important part of the process and we can interview a more diverse group. Audits carried out have shown a marked preference for this technique amongst both interviewers and interviewees.
Session 7F        Assessment

7F1  Validity of assessment techniques: students' views differ from observed outcomes

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We assess medical students in Obstetrics and Gynaecology using a combination of four assessment techniques: continuous assessment (CA), multiple essay questions (MEQ), OSCE exam and clinical exam. This study aimed to compare the students’ perception (n=75) of validity of these assessment techniques with actual validity. Validity of each component was assessed by correlation with the final mark. Students’ perception was obtained by asking students what they felt they deserved and what they felt they got in each assessment. In predicting final mark, CA performed worst (r=0.667, followed by MEQ (r=0.791), Clinical (r=0.861) and finally OSCE (r=0.877). In the students’ perception, CA performed best (-3.8% difference), followed by MEQ (-4.9%), Clinical (-5.4%) and finally OSCE (-11%). There is a clear inverse relationship (r=0.705) between the students’ perception of assessment validity and the actual validity in this assessment scenario.

7F2  Assessment reliability in an MSc programme in Diabetes

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Reliability within examinations is a precondition to validity. In order to confirm internal reliability in assessment instruments, a range of measures can be employed. This study aimed to establish the reliability of assessments used in a Diabetes Masters programme. Percentage scores from the attendance cohort (1999/00) for the four assessments in a ‘management of diabetes’ module were analysed, resulting in an alpha coefficient of .75. Correlations between individual assessments and the total assessment scores (corrected for the individual assessment) were .58, .41, .64 and .57. Both the alpha and item-total correlations indicate a satisfactory level of internal reliability. The figures indicate that all assessments evaluate a common skills range. Alphas greater than .8 are recognised as achievable in professional examinations. In order to attain this it will be necessary to evaluate assessment two further to understand why this essay has a lower correlation with the overall grade achieved.

7F3  Two years of progress-testing at the Charité

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The Humboldt-University Progress-Test is based on the principles for Progress-Testing developed in the Netherlands. It will be shown that the format works also within a traditional German medical faculty. The results of the four tests organized in Berlin so far will be presented, including a summary of our subsequently performed test-evaluation programme. Special attention will be payed to the comparison of the students in the reformed curriculum vs. the students in the traditional curriculum in all respects.

7F4  OSCE for a Paediatric Trainee Internship examination: multicentric experience

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The University of Chile and the Catholic University, the main Chilean Universities, started in 2000 a joint program in order to consolidate and improve the assessment system for the paediatric training period (internship 6th year). The objective of the program was to improve the quality of the final assessment of clinical competences of the Paediatric trainee (internship) in two Chilean Universities. Members of both Schools of Medicine have developed, organized, implemented and run an identical, simultaneous, multicentric and inter-university 20 station OSCE in order to assess 124 students; to analyze the results and statistically compare them to other traditional assessment methods. Questionnaires were used for considering the results and opinions as well as academic opinions before and after the OSCE. The OSCE allowed the measurement of main objectives in all domains and the components of predetermined clinical competences. Statistical analysis of results showed the advantages of this method in relation to the traditional exam. The results of the questionnaire analysis are presented and discussed. Results permit the recommendation of the OSCE as a clinical examination of the Paediatric trainee at the end of the internship period in both Schools of Medicine.

7F5  Third year medical student written history and physicals: how many is enough?

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The aim was to determine when students can reliably write a history and physical. In 1998-99, faculty ranked 20 specific aspects of 10 student write-ups, using a validated, 4-point Likert scale rating form. We assessed intra-write up reliability/correlation and inter-write up reliability (Cronbach’s alpha). Data were available for 240 students (1998-1999). The table summarizes the
number of write-ups necessary to achieve a specific level of agreement for seven of the 20 rated categories.

<table>
<thead>
<tr>
<th>Write-up Variable</th>
<th>(a \geq 0.7)</th>
<th>(a \geq 0.8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Complaint</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>HPI (degree that history...</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>PE (precision)</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>Problem List (specificity of...</td>
<td>4</td>
<td>Never</td>
</tr>
<tr>
<td>Analysis (level/depth)</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Scholarship (level/depth)</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Overall</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

Items most correlated with the overall score: Assessment and Plan (.83), Level of Analysis (.7), HPI (.64), and Level of Scholarship (.6). It is concluded that fostering a student’s transition from “Reporter” to “Interpreter” requires 8-10 written H&Ps.

### 7F6 Student fitness to practise procedures

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Students can be suspended from their course for a number of reasons such as health, conduct and academic progress. These three do not cover specific professional areas related to medicine and so the School of Medicine University of Southampton developed student fitness to practise procedures. These procedures are based on a number of GMC documents and link into the University’s regulations and have been used on a number of occasions. The presentation will explore a number of case scenarios to illustrate that there is often overlap between the different areas, how the fitness to practise procedures need to reflect current GMC professional conduct guidance and why the system needs to be fair, transparent and open.

### 7F7 Deriving the assessment framework for the Three Royal Colleges Diploma in Prison Medicine

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Prisoners suffer from high levels of mental health problems, substance misuse, communicable diseases and chronic physical illness. But health services for UK prisoners have been isolated from the wider health community in the NHS. Improving the health and health care of prisoners has not been a priority for either the Prison Service or the NHS. As a result, despite patches of good practice, services overall have fallen short of collective aspirations. As a contribution to CPD for prison medical officers, three UK Royal Colleges (General Practice, Physicians, Psychiatry) have established a Diploma in Prison Medicine. The Diploma is delivered by the University of Nottingham, but the assessment and quality assurance framework was developed and is implemented by the Examination Board from the Royal Colleges. We describe here the derivation of the assessment framework, both content and methods, and present data from the first three years of the Diploma.

### 7F8 Assessment in an outcome-based curriculum at the International Medical University (IMU), Malaysia

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Eight major outcomes were identified for the clinical programme of the International Medical University (IMU). The outcomes form the basis to reflect the competencies expected of our graduates. Task-based study-guides, a community and family case study (CFCS) and the learning portfolio form our core curriculum. We employ a variety of assessment tools to assess the competencies achieved in the first and second years. These include Bohm examinations as well as the portfolio. Both OSPE and OSCE are used in the professional examinations to assess the various outcomes. An OSCE grid has been developed to evaluate the effectiveness of our assessment in measuring the IMU outcomes. Issues related to community and health are assessed in the CFCS. The final semester is for senior clerkship and a structured exit viva at the end will be used to assess the competency in the outcomes before the students graduate.

### 7F9 Psychosocial profile of medical students as a predictor of the academic success in medical school in Mexico

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We examined the contribution of psychosocial measures in predicting academic success among Mexican medical students. Participants were 694 medical students at the Autonomous University of Nuevo Leon, in Mexico. A set of psychosocial scales, including Jefferson Medical College’s noncognitive questionnaire, was administered. Data supported the psychometrics of the instruments. Participants were divided into 3 groups. Group 1 consisted of those who succeeded in the first and second years of medical school (n=277). Group 2 included those students who were put on probation (n=339). Group 3 comprised those who were dismissed (n=78). We compared these 3 groups on a number of psychosocial measures, and found significant differences among the groups on the following scales: Depression, Stress Life Events, Terman Merrill IQ, Self-esteem, Cognitive Process or
Psychometric data for Jefferson Medical College’s Non Cognitive Questionnaire in Mexican medical students

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A Spanish version of the Jefferson Medical College’s Noncognitive Questionnaire was administered to 700 first year medical students at the Autonomous University of Nuevo Leon, in Mexico. Factor analysis resulted in a factor matrix that was comparable to that obtained between noncognitive scale scores and external criterion measures. Results of this study support the construct validity, criterion-related validity, and internal consistency aspect of reliability (Cronbach’s alpha) of the noncognitive measures (general anxiety, test anxiety, loneliness, self-esteem, extraversion, stressful life events, neuroticism and locus of control) in Mexican medical students. We concluded that the noncognitive questionnaire, in general, is a valid and reliable instrument for Mexican medical students to investigate the contribution of personal qualities, personality factors and psychosocial characteristics in predicting academic success in medical school, and professional success in medical practice, which is the broader goal of this project.

Portfolio based assessment of students during their internship

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Portfolio is an assessment tool that allows students to record and reflect on key events of their daily activities. Our sixth year (internship) students record their daily activities, their reactions to their real life work, they identify their learning needs, and their studying strategies, including self evaluation. The faculty gives student feedback, helps her/him to apply her/his learning in a practical context, and challenges and motivates the intern to advance in their learning. Thirteen students and four faculties were involved in this project. Despite the lack of previous experience with the instrument, students and faculties found it useful. Faculty development activities directed towards improving the use of the portfolio, and protecting time (minimum 2 hours/week) to meet with the students are changes we are planning to perfect its use. Portfolio is not used for promotion but for developing and consolidating adult and life-long learning strategies.

Session 7G  Teaching and learning (1)

What do first year medical students value in a learning situation?

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Lack of appropriate learning skills when entering medical school is one the major obstacles our students face during their first year at medical school. We used the critical incident technique to determine which elements in a learning episode during high school were highly valued as most effective by students admitted to medical school. Incidents were coded for learning characteristics, and for disciplines mentioned. Seventy-one medical students recently admitted were included in the study. Faculty personal aptitudes was the most frequently cited element (34%), followed by practical teaching (22%), students’ personal growth or transformation (13%), influence of the evaluation (12%), team working (8%), and good teaching resources (8%). Sciences related to medicine were the most influential (65%), while humanistic disciplines (23%), and exact sciences (9%) were mentioned too. These data permit the design of educational activities using those elements in order to improve their efficacy.

Application of Schon’s model for small-group teaching

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Schon proposed that physicians acquire expertise through a process of reflection in and on action. This process is triggered by abnormal cases seen in the clinic, which cause ‘surprises’. These surprises lead to the investigation of the new phenomena and experimentation of new course of actions, which are, ultimately, integrated into practice. We present an application of Schon’s model for small-group teaching. An interactive workshop, based on the study of a real patient followed by her doctor for 15 years, was designed to cause ‘surprises’ among participants and make them go through the process described by Schon. This method was assessed during a CME event. Results from the administration of a multiple choice questionnaire pre- and post-intervention showed a significant improvement in knowledge following the event (p<.05). In addition to integrating Schon’s model in teaching practices, this educational approach appears to provide the basis for self-directed learning among participants.
7G3 Teaching and learning about case presentations: the need for early intervention

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At Imperial College School of Medicine, students are introduced to case presentations during their second year. During a three-hour session, the content and context of case presentations are discussed and students participate in a brainstorming activity to identify characteristics of effective presentations. Students then work in small groups to prepare and deliver a case presentation based on a videotaped interview. Approximately five presentations are made in each session. In addition to the content of the presentation, students receive feedback on their presentation skills. Data will be presented from an assessment conducted three-months after the session and a clinical attachment. The assessment examines students’ knowledge in relation to the content and context of presentations and the features of effective presentations. Students are also asked about their experiences of case presentations during their clinical attachments and if there is anything else they would like to have addressed in the session.

7G4 Master teacher, master learner

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The aim of this study was to make use of a whole brain teaching and learning model for the study-unit of tooth morphology in a 3rd year dental curriculum to accommodate and develop students’ knowledge, skills and attitudes. The Herrmann Whole Brain Model on teaching and learning was used to stimulate a learning-centred approach. His instrument was used to determine thinking style preferences of the individual students and the group as a whole. Whole brain teaching interventions were designed to accommodate and develop diverse thinking style preferences during learning activities. The results of this study indicated a significant improvement of students’ retention, participation and attitudes toward the content and learning as well as group interaction and problem solving. The impact of this pre-clinical intervention in the third year is still evident and contributing to the students’ performances in their clinical work during the fourth year. This success had a major impact on the decision of the faculty to incorporate whole brain teaching and learning in the new outcomes-based learning-centred curriculum for dentistry.

7G5 Hemisphericity in medical students

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From Sperry studies, attention has been focused on brain dominance or hemisphericity. Left hemisphere (LH) is considered better for verbal tasks and right (RH) for visual. For the teaching-learning process, it is important to consider which learning style (verbal or visual) is more used by students. In this project, nine medicine students were tested in five cognitive paradigms; reaction time was measured. Paradigms were: (1) simple reaction time (SRT) to familiarize with the procedure; (2) memory using letters (LS); (3) memory using patterns (PM); (4) patterns recognition using letters (LTM); and (5) patterns recognition using patterns (PC). All subjects had the lowest reaction time in the SRT, in second were LS and PM, third LTM and fourth PC. These suggest that the cognitive process in which memory is involved are well developed (LH), but the same is not true for the cognitive processes involved in pattern recognition (RH).

7G6 Medical student preferences for an “ideal textbook” of Obstetrics and Gynaecology

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Although medical students increasingly use CAL and the internet for their medical education, and much effort is put into the presentation of this information, the textbook still remains the chief tool for self directed learning. There is surprisingly little data concerning student opinion of the form and content of textbooks. We surveyed 88 (of approximately 100) 4th year medical students undergoing a course in Obstetrics and Gynaecology (O & G) about their “ideal textbook” for O & G. 46% of students wanted a book of A5 size, 80% wanted some coloured content, 83% wanted the type in a medium size, 75% wished it to be made up of lists and short notes and 67% with one topic per page or double page. 79% of students wanted space for notes within the text pages. It appears there is consensus amongst medical students about the content and form of textbooks of O & G.

7G7 What can be learnt from medical atlases? Expert and novice visual schemata in breast sonography

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Medical education in the visual domain focuses on teaching diagnostic processes verbally, usually by discussion between expert and trainee. A problem with this approach is that visual medical information may not be easily or efficiently transmitted in this mode. Our research aims to address the degree to which observers are able to extract visual features of breast sonograms, which are diagnostically significant. The first study compared expert and novice interpretations of breast sonograms taken from medical atlases. It was found that novices do not trail far behind experts in accuracy. The second study aimed to investigate the overlap between diagnostic categories and visual characteristics in breast sonograms by examining novices’ image categorisation strategies. This further confirmed that readily available visual information

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lends itself to making diagnostic classifications. The evidence shows that medical atlases aimed at illustrating typical appearances are useful, but should perhaps cover less typical appearances.

**7G8** Community-based Public Health Education in Healthy City Project

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The drastic changes in the field of public health require educational innovation in the university. The development of a new learning strategy should be problem-solving; student autonomy; holistic approach to the complicated physical-mental-social phenomenon. We have performed community-based public health education integrating family health, school health, occupational health and community health since 1979. The persistent exposure of the student into the community dynamics is useful to understand the health promotion strategy. The education in the healthy city model is especially effective to recognize community empowerment, collaboration with the inhabitants, care workers, researchers and policy makers, the partnership between the community and the academic, social support networking and policy making for amenity community.

**7G9** Two different types of professorial authority: results in a traditional faculty of medicine

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We compare the results of the final examination of four groups of students. Two of them had the Embryology course on an annual, and the other on a semi-annual basis. All groups had the same professor during the entire course. In one of the groups in each term, the examination was performed on a highly authoritarian basis, for example: seat assignment in alphabetical order; once the professor was in the lecture hall, the students have to use only one of the access doors; five minutes after the scheduled start time re-entry was forbidden, students were not allowed to talk to each other, among others. In the other groups none of the above conditions was demanded. A Z test on the final exam results at a level of confidence of 95% was done. We did not find a significant difference.

**7G10** The “excellent teacher” seen by mid-course students

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Faculdade de Medicina de Lisboa, University of Lisbon, Av Prof Egas Moniz, Piso 1, 1649-028 Lisboa Codex, PORTUGAL

The importance of a role model in the teaching-learning process is well accepted. The objective of the study was to identify perceptions of mid-course students on the characteristics of an “excellent teacher”. Third year students (n=66) completed a semi-structured questionnaire on the profile of an excellent teacher (open questions followed by 32 specific characteristics - Likert scale). Quantitative analysis reveals a teacher is perceived as:

- **information provider** (selection of topics to be taught 99%; transmission of clear information 97%; distinguishing essential from non-essential knowledge 97%).
- **facilitator** (creating the opportunities for practical training 95%; available to students 90%)
- **assessor** (fair when assessing 94%)
- **nice person** (agreeable when dealing with students 94%), and
- **planner** (organizing the program 90%; integration of the discipline in other course areas 83%)

Qualitative analysis confirms, in general, these results. Curiously enough, 21% of the students state as non-important qualities: being a role model, having a broad culture, good leadership and good research abilities. A discussion will take place on the implications for the teaching-learning process.

**7G11** Underrepresented minority (URM) students’ perception of mentoring, advising and role modelling in medical school

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This study investigates the underrepresented minority (URM) students’ perception of particular characteristics and functions associated with their mentor, adviser, or role models. A two-part brief questionnaire was given to 56 URM and non-URM first and second year medical students studying at the University of Illinois at Chicago College of Medicine. Paired t-test revealed significant results among all levels of comparisons that include opinion differences between URM and non-URMs, mentor, role model and advisor functions and characteristics like empathy, maturity, resourcefulness, providing resources, and availability. The results show a clear differentiation among the perceived characteristics and expected functions of mentors, advisors and role models between URMs and non-URMs. Results from the first part of the questionnaire are reinforced by an evaluation of the second part that includes open responses from students emphasizing particular qualities and responsibilities for each role.
Session 7H  Teaching and learning (2)

7H1  “Project Carrapato (‘Tick’): a psychological focus in medical training

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The separation of the basic course from the clinical course can be a cause of anguish and conflict in medical students. With the aim of reducing this conflict, the teaching body at the medical school developed the “Project Carrapato (‘Tick’)” during the reception for the year 2000 freshmen. This project familiarised the freshmen with the medical reality. The students accompanied the hospital activities of the medical staff for a week. After this, they were divided into 5 reflection groups which were coordinated by the GRAPEME professionals and FCM docents. The project was seen as a possible preventive action because it helped students to: reflect and expose their expectations, anguish and fears; question their fantasies; experience limitations. This can help to avoid or reduce the development of inadequate defence mechanisms that hinder personal and professional growth.

* next to (jargon)

7H2  Evaluating of videotape sessions for learning communication skills

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Evaluating training systems to develop and assess communication skills is not easy. We report an extension of our experience. Since 1997, we have carried out a short training program in doctor-patient communication for first year residents; it incorporates simulated patients, role-play techniques and each participant is videotaped. 81 residents have taken part. Before and after the course, a validated video showing a questionable doctor-patient interview is presented to the students for evaluation of the doctor’s communication skills, scored on a scale from 0 to 10. The first day 25-percentile of the video interview score varied every year and sometimes did not show a normal distribution, nevertheless, the number of students that scored high the first day always fell down notoriously on the last day’s evaluation: in 1997 from 27% to 14%; in 1998 from 39% to 6%; in 1999 from 50% to 37% and in 2000 from 24% to 6%. It is concluded that videos of validated simulations of clinical interviews can help to evaluate the usefulness of courses such as the one reported.

7H3  Acting up? The recruitment and maintenance of a professional role play team for undergraduate and postgraduate medical training and assessment

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Role play is widely used in medical education. Professional role players provide constructive teaching for participant development. The recruitment of individuals with the aptitude for professional role play is key. Theatrical sourcing may have its uses, but other attributes need consideration. Our role play team has 10 years’ experience. Its role players are consistently involved in undergraduate and specialist postgraduate training. Demographics, educational/vocational qualifications, professional experience and educational interests of role players were collected. Supporting evaluation comes from postgraduate delegates (all specialties), facilitators and students. Not all actors can role play, not all role players can act. Personal skills, articulacy, intellectual involvement, improvisation and teaching skills are crucial. Results, skills lists, recruitment criteria and recommendations are presented. Training role players is less of an issue than the initial recruitment of individuals capable of developing as medical educators.

7H4  Analysis of clinical competence at pre-graduate level

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The overall objective of this study is to explore what opportunities the clinical clerkship offers medical students to develop their clinical competence, and how these opportunities can be maximized. The study takes its theoretical starting point in a semantic analysis of the term ‘clinical competence’, showing that it means both the ability and right to act adequately in clinical situations. A general aim of clinical clerkships is to train medical students in acting adequately in a clinical situation. Data from our pilot field observations indicate that it is difficult to reach this aim, since the students are only rarely given the right to act. Often they are passive observers or performing isolated repetitive tasks without feedback from trainers. Therefore, our working hypothesis is that learning clinical competence requires that students participate as legitimate members of the community. This hypothesis is described in a set of ideal criteria.
7H5 Use of paper-cases in undergraduate clinical Dermatology education in Germany

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In Germany practical dermatology teaching is primarily performed as a bedside course. Large numbers of students made it increasingly difficult to find appropriate patients for demonstration. In recent years we developed paper-cases (short story and photo material), which were tried over 2.5 years in PBL-seminars with voluntary and randomly assigned students. In each group the students matched the intended teaching goals in 75% (mean). After a tutor-training our residents were allowed to use the paper-cases individually to substitute patients when necessary. Last semester 14% of the patients needed were replaced by paper cases. A third of the residents used this opportunity and evaluated it as a good alternative. 80% of the students received paper-case teaching, 77% of them evaluated this type of education either good (55%) or very good (22%). We conclude that paper-cases are a useful alternative if there are not enough patients.

7H6 Development of a Learning Resource Centre for healthcare professionals: an example of an innovative enterprise

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In 1998, the need to develop a learning skill centre arose at United Medical Education Consortium (UMEC) in London with resources for multi-professional teaching and learning in healthcare educational approaches, administration, research, clinical and computer skills. Logs of all the users of the centre between 25 February 1998 and 28 February 2001 were kept. All the courses run by the centre were monitored and evaluated using standardised evaluation forms. Data about activities were analysed to compare the usage of the centre’s resources by different groups in different years (25 February 1998 and 27th February 2001) and their needs for skill facilities. The evaluation results show that availability of flexible skills training facilities for UMEC members and visitors have created an effective teaching and learning environment. Our future plan involves investigating how to provide more informed multidisciplinary teaching using new technology and extending the services to a wider audience.

7H7 Legal theories of recourse for failed medical students in the United States

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Medical students aggrieved by a failing grade(s) or disenrollment sometimes consider legal action. In the United States students typically cite an institutional breach of the constitutional right to procedural propriety (“procedural due process”) and/or arbitrary motivation (“substantive due process”). Caselaw has established that constitutional protections are owed medical students, but courts have consistently offered a presumption of legitimacy to institutions’ decisions and students have seldom prevailed when alleging inadequate due process. Although minimally exercised to date, prospective medical student plaintiffs may begin to consider alternative premise(s) for a legal challenge. Increasingly, courts view students as consumers with expectations for acceptable institutional performance of services based on “implied contract.” Medical schools should be cognizant of the concept of “contract” and of stipulations in their own handbooks. If these documents can be read as “implied contracts” institutions must ensure they are actually doing what they say they are doing.

7H8 An evaluation of organising student participation in curriculum reform using a mentoring programme at the Nelson R Mandela School of Medicine, University of Natal, Durban, South Africa

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In implementing (January 2001) a student-centred curriculum at the Nelson R Mandela School of Medicine, an already successful (re: addressing student needs) mentoring programme involving 4th and 5th year students, was modified to assist 1st year students cope with the new learning paradigm. First year students enrolled for Curriculum 2001 were organised into twenty tutorial groups (n = ± 200) for Module 1, each group being allocated a trained facilitator. Twenty senior students underwent training to work with these tutorial groups, with the aim to provide peer support for group members. Mentors meet regularly with their groups and with the year co-ordinator for input, clarification and for evaluation of student progress and needs. Preliminary results indicate that 1st year students have embraced the concept of PBL. Issues, for example, relating to the small group process and timetabling, have been addressed by the mentors and the year co-ordinator.

7H9 Medical education – more than learning?

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For most medical students, medical education is mainly an instrument to acquire the knowledge to treat the patients. In our poster we want to discuss chances existing in medical education in Germany. Does medical education offer alternatives an an extra qualification, as a field of research and as a basis for a career?
Session 7I  Continuing professional development (1)

7I1  The roles of hospital consultants: more than just patients and students
Patsy Stark
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Hospital consultants undertake roles extending beyond clinical medicine and undergraduate teaching. In most healthcare systems they are increasingly required to do more. How do they identify and prioritise roles and cope with increasing pressures? A study carried out at University of Leeds School of Medicine and the Leeds Teaching Hospitals Trust aimed to discover the range of consultants' roles, how they prioritise activities and their perceptions of change. Semi-structured interviews with hospital consultants were conducted. Analysis of the data was performed using qualitative methods. The participants revealed wide-ranging roles inside and outside the employing organisation, strong allegiances to aspects of their work and frustrations about increasing demands. In general this was not reflected in job plans or contracts. It was concluded that consultant contracts and job plans must recognise not only the obvious clinical and undergraduate teaching roles but also those which have impact on professional organisations multiprofessional groups and other institutions.

7I2  Continuing medical education X indexation? Authors' opinions about editorial policies of a Brazilian academic journal
Maria de Lourdes Veronese Rodrigues*, Valderes Aparecida Coelho Falsachi and Julio Cesar Voltarelli
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The main objective of this investigation was to find out authors' opinions about some aspects of editorial policies of an academic journal, published by a Brazilian Medical School/University Hospital. This journal emphasizes Continuing Medical Education, publishing mainly review papers and topic symposia, and it is not indexed in MEDLINE. The instrument used was a self-administered, non-identified questionnaire answered by 28 members of the scientific community, authors of some papers published by the journal, in the last three years. On a three points scale (3 - definitely agree, or high level of adequacy; 1 - definitely disagree, or inadequate), participants rated the quality of different aspects of editorial policies adopted by Revista Medicina-Ribeirão Preto (Brazil). Most authors agreed with the policy "emphasis in continuing medical education" (mean = 2.39, s = 1.22) even if it prevents indexation in MEDLINE.

7I3  Learning HSR by doing: forming parallel learning groups
Saeed Asefzadeh
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Health Systems Research (HSR) is a necessary approach for resolving health problems. We assessed the educational needs of the health workers for HSR through focused group discussions in order to develop a module that can enable them to participate actively in HSR. A module for the health workers has been designed in 10 steps as a practical guide for problem solving – from finding problems to evaluating the solution. The focus of our work is a change from traditional workshops to continuous in-the-field training workshops using learning by doing method. At least two hours a week, the health workers as a learning group come together and one step of the module is taught and practised on the real identified problems. The participants track and work on the step during the week. In this way the learning group makes up a parallel learning group which works continuously and learns autonomously to develop the health organisation.

7I4  Towards a flexible workforce - a basis for change
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The Scottish Executive seeks increased flexibility among healthcare professionals. The Scottish Council for Postgraduate Medical and Dental Education has commissioned a study of perceptions of flexible working among non-training grade doctors and dentists. Hospital consultants have been selected as the first group for study and this will be the first comprehensive study of hospital consultants in Scotland. The aims of the study are:

- to elicit the views of non-training grade doctors and dentists regarding flexible working;
- to assess the implications of increased flexibility on continuing professional development;
- to ascertain levels of job satisfaction and occupational stress.

Focus groups and/or interviews will be used to inform the design of a questionnaire. Follow-up interviews will be conducted to clarify/expand on issues arising from the survey. Selected results from the survey of hospital consultants will be presented.
715 Ensuring cost-effective CPD: perspectives, problems and policy

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CPD must be cost-effective if the optimal quantity is to be funded within health care systems burdened by resource constraints. This paper details the requirements for ensuring effective and cost-effective CPD established as part of an investigation into CPD funding, provision and participation in the UK NHS. The perspectives for ensuring cost-effective CPD are framed within a taxonomy that describes an educational intervention (Bullock and Thomas, 1997). Thus issues pertinent to both provider and participant: access, management and planning, curriculum and pedagogy, setting, assessment and evaluation are addressed. There are however a number of constraints that hinder the adoption of cost-effective CPD strategies. Empirical and primary evidence that suggests current practice fails to meet the requirements is presented and the implications for CPD policy in the UK are discussed.

716 Improving your skills in preventive medicine: this CME workshop works!

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A 90-minute workshop offered to small groups has been developed to help family physicians to include evidence-based intervention to their periodic health examination (PHE). After the workshop, participants completed a questionnaire with opened and closed questions. Between September 1996 and December 1997, 40 workshops were held reaching 667 participants (16.7 participants/workshop) in all regions of the province of Quebec. The evaluations (98.5% response rate) showed that participants have reached the workshop objectives (2.05 on the Likert scale –3 to +3). The most important messages retained were a better choice of tests (34.9%) and physician’s self involvement (27.2%). Changes anticipated in their practice were: better screening of tests (38.9%), enhancement of knowledge (18.9%) and to insist on counselling (12.8%). Role playing and discussion with peers were effective methods used to produce anticipated changes in the practice of family physicians.

717 CME program in Kuwait

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The Kuwait Institute for Medical Specialization is the designated authority for implementing a unified continuing medical education scheme. The CME Center administers the scheme, which commenced in September 2000. The current phase covers medical and dental practitioners. Participation in CME activities is optional, but includes reinforcement policies. The program operates in 5-year cycles, with practitioners expected to acquire a minimum of 250 credit points within the cycle. CME activities fall into one of two categories. The web site of the CME Center at www.kims.org.kw/cme provides details of the scheme, and an online facility for participants to register, and for CME providers to apply for accreditation of activities. Program implementation is monitored by reviewing random samples of organizers and participants. Peer review by an external evaluator has led to quality assurance. International recognition has been received via accreditation by Royal Colleges in North America and Europe.

718 The theory of perspective transformation and its applicability to CME

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In the field of adult education, Jack Mezirow published his theory of Perspective Transformation which has become one of the most important contributions to the recent adult education literature. He identified 10 phases a learner goes through before he/she incorporates a new perspective. There are many lessons from this theory that we can apply to our work in CME. After interacting with the poster, the participant will be able to:

1. identify parallels between issues faced by practitioners in CME and contributions of the theory of Perspective Transformation;
2. assess the application of key concepts of the theory to needs assessment, design and evaluation

The key point of the presentation is that when designing CME one should consider that in order to incorporate a new perspective, a learner may go through ten phases that begin with a disorienting dilemma.

719 The transtheoretical model of behaviour change: does it apply to clinical practices?

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The transtheoretical model (TTM) proposes that people go through a series of 5 different stages of readiness when adopting new behaviours. Stage-specific educational interventions based on this model were shown to facilitate adoption of healthy behaviours in patients. In this presentation, we show evidence that the TTM may also be useful with physicians. A study was carried out on a convenient sample of 195 general practitioners attending continuing medical education in cardiology. Physicians were asked to stage themselves according to their readiness to prescribe an ACE inhibitor to a high risk cardiac patient, to rate the importance they put on this medical practice and to indicate their degree of confidence in overcoming barriers associated with the performance of this clinical behaviour. The relationship between readiness to change behaviour on one hand, and self-confidence and importance on the other hand, were consistent with predictions made from the TTM.
7J1 Sharing visions: working with CPD coordinators in General Practice

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During 2000, twenty general practitioners were recruited to work part-time with the Dept of Postgraduate Education for General Practice in Wales as ‘CPD co-ordinators’. Each general practitioner was employed to work one day a week to develop a managed programme of CPD in the locality for which they were responsible, drawing on local resources and supported with an operational budget. Since all these staff were facing new challenges in working as educational managers, a two-day workshop was held to assist them in developing a vision for their future work. This workshop used a variety of methods, including an ‘imagination exercise in which the participants were asked to draw graphical representations of the ideals they wished to pursue in their work. The concepts were then discussed and developed into themes. This presentation describes the methods used in the workshop and presents the outcome in summary form.

7J2 The “Advanced Training Practice”: a questionnaire and interview-based study of their role

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In the West Midlands Region, UK, 6 practices have been designated “Advanced Training Practices” (ATPs). They offer specialised, often remedial, training to GP Registrars who, for example, have failed summative assessment. Registrars, trainers and other stakeholders have previously been studied to assess support offered for communication skills: this study extends this work by questionnaire and interview with trainers, to assess the perceived value of ATPs. Many Registrars at ATPs are overseas graduates. Major issues are poor English language and communication, (eg from doctors accustomed to a doctor-centred environment), poor cross-cultural understanding, poor study skills and defective knowledge. For trainers, a major issue is the extent to which Registrars are “trainable”; however, they have confidence in their ability to train and assess. The specialised needs of Registrars are adequately met, but the level of additional support, particularly through commercially available materials, requires expansion.

7J3 Does gender make a difference? CME for the female physician

Jane Tipping* and Jill Donahue
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The population of female physicians in Canada is growing such that the percentage of female primary care physicians in practice is equal to males. CME is still designed and conducted based on the learning needs of a population that has been predominantly male. This research questions the assumption that the two genders are the same in their approaches to learning. The research identifies ways in which learning differs for female physicians in terms of preferred activity, motivation and participation. In addition, the particular challenges female physicians encounter in CME will be discussed along with strategies that may better meet the needs of this group.

7J4 Strategic planning for effective partnerships

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We have reached a point in the evolution of CME whereby the creation of true partnerships between stakeholders and the effective pooling of resources is becoming a necessity. Within the past several years, the role of the pharmaceutical industry in Canada as a credible partner and provider of CME has become evident. Without dialogue between the stakeholder, duplication of efforts, territorial issues and miscommunication can arise resulting in less value for the learner. Ways to align mutual goals are sorely needed. This presentation will discuss the directions in which CME is growing and describe attempts of Merck Frosst Canada to align itself with the developing needs of the field. The presentation will critique a needs assessment technique used with 36 Canadian CME leaders; discuss results; the implications of pharmaceutical involvement in CME; and help determine ways in which partnership between academia, industry and others responsible for CME can grow.

7J5 Integrating practice reflection and practice adjustment planning into the design of a CME meeting

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The new context of Continuing Professional Development (CPD) and of the Maintenance of Certification (MOC) of the Royal College of Physicians in Canada, brings an important pathway to ensure one’s CPD: the development of Personal Learning Projects (PLP). At the end of each half-day of a scientific meeting, periods of “reflection on my practice” (called CPD modules) are conducted by a facilitator as an integrated part of the program. Module 1 serves as an introduction to CPD, PLP and practice reflection generalities. Module 2 will help the participants to select specific key-messages derived from educational sessions to be applied to their practice environment (selecting own PLP). Module 3 helps to plan the validation and the implementation of their PLP once they are back to work. This model of intervention in CME meetings facilitates the linking between theory and practice.
The Catalan Council of Physicians’ Colleges Accreditation Diploma in Continuing Medical Education

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The Catalan Council of Physicians’ Colleges has initiated an individual accreditation system, based on accredited Continuing Medical Education (CME). The system is voluntary and physicians can opt to obtain the Diploma of College Accreditation if the following prerequisites are achieved: a minimum of 10 credits obtained from the CME, accumulated to a minimum of 3 training activities carried out within the two previous years. The system includes a Technical Accreditation Office which deals with technical and administrative aspects and the Accreditation Commission which determines the accreditation system and grants the credits to be endorsed by the Governing Boards of the 4 Physicians’ Colleges in Catalonia (Barcelona, Girona, and Tarragona). This paper contains the first 100 accreditation requests, the percentages of concessions and denials, as well as the average of credits obtained, the activities presented, and a description of age and gender among other parameters of interest.

International medical education

Differences in learning style and satisfaction with Residency training for United States and internationally trained students

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A national sample of medical residents training in the United States was surveyed about their residency experience. 3,604 returned usable surveys for a 64% response rate. Analyses examined ratings of satisfaction and what contributed most to learning experience for US trained students compared with the respondents who completed undergraduate medical education outside the US (IMGs). Results show that IMGs reported less time with attending physicians (5.61 vs. 4.94, 7-point scale) and were overall less satisfied with their residency experience (5.14 vs. 4.78). US trained students rated contact with attending physicians and other residents as contributing most to their learning experience, while IMGs rated reading, patient rounds and lectures as the most important elements. These results suggest important differences both as to how IMGs learn and the structure of their residency training programs. Results are discussed with an eye towards students’ expectations and specialty selection.

Crossing borders - The Berlin Biomedical Exchange Office

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“To promote international education and qualification of medical students” is the mission of the Berlin Biomedical Exchange Office (BBEO), which was initially founded in 1996 as a cooperation project between the medical faculties of Humboldt-Universität (Charité) and Freie Universität Berlin (University Hospital Benjamin Franklin). The activities of the BBEO are:

International Exchange

- ERASMUS/SOKRATES
- Biomedical Sciences Exchange Program between North America and Europe (BMEP)
- Bilateral Cooperation
- International Courses in English

New Technologies in Education

- Medic@l Deutsch
- MedVoice
- IMIPPP
- Other projects
Schools in Germany. The aim of our survey was to find out more about the actual situation regarding communication skills training as part of the training at German Medical Schools.

**7K5 Reform of the medical educational system in Georgia**

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Tbilisi Medical State University prepares annually 500 specialists in medicine and pharmacy. Ten years ago our country moved to a new economic formation under difficult social and economical conditions and faced the necessity for reforms in the medical educational system. Following the Soviet era, and without central financing, medical education tries to fill the vacuum with “European air”. At the Medical University reform has been partially implemented. The learning process consists of three stages:

1. Two years – basic course – examination
2. Three years – clinical course – examination
3. Two years – specialization – state examination certification (specialty – medical affairs, qualification – physician)

A net of University clinics has been created as well as a rectorial post. The second step of the reform involved the establishment of outcome-based education, development and optimization of the learning process, translation of standard educational programs and textbooks, and acquaintance with the European educational system and standards. Realization of this goal is fairly difficult without support from the international community.

**7K6 Results and main objectives of the first stage of education reform at the TSMU**

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Based on the tradition of European medical education, a high medical school was founded in Georgia in 1918; its successor is Tbilisi State Medical University. A new period of this high school started in 1992, when total autonomy was given to the high schools in independent Georgia. Since this time it has become possible to implement the cardinal changes in medical education and to engage highly qualified pedagogical and medical staff, which was quite difficult during the period of transition from one politico-economic system to another. In that period, well-known medical schools in the USA, Austria, Germany, France, Spain, Turkey, Egypt, etc. became our partners. At Tbilisi State Medical University there are departments of General Practice, Pediatrics, Preventive Medicine and Healthcare Management, Stomatology, Military Medicine, Medical Biology, Psychosomatic Medicine,
Psychotherapy and Pharmacy. Studies in the faculty of General Practice consist of 14 semesters, in total 8800 academic hours. In our opinion, the curriculum is overloaded and a revision of the teaching methodology is needed. We aim to have close integration with European medical schools, which will give us an opportunity of reciprocal recognition of qualifications.

7K8  Counting the uncounted: estimating the number of overseas doctors in training grades in the UK currently not employed in the NHS

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The main aims of this project were to:
- Estimate the size of the pool of unemployed overseas doctors in the UK and to indicate its distribution across specialties and subspecialties;
- Determine the career and job-seeking strategies of these doctors;
- Describe the scope for improving these doctors’ prospects of employment;
- Estimate the background availability of posts.

Because of their unemployment, there are no records of unemployed overseas doctors in the UK. This project therefore addressed the challenge of counting the uncounted. An approach to estimation was therefore selected which involved adopting a variety of methods and triangulating these to reach an overall view of the magnitude of the pool, its distribution and the reasons behind it. The methods adopted included:
- Survey of Senior House Officer applicants
- Documentary analysis
- Secondary analysis of GMC and DoH statistics
- Survey of competition for posts.

7K7  First international integrated surgery course at the Charité, Berlin, Germany

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In cooperation with the Karolinska Institutet, Stockholm, Sweden, a 16 week surgery course took place in Berlin. It included surgery, orthopaedics, anaesthesia, radiology and urology. The course was mainly planned and organised by students who had taken part in the Stockholm integration surgery course. The aim of the course was to mediate both practical and theoretical skills. The students were integrated into the daily routine of a general hospital and participated in practical and problem based seminars. Half of the students came from foreign countries. Language of instruction was English. The students’ learning experiences in seminars and hospital departments were evaluated. Feedback from both students and teachers was very positive. This project proved to be a good example of a different way of teaching. Therefore it may have a positive impact on the future structure of the medical curriculum at the Charité.

Session 7L  Special subjects

7L1  Illegible notes - do tomorrow’s doctors need teaching on how to write more clearly?

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Hand-written entries by doctors in patient notes aim to communicate information to other team members. It is important that these entries can be easily read and understood. 205 patient clerking notes were read by medical students (fourth year) to asess the percentage of illegible words and unrecognisable abbreviations, and the absence of date, time, patient details and doctor’s identification. Whereas the recording of patient identification was good (due to the use of patient ‘addressograph’ stickers), the recording of the doctor’s identification (name, position, bleep number), was incomplete in over half the entries. This poster discusses the implications of poorly written patient notes and suggests methods for improvement. These results call for improved teaching on handwriting legibility, the appropriate use of abbreviations and the recording of doctor identification. The use of doctor ‘identograph’ stickers is suggested.

7L2  An active method to prepare students to lead medical interviews: an experience at Xavier Bichat Medical School

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This study describes a series of two active trainings, teaching basic communication skills in the pre-clinical curriculum. In the first intervention, of a one-day duration, students had to reformulate in a popular radio-style, different messages from a scientific paper, in front of 20 students. In the second intervention of a three-hour duration, students working in small groups of 10, had to (from a video extract): observe behaviours of a patient meeting several doctors, analyse the styles of verbal and non-verbal communication and expose to other students the communication gap between the patient and the doctors he/she met. Each presentation is followed by a group discussion and a synthesis done by the teacher. Formative assessment will allow the students to master their own abilities to conduct medical interviews.
**7L3 Teaching medical students patient advocacy skills: An interdisciplinary intervention using Standardized Patients/Families**

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We describe an innovative medical education intervention, designed by interdisciplinary faculty collaborators, to teach and evaluate patient advocacy skills. The intervention is integrated into the required Family Medicine Clerkship within a comprehensive clinical experience in a simulation center. The goals of this educational intervention are to instill in medical students the appropriate knowledge, skills and attitudes to advocate effectively for their patients in a managed care environment. Intervention activities evolve around encounters with standardized patients/families. The specific clinical challenges focus on discharge planning for patients with significant home-health care needs. Related instructional activities include: individual feedback from standardized patients and faculty, an interactive teaching session featuring an advocacy contact workbook, interviews with real patients, and an opportunity to practice advocating to a standardized attending physician on behalf of a patient or family. Outcome measures include participant satisfaction and performance on the final clinical examination.

**7L4 The parameters affecting attitudes to death among students in a Medical College in Taiwan**

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The parameters affecting the attitude to death and dying (anxiety, avoiding, philosophical thinking, and reality facing) were evaluated through a questionnaire to students at the Medical College of National Cheng Kung University. The anxiety response was more frequently noted in the female gender, in more pessimistic students, in those who consider religion to be important in their life, particularly Daoism and Buddhism, and in students not in the Department of Medicine. The avoiding response was noted more in the male, with AB blood type, and in students in the Department of Medicine. Interesting enough, the sophomore and higher-grade medical students seemed more avoiding than freshman. The pessimists, and those who had considered their own death, who had read books on thalantology, seen movies or read novels with death or dying as the main theme, presented a significantly stronger tendency towards philosophical thinking. Finally the reality facing response was more frequently noted in those who had read books on thalantology.

**7L5 Evaluation of practical sessions in Clinical Anatomy: a strategy for educational improvement**

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We have evaluated the students’ response to practical teaching sessions in Clinical Anatomy in our Medical School using action-research. The aim was to identify problems and to introduce changes which might improve the program and the performance of the teaching staff. At the end of each section of the program, each student completed a “target type” questionnaire with eight different components. As each quarter of the whole class had its own teacher, an analysis of variance was used to evaluate the target questions in the various sections of the program, and the performance of the four teachers. This research method gave us feedback on the students’ responses while the program was in progress. The results emphasize the importance of action-research in assessing and improving a developing program in a basic discipline of the medical curriculum.

(Supported by Project PRAXIS XXI PSC/01/CED/157/96)

**7L6 Towards a more effective teaching of Gross Anatomy: introducing new integrated clinical concepts and improving peer presentations/evaluation techniques**

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Relevance and teaching methods of gross anatomy remains one of the most frequently assessed subjects among basic medical sciences. The medical gross anatomy course is taught at the University of Michigan to an average of 170 students. Measures to enhance effectiveness and promote relevance and learning opportunities included the introduction of new integrated clinical teaching concepts. These included clinical tutorials, clinical vignettes and modified practical exam questions. Students’ opinions about these techniques were assessed at the end of the semester. An interesting array of responses was obtained. Also, plans were laid down on providing students with clinical data related to the cadavers they dissect during the next semester. In addition, the peer presentation/evaluation technique that has been applied for a few years witnessed some further improvements. Students’ opinion about the new measures showed a significant improvement in the effectiveness of the technique in promoting the relevance of anatomical knowledge.
Putting the salutogenic orientation into practice: the life cycle course at the Technion

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The salutogenic orientation, which focuses on origins of health, poses that we study the location of each person, at any time, in the ‘health ease/disease’ continuum rather than dichotomize between healthy and sick people. The Life Cycle course at the Technion presents human social development from birth to death. Students, equipped with the salutogenic and biopsychosocial model, learn that patients’ “stories” reveal etiologically significant data that is often missed by clinicians. The aim is to identify a shift in students’ perspectives regarding data about psychosocial aspects of the “patient story”. Before and after the Life Cycle course, students were provided with cases that required knowledge of the psychosocial aspects surrounding patients’ lives in order to treat them. Students were asked to rank contributing factors, including psychosocial and pathological factors, according to their relevance to the intended treatments. Results are pending and will be presented at the conference.

ASAMANS (Ask Students About Medicine And National Socialism)

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Medicine during National Socialism (1933-1945) in Germany and the consequences for medical practice nowadays are the topic of this presentation. Focus of the study is the knowledge, assessment and attitudes of medical students towards medicine and National Socialism. We asked in which way medical education at the Charité/Berlin promotes the discussion of this subject among students. We asked about general basic topics such as euthanasia, medical experiments in concentration camps and the role of German doctors during National Socialism. A sample of 300 students at the start, middle and end of the studies (first, fifth, tenth semester) answered a questionnaire of 35 questions between April and May 2001. The team consisted of one physician and two medical students. The results will be discussed and presented at the conference. Further information will be posted at www.asamans.de

Stress among medical doctors

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While interviewing medical doctors we noticed quite a number of complaints concerning job load and lack of leisure time. The overwhelming amount of complaints surprised us since one of the objectives for medical training is to learn to deal with stress and to become aware of the mutual influences of work and private life. Our research question is therefore: are workers in the medical profession more susceptible to stress than those in other occupations? 235 medical doctors were interviewed by phone and asked to fill out the General Health questionnaire (GQH-12); 150 responded. The results indicated that: i) medical doctors were more stressed than their age group with the same educational level; ii) female doctors were much more stressed than their male colleagues; iii) female doctors are at a greater risk of experiencing stress than male doctors. It therefore seems necessary to pay more attention to this phenomenon during medical training.

Introducing changes in medical education: the “Strategy” of Clinical Anatomy at the Medical School of Porto

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The discipline of Clinical Anatomy, as introduced in the Medical School of Porto in academic year 1995/1996, involved big changes in the way we teach anatomy to medical students, by adopting a clinically oriented approach. The teaching/learning program has been developed over the last 5 years through an action-research project: (1) organisation of a new approach in Sections (regional approach) divided into different Units (physical examination, sectional and imaging anatomy sessions, malformations and anatomical variations, case-studies); (2) development of instructional materials (study guides, handouts, case-studies) and (3) introduction of interactive audiovisuals. This program involved all the staff and students as active researchers in this project. Its full implementation is providing medical students with a solid anatomical competence through the acquisition of an “anatomical reasoning” that aims to provide skilled clinical performance.

(Supported by Project PRAXIS XXI PCH/C/CED/157/96)
Session 8A  Computer mediated learning and assessment

8A1 Preparing clinical small group sessions by using digital video in CBE

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Small-group patient demonstrations form an important part of the Internal Medicine clerkship in Leiden. The purpose of these meetings is to discuss symptoms, signs and management of common health problems and diseases. In practice it is often difficult to get a patient with the required diagnosis at the right time and place. As a result, most cases have to be presented in written text. In order to make better use of the available patient material several patients were recorded on digital video at a time that was more convenient for them. The images were used in a computer based educational program. Students are requested to study this program on the evening before the small-group discussion takes place. During the session the students can discuss the case under supervision of a clinician. The use of this new teaching method has improved the educational value of the already highly appreciated patient demonstrations.

8A2 Inter-physician communication training through computer-based patient simulations

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Communication between physicians is essential in modern medicine; therefore communication training should be integrated in medical curricula. A joint project of the Leiden University Medical Center and the Amsterdam Medical Center, will result in twenty computer-based cases, developed in the Dynamic Patient Simulator (DPS). DPS is a computer program for creating and running patient simulations. In such a simulation several students treat one virtual patient asynchronously, enabling them to practise clear and adequate communication by training the transfer of the patient’s medical record. For this purpose we created a model of the inter-physician communication. With this model we can differentiate between multiple types of communication with different modalities, such as transfer of collected evidence, consultancy and strategies for further evidence collection, assessment and intervention. In our presentation we will explain the communication model and demonstrate its implementation in DPS.

8A3 Computer Assisted Learning: using and doing research in primary care

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Development of CAL for research in primary care resulted from practitioners’ expressed needs, and the policy agenda. National collaboration achieved funding for a demonstration model. The project will:

- design an innovative educational intervention to support staff in health settings, nationally and internationally;
- develop a comprehensive course on research - Understanding Research and, Learning to do Research - utilising, initially, CD-ROM;
- develop applications facilitating web access;
- evaluate the concept through a pilot CD-ROM.

The CD-ROM has been developed as a demonstration model through a collaboration of researchers and Medical technologists. Evaluation of its educational value and technological robustness will utilise questionnaire and interview of a defined sample of General Practitioners and healthcare professionals. Evidence of usefulness, effectiveness and accessibility will inform development. Successful outcomes will facilitate progress from demonstration model to platform support tools, customised to the needs of specialties.

8A4 Extracting core competencies “bottom up” from case histories by an online consensus seeking process in family medicine

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This project responds to the need for a clear and detailed definition of the required competencies for future family physicians in Switzerland. The aim of the project is to demonstrate that a web-based platform is a feasible and comfortable means to define relevant core competencies based on case histories. The practitioners of an expert panel had to write case histories based on their daily work. The panel outlined core problems and core criteria to solve core problems. Thus, a core competence is defined as a bundle of the criteria necessary to solve a core problem. In a first step 82 core competencies consisting of 348 criteria could be identified. Online work was well accepted by the panel. Working together online seems to be a feasible means to seek relevant consensus in the continuing process of developing and updating core competencies in family medicine.
**Problem-based learning for trainees in Anaesthesiology**

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In order to increase the efficiency of learning during postgraduate training we educate our residents in a programme which is problem-based. Weekly tutorials involve 9 trainees per group. Since active learning is known to improve knowledge and recall, the specific learning objectives of a fictive patient case are worked out by the group and discussed with the support of a tutor. Self-studies are an integral part of the programme which also involves questions and instructions distributed by the tutor via internet. According to the concept of iterative integration the learning issues of the cases gradually get more difficult and are...
longitudinally related to what has already been learned. Residents find this form of learning very encouraging and stimulating. Besides improvement of knowledge, problem-based learning also improves the quality of teamwork and communicative skills.

**8B2** Communicating with students in a problem-based curriculum: experiences with WebCT

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A problem-based curriculum was introduced at the Nelson R. Mandela School of Medicine (University of Natal, Durban, South Africa) in January 2001. Several factors required that the year co-ordinator be able to communicate with students on a daily basis. After evaluating several packages, WebCT (Web Course Tools) was chosen as the front-end product for the delivery of Internet material because of e-mail and bulletin board facilities, its ability to handle high quality graphics and streaming video, as well as the integration of student records and student tracking. Accessing WebCT from sites outside the campus was considered important, in the light of the community work senior students would be undertaking. Results from the preliminary evaluation of WebCT by first year students (after Module 1) are encouraging. This presentation will discuss the development of module course material in WebCT, as well as how students of differing educational background have embraced the technology.

**8B3** Faculty members and senior students as facilitators in PBL-groups - similarities and differences

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Both faculty members and senior students may serve as facilitators (tutors) in PBL-groups at the Faculty of Medicine, Norwegian University of Science and Technology. Each group has two alternating facilitators; one only may be a senior student. A scale has been developed to assess central dimensions of the facilitators’ group behaviour. Once each term, the students complete the scale. Along with general feedback, the results are given to the facilitators. The aim is to improve facilitators’ contributions to group interaction and learning processes in PBL-groups. Findings about similarities and differences between faculty members and senior students as facilitators will be presented and discussed. Also, some reflections on senior students as facilitators in PBL-groups will be discussed.

**8B4** Tutors’ perspectives of problem-based learning

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While PBL has been widely written about, there is limited research concerning PBL tutors’ perspectives. This study set out to explore teachers’ viewpoints in a context where PBL was introduced part way through the undergraduate curriculum, and as one of several teaching methods. The aim was to investigate the question: how do teachers perceive and experience their role as PBL tutors? Research was conducted during 1999/2000 at King’s campus of Guy’s, King’s and St. Thomas’ School of Medicine. Qualitative methods of data collection and analysis were used, with interviews being conducted with tutors from the newly established PBL programme. From the findings it emerged that tutors faced challenges as they grappled with the complexities of their role. These challenges were located within personal understandings and external perceptions of PBL, as well as tutors’ own experiences. Discussion of the findings will be the focus of this presentation.

**8B5** The E.D.I.T. project in Linköping: using web-based scenarios for PBL

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In the spring term of 2001, the Faculty of Health Sciences, inspired by the Graduate Medical Programme at the University of Sydney, started to implement its E.D.I.T. (Educational Development using Information and Communication Technology)-project. The idea behind the project is to increase the reality aspects of scenarios (cases or problems) used to facilitate learning in a problem-based curriculum. Apart from text documents, web-based scenarios may contain video clips, digital images of high quality (plain photographs, x-ray, microscopy, etc.), sound, graphics and other media formats. In the fifth semester of the medical curriculum, EDIT was implemented as a pilot project. Twenty-five patient scenarios were designed and put on an intranet-server using the media formats mentioned above. PBL groups worked in rooms equipped with a computer connected to the intranet, a projector and an interactive whiteboard. Students’ and tutors’ experiences with the new scenario format were evaluated using qualitative and quantitative approaches.

Group sessions were observed and analysed concerning potential effects on the PBL-process. The project and results of the evaluation will be presented during the conference.

**8B6** How to promote success in a PBL tutorial session

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The present study examines the effects of students’ attitudes towards PBL on study behaviour and learning outcomes. The quality and functioning of the tutorials in relation to learning outcomes were looked at. The participants were 17 second-year medical students. Six PBL-tutorial sessions were videotaped. Of the total of

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540 minutes of videotape, “brainstorming”, “setting learning goals”, and “evaluation” were analysed. The participants filled in Likert-type questionnaires. After the last session, the students also answered open-ended questions. The relations among students’ attitudes, time spent on individual study, student behaviour in tutorials, and their academic achievement were analysed. It was found that students with a positive attitude used more time for individual study and concentrated more on medical knowledge than on irrelevant comments during tutorials. It appeared that the positive attitude, study time spent, and an active role in tutorial sessions were all related to good exam grades.

8B7 Evaluation of the student staff in the experience of PBL in the Federal University of Roraima - Brasil

Session 8C Curriculum planning

8C1 Priorities in the content of the curriculum from the standpoint of the academic staff

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A questionnaire of academic staff has been conducted to ascertain opinion about the most important aims and essential elements of the curriculum highlighted in the National Concept “Tomorrow’s Doctors in Latvia”. Teachers were asked to arrange the aims of a curriculum in order of relevance. The sequence was as follows: knowledge as a basis for medical practice, health promotion and prevention, independent learning and life long learning. This questionnaire highlights also that the most essential elements of the curriculum are the compulsory amount of theoretical knowledge defined for each study term, mastering of appropriate practical skills and introduction of optional study modules. Analysis of these results could be used for further curriculum planning at the Faculty of General Medicine.

8C2 Reforming the core curriculum of the Reformstudiengang in Berlin - a Delphi study

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After experiences with three semesters in the new reformed curriculum we realised the necessity to reconstruct our core content. To do this, about 1400 topics, derived by different health and disease surveys, were reviewed. Out of these our interdisciplinary core group identified 376 ‘health problems’ (123 patients’ symptoms and signs, 205 diseases and diagnoses, and 48 general aspects of medicine) which appeared crucial for modern medical education. Topics were selected according to their frequency, urgency and exemplarity. This corpus represents the basis for a faculty wide Delphi survey, started in April 2001. In the first round, 463 faculty members from 63 different departments were contacted and asked to review our proposal from the point of view of their area of practice. This procedure was chosen to promote faculties’ involvement and feeling of ownership of the ‘Reformstudiengang Medizin’.

8C3 Early clinical clerkship - does it make a difference?

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The effects of an early (2nd year) 8 week long clinical clerkship were investigated. Students with clinical exposure were compared to students without clinical experience on: 1) attitudes towards medical education, and 2) performance on a short essay examination in physiology. More students with clinical exposure felt they had insight into the medical profession. When compared to students with no clinical experience, the early clinical exposure induced a more favourable attitude towards the significance of early patient contact. No differences were found in the two groups’ study motivation, feelings for having chosen the right study, or sense of belonging to the profession. The students with clinical exposure performed slightly better on the physiology examination, but other differences in study population could account for this. In conclusion, despite very positive evaluations of early clinical clerkships it is difficult to document that the clerkship changes students’ attitudes or performance.
The European credit transfer system is based on the total study workload of an average student. The “lecture per week” is no longer the measure for study workload; credits also allow the reflection of student time devoted to other learning activities such as e-learning, group work, directed self-study and time spent in skills labs. Whereas transferring an already existing curriculum into credits may be very difficult, ECTS can be a helpful tool when planning a new curriculum. The total amount of study workload will be defined for each course, including contact hours, pre- and post- course assignment, preparation for examinations and time necessary for various learning activities other than lectures. By attributing credits for this a balance of study workload over the whole course of study can be found. A credit system may also create an environment adequate for introducing new self-directed learning methods.

The first Elective provides the first step on the lifelong journey of professional development. This teaching-learning relationship offers additional dimensions for student and Tutor. Appropriate support for the Tutor’s professional contribution, including educational credits, enhances the spirit of the Electives programme and encourages experience in areas under-represented or not yet represented in the core curriculum. Collaboration with CME and rural medical education includes conceptualisation of faculty development applicable beyond the Electives programme, as changes in core curriculum increasingly involve off-campus Tutors.

The marks were scored from 5 (failed) to 12 (excellent) and grouped in four categories: Failed, acceptable, good, and excellent. No student failed. Mean score given by one examiner (7.9; SD: 1.6) was significantly lower than that given by the other three (9.4; SD: 1.2). Correlation coefficients between examiners' scores varied from 0.61 to 0.72 (p < 0.001). Agreement in classifying a student’s knowledge as acceptable, good or excellent varied from no (kappa: 0.04; 95% CI: - 4.87 -
0.05 - 0.13) to moderate (kappa: 0.51; 95% CI: 0.32 - 0.70) between various pairs of examiners. Agreement between two endocrinologists assessing a case in endocrinology was only fair (kappa: 0.21; 95% CI: 0.02-0.40). The results suggest unreliable (inter-rater) grading in written clinical case examinations.

8D2 Identifying threshold competence in an undergraduate qualifying clinical examination
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Undergraduate qualifying examinations seek to identify those who are competent to proceed to house officer training. This requires definition of the standard of competence required of the new graduate, and its conversion to a threshold within an examination. We have attempted to define the concept of the ‘minimally competent’ practitioner – one who is just able to proceed. The final professional clinical examination at L WMS is graded in terms of five ‘categories of competence’, with precise grade descriptors. We asked consultants who train house officers to define the minimally competent new graduate in terms of the proportions of patients where they would not perform satisfactorily in each category of competence. Proportions ranged from 0% to 50%. There was a clear tendency for history and examination skills to be considered more important. The findings have implications for setting examination thresholds.

8D3 The validity of performance standards on a certification examination for occupational therapists
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This study investigated the validity of passing scores set by the Nedelsky and Angoff methods for an occupational therapy national certification exam. Eight judges rendered Nedelsky and Angoff judgments for 302 multiple choice items. Judges used a five point scale to rate the competence of examinees selecting each alternative as an answer. Judges’ decisions were correlated with scores of examinees near the passing scores. Item difficulties were computed for examinees with scores just above (higher) and just below (lower) the passing scores for each method. The number of alternatives rated as “significant concerns about competence” and selected as possible answers was compared for higher and lower scoring examinees. The correlation between judges’ decisions and examinee scores around the passing score was 0.34 and 0.23 for the Angoff and Nedelsky methods respectively. Comparisons of proportion correct for higher and lower candidates showed more consistency for the Angoff method.

8D4 Reliability of a sequential clinical examination
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Clinical competence of students at Leicester Warwick Medical School is assessed by direct observation of consultations with a series of patients. Summative assessments are sequential. All students are observed with 2 or 4 patients, (depending on stage in the course), and those whose competence remains in doubt are observed with a further 3 or 4. In each consultation, a different pair of examiners observes students continuously. Examiners grade independently performance in five categories of competence defined by precise descriptors. There are precise grade descriptors. All examiners are trained. In a full, final examination, therefore, each student has 16 grades for each of five categories of competence. Analysis of data from three full cycles of assessment demonstrates that: (i) there is a high degree of inter-examiner reliability; (ii) eight cases are sufficient to mitigate case specificity; (iii) students vary in the relationship between performance in different categories of competence.

8D5 Considerations of Legal, Ethical, Organizational Aspect of Clinical Competence in a National Licencing Examination, Evaluation at the Medical Council of Canada
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Organizations responsible for development and administration of national licensing examinations are becoming major partners in responding to evolution of emerging new social needs, such as Considerations of Legal, Ethical and Organizational aspects of medical practice(CLEO).The Medical Council of Canada (MCC) has been responsible for developing an examination process which leads to licensure to practise in the Canadian provinces. The study presents the decision-making process which has resulted in the development of the CLEO content of the Medical Council of Canada Qualifying Examination. The validation process of this new content is demonstrated as well as specific objectives in each of the three CLEO components. Results are presented from the first mandatory implementation, in May 2000, for about 2000 candidates. Comparison with the MCQ scientific component is presented and discussed. Integration of CLEO disciplines into the second component (OSCE) of the MCC Qualifying examinations is also demonstrated.

8D6 Combining different components of an assessment procedure
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In Flanders the Departments of General Practice in different universities worked together to organise a common final assessment procedure. This takes place at the end of the vocational training period in General Practice and takes the form of a certification exam. This assessment procedure is built out of four different components: a well-designed written knowledge test, a structured oral exam, a large scale OSCE type exam and a structured report from the trainers. A pass-fail standard is defined for each separate module using appropriate procedures. A final pass-fail decision is based on a combination of the scores obtained from the different modules. This presentation discusses the different approaches that can be used to combine the different component scores. From a pure reliability perspective the reliability analysis of composite scores can be computed using a multivariate reliability analysis. The discussion is illustrated with data collected from the final assessment procedure in 1996-2000. The impact of using different approaches and computation methods is simulated and discussed. The choice for a specific combination method should be inspired by the psychometric characteristics of the assessment tools but the final decision is made on an empirical basis.

Session 8E  Postgraduate education/career choice

8E1  Teaching with patients: moving beyond ‘learning by osmosis’
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Teaching with patients in everyday workplace contexts (such as ward rounds, clinics, theatre etc.) provides a unique opportunity for postgraduate doctors to gain insight into the complex thinking that lies at the heart of professional practice in medical education. It is easy to assume, however, that these inexperienced doctors will ‘pick up’ a range of important generic skills (e.g. communicating with patients, working in multi-professional teams, understanding patient anxiety etc.) merely by accompanying a more experienced clinician in one of the above contexts. Could it be that some of the excellent role models of good practice being provided by experienced colleagues are going largely unnoticed by postgraduate doctors whose personal agendas may be narrowly focused on exam preparation? Some ideas for raising the status of this kind of ‘teaching by example’ will be outlined and opened up for further discussion.

8E2  The effect of an interactive postgraduate education programme on parenteral treatment in Macedonia
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Macedonia has no formal system of postgraduate or continuing education for doctors working in primary care. These doctors are poorly equipped and have little access to current medical information. Treatment is therefore often inappropriate; overuse of antibiotics and injected drugs, and high referral rates are particular problems. To improve matters the Chamber of Physicians encouraged the Ministry of Health to support a programme of continuing education using World Bank funds and foreign technical assistance. Evidence-based guidelines were customised and translated, and an 18 day course based around these was developed. This was piloted in the Prilep region in 1999. It was well received by participants, and is now being extended throughout the country. We will present details of the course and data demonstrating a fall in the cost of injectable drugs in the Prilep region by 26% in the four months following the course, compared with the previous year.

8E3  Promoting innovation in postgraduate education through the accreditation process
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U.S. residency programs and their institutions are subject to many destabilizing influences, eg, economic pressures for clinical productivity, shortened hospitalizations, decentralization of patient care, all of which may negatively impact teaching. The ACGME, the U.S. accrediting agency for postgraduate medical education, has initiated a project to help programs meet these challenges. An invitation was issued to programs and institutions to submit proposals for innovative approaches to teaching and evaluation. The proposals, which must also ensure the training quality is not compromised, should result in initiatives that may be adopted by other institutions. Principal benefits of the RFP (request for proposals) approach are that it will stimulate creativity and flexibility in teaching institutions, recognize and reward viable innovation, and promote the sharing of information among programs. Over 100 proposals were received. This presentation will explain future plans for the project and describe some of the most promising proposals.

8E4  A new development in postgraduate surgical education: the Intermediate Breast Course - a distance learning course
H M Sweetland*, E Hoadley-Maidment and M Galea  
Raven Dept of Education, Royal College of Surgeons of England (RCS), University of Wales College of Medicine, University Department of Surgery, Heath Park, Cardiff CF4 4XN, UK

The effect of an interactive postgraduate education programme on parenteral treatment in Macedonia
M Ivanovski, P D Toon*, K Zafirovska, F Teoija and B Gomes  
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Macedonia has no formal system of postgraduate or continuing education for doctors working in primary care. These doctors are poorly equipped and have little access to current medical information. Treatment is therefore often inappropriate; overuse of antibiotics and injected drugs, and high referral rates are particular problems. To improve matters the Chamber of Physicians encouraged the Ministry of Health to support a programme of continuing education using World Bank funds and foreign technical assistance. Evidence-based guidelines were customised and translated, and an 18 day course based around these was developed. This was piloted in the Prilep region in 1999. It was well received by participants, and is now being extended throughout the country. We will present details of the course and data demonstrating a fall in the cost of injectable drugs in the Prilep region by 26% in the four months following the course, compared with the previous year.

Session 8E  Postgraduate education/career choice

8E1  Teaching with patients: moving beyond ‘learning by osmosis’
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Teaching with patients in everyday workplace contexts (such as ward rounds, clinics, theatre etc.) provides a unique opportunity for postgraduate doctors to gain insight into the complex thinking that lies at the heart of professional practice in medical education. It is easy to assume, however, that these inexperienced doctors will ‘pick up’ a range of important generic skills (e.g. communicating with patients, working in multi-professional teams, understanding patient anxiety etc.) merely by accompanying a more experienced clinician in one of the above contexts. Could it be that some of the excellent role models of good practice being provided by experienced colleagues are going largely unnoticed by postgraduate doctors whose personal agendas may be narrowly focused on exam preparation? Some ideas for raising the status of this kind of ‘teaching by example’ will be outlined and opened up for further discussion.

8E2  The effect of an interactive postgraduate education programme on parenteral treatment in Macedonia
M Ivanovski, P D Toon*, K Zafirovska, F Teoija and B Gomes  
University College London, 157 Roding Road, London E5 0DR, UK

Macedonia has no formal system of postgraduate or continuing education for doctors working in primary care. These doctors are poorly equipped and have little access to current medical information. Treatment is therefore often inappropriate; overuse of antibiotics and injected drugs, and high referral rates are particular problems. To improve matters the Chamber of Physicians encouraged the Ministry of Health to support a programme of continuing education using World Bank funds and foreign technical assistance. Evidence-based guidelines were customised and translated, and an 18 day course based around these was developed. This was piloted in the Prilep region in 1999. It was well received by participants, and is now being extended throughout the country. We will present details of the course and data demonstrating a fall in the cost of injectable drugs in the Prilep region by 26% in the four months following the course, compared with the previous year.

8E3  Promoting innovation in postgraduate education through the accreditation process
Judith Armbruster  
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U.S. residency programs and their institutions are subject to many destabilizing influences, eg, economic pressures for clinical productivity, shortened hospitalizations, decentralization of patient care, all of which may negatively impact teaching. The ACGME, the U.S. accrediting agency for postgraduate medical education, has initiated a project to help programs meet these challenges. An invitation was issued to programs and institutions to submit proposals for innovative approaches to teaching and evaluation. The proposals, which must also ensure the training quality is not compromised, should result in initiatives that may be adopted by other institutions. Principal benefits of the RFP (request for proposals) approach are that it will stimulate creativity and flexibility in teaching institutions, recognize and reward viable innovation, and promote the sharing of information among programs. Over 100 proposals were received. This presentation will explain future plans for the project and describe some of the most promising proposals.

8E4  A new development in postgraduate surgical education: the Intermediate Breast Course - a distance learning course
H M Sweetland*, E Hoadley-Maidment and M Galea  
Raven Dept of Education, Royal College of Surgeons of England (RCS), University of Wales College of Medicine, University Department of Surgery, Heath Park, Cardiff CF4 4XN, UK
In the UK there have recently been significant changes in Postgraduate Surgical training. The RCS has been instrumental in developing new courses for surgical trainees. In 1999 a Committee of breast surgeons set out to plan and develop a Distance Learning course for breast trainees. The aims of the course were to present breast disease as an interesting specialty area, provide basic knowledge but stimulate learning ’on the job’, and ultimately to encourage more trainees into breast surgery. The curriculum was planned together with a distance learning study guide and 3 study days to teach practical skills and to discuss what has been learnt from the study guide and the clinical situation. The course has run from October 2000 to April 2001, and it is currently being evaluated from participant feedback. The rationale, curriculum and evaluation of the course will be presented. It is proposed that this course will be a model for further courses to be organised by the RCS.

8E5  

Attitude change in neonatologists-in-training by participation in the neuropediatric follow-up of former premature infants

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Attitudes among neonatologists towards resuscitation of premature infants at the limit of viability (range 22-26 weeks gestation) differ. Many families of immature infants are burdened by varying degrees of disability of their child. Participation in neuropediatric follow-up of premature infants is part of neonatology training, but not every neonatologist-in-training is exposed to such a program. It is unknown whether changes in attitude occur in neonatologists exposed to outcomes of premature infants; the hypothesis is that active participation in a follow-up program is likely to influence attitudes indicated by an opinion change regarding resuscitation of infants at the limits of viability. A research design is proposed containing a pre- and post-training questionnaire administered to pediatric residents in neonatology training before and after participation in a neuropediatric follow-up program of prematures, compared to questionnaire results in residents who do not participate in such a follow-up.

8E6  

Factors that influence the career choice of medical specialization

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To identify factors that influence the career choice for medical specialization, a review of the literature was carried out, based on a qualitative and quantitative study design. Altogether 24 studies were analyzed. The results showed that most studies were of good quality. A quantitative assessment showed that many factors, like ‘hours and working conditions’, ‘domestic circumstances’ and ‘enthusiasm for specialty’ played a role in the medical career choice. Nowadays more women than men study medicine. The majority of doctors with a first choice of general practice at the time of qualification achieved this. Women, who wanted a clinical specialization, could not accomplish or continue this career sufficiently. Social Medicine was not very popular for qualified doctors, but some years after qualification a substantial amount of doctors, especially women, worked in this field. The method of this review and the results will be presented.

8E7  

Personality differences in doctors affect the factors associated with their medical specialty choice

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Attention has been drawn in the literature to the change in focus over the years on factors associated with medical specialty choice, ranging from personality, attitudes and values, socio-economic factors, the effect of medical education, to the influence of debt, expected earning and anticipated working conditions. 313 out of 464 doctors surveyed (68% response rate) completed a questionnaire, the Myers-Briggs Type Indicator (MBTI), which measures normal personality differences. They also gave details of factors which most influenced them in their choice of medical specialty from 30 options, e.g. experience on the course, opportunities for research, need for security, etc. Analysis of this data resulted in significant differences being found between the factors which were most important to the different personality types. These results will be presented which will be of interest to those involved in recruitment to the different specialties.

Session 8F  

Teaching and learning

8F1  

Impact of peer tutoring on the patient-centered interviewing skills of first-year medical students

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In medical education, peer tutoring is most frequently used for knowledge-based subjects. There are no published accounts of peer tutoring in relation to the acquisition of patient-centred interviewing skills. At Imperial College, 23 third-year medical students participated in a project in which they facilitated sessions for their first-year colleagues in the skills of...
Peer Assisted Learning - a teaching strategy for the new millennium?

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Peer Assisted Learning (PAL) is a key learning tool and increasingly being used in medical education. For 2 years, a voluntary PAL system has been run in Dundee Medical School using 4th and 5th year students to tutor 2nd and 3rd years. Tutee evaluation of each session was performed using a brief questionnaire of tutee satisfaction and motivation for attendance. 626 responses were returned and analysed showing a highly favourable response to PAL, with 95% rating sessions as useful / very useful and 93% as a good / very good learning aid. Particular focus on why students attended PAL sessions showed a diverse range of motivation, with an emphasis on enhancing exam performance. The effect of attending PAL reflected in exam performance was also examined. These data have been used to devise a tutee profile which will be used to make the scheme more accessible and beneficial to all students.

An insight into how students learn about a cardiovascular problem using study guides

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A study guide is a useful tool to help students manage their learning more effectively, but to what extent does the format of these guides play a part in the learning process? One hundred and fifty-one second year medical students were given three different formats of guides covering the topic of hypertension. The guides were timetable-based; problem-based; outcome-based. Although the content for all three types was the same, the weighting on the different components of the guides differed. Students were asked to select the guide of their choice to learn about the topic. From our study, we concluded that:

1 In general students find study guides helpful in managing their learning;
2 The guide which adopted a timetable approach to learning was the preferred choice;
3 The guide which adopted an outcome-based approach was the least preferred choice;
4 Of all the components of guides, the incorporation of a clinical problem was deemed the most helpful.

Study guides in an outcome-based medical curriculum at the International Medical University (IMU), Malaysia

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An outcome-based undergraduate curriculum with eight major outcomes was developed for our clinical school. The core curriculum consists of 113 study-guides among others. This paper describes how the study guides were developed with the aim of facilitating task-based and independent learning. These guides were prepared and reviewed utilizing a “study guide matrix” by a multidisciplinary faculty; and these form a key learning resource throughout the clinical years. A study guide was prepared for each key clinical problem. They identified learning issues in the 8 outcomes including basic medical sciences in each of the problems and specific themes like ethics, which run through the curriculum. The IMU adopts a spiral curriculum and revisiting basic sciences in solving clinical problems is one of our outcomes. The guides help the students manage their own learning and obtain the maximum from each clinical attachment in accordance with the major outcomes.

How authors of an extensive distance learning programme for surgical trainees differed in their use of the specified template

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The development of new technologies has resulted in an increased use of and interest in distance learning. The production of effective distance learning materials is time consuming and requires the skills of content, educational, and technical experts. A wide range of content experts may contribute to a programme, but often they are based at a distance from each other, and frequently with no previous educational expertise in producing distance learning materials. This was the situation encountered by the Centre for Medical Education Dundee when commissioned by The Royal College of Surgeons of Edinburgh to produce 42 distance learning modules to prepare Basic Surgical Trainees for the AFRC examination. To tackle this initiative, a template was developed which defined the educational strategies to be adopted in the programme, and to help authors to structure their content. This paper examines the use made of the template by the authors, and in particular, the extent to which they utilised the various educational strategies which were built in to the programme’s design.
**Session 8F6**  
**Context-dependent memory in a meaningful environment: in the classroom and at the bedside**

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Godden and Baddeley (1975) showed that divers who learned words under water or on land, recolled these words better when the recall condition matched the original learning environment, a finding often cited in the medical education literature. Because the ecological validity of this experiment for medical education can be questioned, we replicated the Godden and Baddeley study, but now contrasting a clinical with an educational environment. Besides that, we added medically meaningful subject matter (clinical case description and biomedical words) to the non-medical type of common words used in the G&B study. Preliminary results indicate no significant differences. However, there does appear to be a slight tendency towards better recall of the case description if the encoding took place in the clinical environment.


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**Session 8F7**  
**Continuous Interactive Class (C.I.C)**

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In 1999 we initiated a pedagogical project in teaching called Continuous Interactive Class. Consisting of a technical card comprising objectives and contents of a theme to learn, 6 students with a tutor, after consulting the bibliography, discuss a theme that is outlined on the web. An electronic mailbox is opened so that any student may consult his/her tutor. Finally, an interactive “seminary” takes place to discuss the mail received and the problems that have arisen, elaborating a new version. Educational contents are better explained and brought up to date and the active participation of the group increases student motivation. There was low participation by the students through e-mail and lack of interest in the change of pedagogical methodology. The reasons for this were considered to be too many exams and classes, fear of change and possibly low availability of personal computers.

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**Session 8G**  
**Assessment in postgraduate and continuing education**

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**8G1**  
**A computerized adaptive test as an element of the final assessment of general practitioners in Flanders: Possibilities, difficulties, dilemmas...**

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The many advantages of CAT make it very attractive for use in the final assessment procedure for general practitioners in Flanders. The actual written test is based on a 3 dimensional blueprint. The item response theory, which is essential for the development of a CAT, is based upon the assumption that the test scores reflect the amount of one latent trait possessed by the individual. Is the general practitioner’s competency unidimensional and how can our blueprint be adapted to take account of this assumption? Subdividing the test in different modules and working with testlets are some of the solutions we will discuss in order to solve the problem of case-specificity as described by Elstein et al. (1978), Norman and Newble (1985) and van der Vleuten (1988). Several mathematical constructs (1, 2 and 3 parameter models) can be used to make a CAT. Each of these has implications on the size of the item database software choice.

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**8G2**  
**Insight 360: a tool for looking at doctors’ performance**

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Researching effectiveness of GP registrar education, we needed to develop proxy measures of performance in trained doctors in order to look at the outcome of training. We adapted a tool which is used in developmental work with general practices. Insight 360 contrasts the perceptions of a doctor’s patients and colleagues with self perception in relevant areas of performance. We encourage groups of trained practitioners to take part in this exercise. Each respondent is asked to rate both the importance of a particular item of performance, and how well the doctor performs on this item. Individual reports are prepared for each doctor taking part, and we also prepare group reports, if requested. This feedback material can be very useful towards the doctor’s personal development. The database provides us with valuable indicators of a doctor’s perceived performance, enabling us to look for influences of education and training.
**8G3**  Impact on non-principals in General Practice of the summative assessment audit project

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General practice registrars (trainees) must pass an audit project as part of summative assessment (SA). Its impact after training on audit knowledge, ability to recognise audit criteria and standards, and attitudes towards audit is unknown. 200 GP non-principals in the west of Scotland were surveyed (79% response rate) to assess these factors. 67 respondents (42%) underwent SA and 91 (58%) had not. Respondents rated their knowledge of different areas of audit method. Significantly higher mean scores were recorded for the SA group in every area (P<0.001). 44 respondents (28%) recognised all acceptable criterion and standard statements. Significantly more SA respondents recognised these statements (P<0.001). Minimal statistical difference was noted between each group’s attitudes to audit. Significantly more pre SA respondents required training in audit method (P<0.001). The SA audit project can influence GP non-principals’ perceived and actual levels of audit knowledge and sustain it after training is complete.

**8G4**  The difference between the ability to apply consultation guidelines and the routine of application: a relevant distinction?

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General Practitioners performed less well than expected in consultation skills assessments. The aim of the study was to provide an explanation for under-performance by investigating differences between the ability to apply consultation guidelines anyway and the routine of applying these in each consultation. An analysis of videotaped consultations was carried out by the validated MAAS-GLOBAL in two settings: 1) multiple station examination using standardised patients (86 GP trainers each with 6 consultations) and 2) video observation in daily practice (65 GP trainers, 10 consultations). Item scores on the MAAS-GLOBAL range from 0 to 6. Criterion ability: item score > 4 in at least two consultations. Criterion routine: mean item score > 4. For communication items the ability criterion was reached by 80% of GPs, while mean scores in both settings did not reach the routine criterion. It is concluded that GPs do not apply their consultation skills in each consultation, despite their abilities. Further research is needed on obstacles to using consultation abilities.

**8G5**  What do SHO Educational Supervisors really think of appraisal?

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A structured system of educational appraisal is recommended as an essential requirement in the postgraduate training of junior doctors (GMC 1998). The expectation has been that consultant Educational Supervisors would fulfils this requirement for their trainees. However, there is little information as to how these consultants view this aspect of their role or to what extent they value or are committed to the process. This study engaged 55 SHO Educational Supervisors from most hospital specialties in reflection on their role in educational appraisal by questionnaire and semi-structured interview. The majority supported appraisal and described many benefits to themselves, their trainees and the clinical team.

They also identified structural and educational obstacles to the consistent and equitable delivery of effective appraisal for their SHOs. These data will inform a deanery strategy to facilitate Educational Supervisors in this aspect of their role.

**8G6**  Visual-spatial ability and the objective assessment of technical skills

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The purpose of this study was to determine the relation between visual-spatial ability and performance on a surgical procedure. Thirty-seven surgical residents completed Mental Rotation Tests (MRT) (three-dimensional visual-spatial tests), and were objectively assessed on their ability to perform multiple Z-plasty procedures.

Significant correlations were seen between MRT and performance on a two-flap (r=0.40, p<0.05) and a four-flap Z-plasty (r=0.47, p<0.01). Subjects with lower MRT scores had lower initial two-flap Z-plasty scores (see figure).

Following practice, improvement was seen in their scores. However, the lower MRT group was again significantly outperformed on the more spatially
complex four-flap Z-plasty, suggesting a lesser ability to transfer learned principles to a novel and more complex task. The ability to mentally manipulate three-dimensional objects is related to initial performance on a spatially complex surgical procedure. Subjects with lesser visual-spatial abilities achieve satisfactory levels of performance following practice and feedback.

**8G7 Validity of MIST-VR in the assessment of laparoscopic skill**

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The aim of the study was to determine whether MIST-VR laparoscopic simulation correlates with performance in theatre. Error, economy and time taken for 36 surgical trainees, 37 surgically naïve students and 16 surgical consultants to complete 2 tasks on MIST-VR were recorded. 26 trainees and 36 students underwent repeat assessment after 6 months. A validated in-theatre technical assessment form was completed by each trainee’s consultant. Trainee MIST-VR performance did not correlate significantly with consultant assessment and was not significantly different from that of consultants or students. A significant but weak correlation was found between MIST VR time score and duration of surgical experience (p=0.036, rho=-0.242 Spearman). Trainees showed significant improvement in time and economy after 6 months (median (IQR) time 0 to time 6 months: time (seconds): 217(176-291) to 184(157-215) p=0.003; economy score: 26(19-32) to 21(16-25) p=0.002 Wilcoxon); however, similar improvement was also seen in the student group. Further work into this area is needed.

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**Session 8H  Curriculum change**

**8H1 Innovation and reform of medical education: evaluating the UNI program in Latin America**

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The UNI program is a Kellogg Foundation initiative in the field of human health resources development in Latin America, based on the idea that partnership between university, local health services and community should be the cornerstone for innovation of professional training and health practices. The study evaluates the achievement of UNI schools students of a set of expected and consistent professional attitudes according to principles guiding the UNI Program. The study includes comparison with non-UNI schools of the eight countries involved so that inference of program results can be performed. The design includes a categorization of schools according to variables referenced to the concepts of innovation and reform defined in a theoretical model in which the medical school is considered as a space of transformation and reproduction of social practices. The methodological pathway is discussed, particularly the study design and instrument construction, its limits and possibilities.

**8H2 Promoting responsive curriculum change within the 21st century**

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The process of curriculum change is complex, political and dynamic. The curriculum reform process includes: 1) identification of the rationale for curricular change; 2) managing the change process; 3) development of the new curriculum model/plan; 4) curricular implementation. The curriculum renewal process at the Wake Forest University School of Medicine will be used to illustrate the curriculum planning process noted above. Wake Forest University embarked on a 3 year curriculum planning process in 1995. During the first year of planning, ten principles were identified to serve as the foundation for the new curriculum. A curriculum model was developed during the second- and third-years which showed the 46 month educational program as a continuum. Implementation of the new Prescription for Excellence: A Physician’s Pathway to Lifelong Learning curriculum is occurring over a 4 year period. A program evaluation plan has been developed linked specifically to curricular goals and objectives.

**8H3 Improving the University and NHS Teaching Hospital Trust Partnership to identify SIFT spending**

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The perceived underspend of SIFT on Undergraduate teaching is widely acknowledged throughout UK medical schools and NHS teaching hospitals. In order to monitor the provision of services under the SIFT contracts, the University of Birmingham Medical School has developed a vehicle in the form of a Framework Agreement to strengthen links with the NHS and ensure the highest quality clinical care, teaching and research. In collaboration, a system has been developed to monitor compliance with the Agreement in the form of Undergraduate Clinical Education Monitoring Visits. This paper sets out how such a mechanism has been developed, and as a result, offers guidelines for the design and implementation of a framework for quality monitoring of undergraduate
teaching activities within NHS hospital trusts. A thorough insight will be given into how this practical strategy works in real terms to effectively meet high standards in university medical education.

8H4 Assessment of medical student attitudes toward relevant aspects of medical practice

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At the Faculty of Medicine of Ribeirão Preto (University of São Paulo, Brazil), a 5-point Likert scale containing 52 items was developed for measurement of medical student attitudes toward 6 relevant aspects of medical practice. Preliminary tests determined the scale’s apparent and content validity and showed high internal consistency (Cronbach’s alpha = 0.86). Attitudes of graduating classes of medical students were measured for 4 consecutive years. Pooled results from 317 students showed predominantly positive attitudes toward: 1) psychological issues in organic diseases; 2) primary care; 3) aspects of medical work in the community; and either conflicting or undefined attitudes were detected toward the following aspects: 4) mental diseases; 5) physician roles in medical research and 6) death-related situations. Data obtained are likely to represent deeper medical school values and have to be taken into consideration for further improvements in medical student education.

8H5 Effect of a curriculum reform of graduating student performance

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Aiming at evaluating the efficacy of a new curriculum implemented at the Faculty of Medicine of Ribeirão Preto, a yearly objective assessment of graduating (6th year) students was performed. Shortly before graduation, all students underwent sets of multiple-choice questions (MCQs) and groups of 18-20 students/year were randomly assigned to OSCEs for either clinical (real and standardised patients) or procedure (mannequins) skills. The average MCQs score for the new curriculum (63.1, SD=8.9, n=261) was significantly higher (p<0.001) than for the previous curriculum (55.3, SD=8.1, n=222). Results also showed that the new curriculum was associated with improved performance in all 6 stations for procedure skills and in 7 out of the 10 stations for clinical skills. We conclude that the introduction of a new curriculum was associated with improved student performance in both cognitive and practical domains.

8H6 A developmental approach to reduce the long term risk of rejection of curricular changes

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Curricula are at threat of being rejected on withdrawal of support for instituting change. A developmental approach would be expected to have long lasting effects. Our 1983 curriculum emphasised learning in context through cases, multidisciplinary presentations, and working as a team member in the final year. A creeping substitution increased didactic content subsequently. A 1999 curriculum review recommended retaining strengths of the original curriculum whilst promoting PBL, and developing students’ responsibility for their own learning. In preparation, faculty development was intensified; cases developed and tested; IT support enhanced; and small group learning rooms included in new construction. Additional finances support clinical faculty in educational administration. Exemplary teaching is rewarded. Institutional growth and merger of Basic Sciences departments fortuitously supports the change. These measures and the small total class size of under 100 students, are likely to assist long term compliance with the changes to be implemented from October 2002.

8H7 The final year in undergraduate medical education: key position between theory and daily routine

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It was the aim of the study first to analyse the characteristics of the actual situation of final year students and to define the content of a new curriculum. A questionnaire was handed out to 37 residents of the Department of Surgery and Traumatology at the University of Bonn and in a second version to 14 final year students who worked in these departments from April to July 2000. The return rate was 81.1% for residents and 100% for students. The results of the questionnaires showed a deficit in practical skills and interdisciplinary medical education. Six goals for the curriculum could be defined: Improvement of history taking and physical examination; improvement of creating surgical treatment plans; acquisition and application of practical surgical skills; management of situations that require immediate medical intervention; interpretation of radiological examinations; and improvement of communication skills with patients as well as with relatives and colleagues.
Session 81 Communication skills training

81 Which interviewing skills must be actively taught at medical school?
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The study looked at which interviewing skills must be actively taught at medical school. 29 and 60 students from the last semester in their studies, and from two different years, were randomly selected in a medical school where there is little systematic training of interviewing skills. They were videotaped as they performed an interview with a standardised patient. The interviews were rated using the Arizona Clinical Medical Interview Rating Scale. Interrater reliability was controlled. The students rated high on 6 of the 14 items of the scale, low on 2 and very low on 6. The strengths were such as characterize civil conversation. The weaknesses were important interviewing skills such as summarizing, using open ended questions, etc. There was good agreement between years, indicating a systematic trait in strengths and weaknesses. We believe our results can be used for planning interviewing skills courses in medical schools.

814 SEX SEX SEX, oh yes, and how’s your knee?
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Our study shows that, with the exception of the specialties of O&G and sexual health, medical students rarely ask patients questions about sex, even when they think this might be an issue. A workshop using role-play was introduced to address this shortfall in general medical history taking. One hundred and ninety two students completed pre- and post-workshop questionnaires comprising 12 attitudinal statements. Subsequent cohorts completed a questionnaire to assess future intentions to ask patients about sexual health issues. Results showed a statistically significant improvement in all the attitudinal statements. After the workshop 84% of students stated they were now likely to ask patients about sex when they thought it was relevant. Moreover one-third intended to include such questions as part of their review of systems. There remains a group who do not think they will be asking patients questions about sexual health.

816 Training of the systemic approach in doctor patient communication I: history taking from a third party
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The format of the usual training of communication skills is derived from the conversation of the doctor with an individual patient. However, when a patient does or cannot speak for himself (for instance because the patient is too young or too ill), the patient is represented by somebody else. This is generally a parent, a partner or an adult child, who in turn speaks on behalf of the family to which the patient belongs. Moreover, doctors have to deal increasingly with patients who are accompanied by a third person. In both cases, doctors have to face so-called systemic
dynamics, a term derived from family therapy, and which focuses on relations, coalitions, behavioural codes etc within the core family. Systemic dynamics may have a strong impact on diagnosis and treatment. In the first part of this double presentation, we will show a video of a training, which involves the major sources of information distortion, which might result from history taking from a third party.

816 Training of the systemic approach in doctor patient communication II: history taking with a patient and a third party

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The next part of this double presentation focuses on a training of a consultation with a patient and a third party. In such cases the doctor is confronted with two people who usually have a long history of intimate life in common, which has resulted in a specific pattern of interaction and behavioural codes. Any remark of the doctor addressed to one of them, also has implications for the other, and may disrupt the mentioned pattern of interaction and behavioural codes. This type of consultation involves a number of skills: to be in control of the consultation, to negotiate, to give both parties equal attention. Training also focuses on how to avoid pitfalls, such as choosing sides, arbitrating, allowing the dominant party to overrule the other etc. A tripartite consultation requires different communication skills than a patient-centred interview. In our presentation we will also show a video of how students can be trained in this type of consultation.

817 Breaking bad news - evaluation of courses run by students and young doctors

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Breaking bad news is one of the most challenging tasks in medical communication. At German medical schools communication skills training is usually not part of the curriculum. A group of experienced students and young doctors started a breaking bad news course for medical students in their fourth year of medical training. During a weekend course, participants receive excessive training of the subject in role-plays in small groups. Every student is able to play the role of the doctor as well as the patient’s part in different situations which are handed out as paper cases. We evaluated these course with questionnaires, one before and one after the course. The values of self-rating regarding the capability to break bad news improved. Teaching methods like peer group learning and role-plays were judged positive for the subject.

Session 8J Clinical teaching

8J1 Increasing student awareness of strengths and weaknesses using a standardized patient case

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Two classes of second-year medical students (n=105, class of 1999; n=107, class of 2000) rated awareness of their strengths and weaknesses in performing a physical examination, taking a history, and communicating with a patient before and after an interaction and feedback session with an SP. The ratings were on a 5-point scale; 1-not at all; 2-a little; 3-moderately; 4-very; 5-extremely. The results showed that students were “moderately” aware of their strengths and weaknesses before the encounter and “very” aware following the encounter. The ratings increased from pre to post on average 1.0 standard deviation (ranging from .69 to 1.21 DSs) showing increased awareness of strengths and weaknesses as a result of the whole interactive session. Changes in awareness of strengths and weaknesses for each of the three outcomes separately as well as relationships between changes in awareness and performance on the SP case will be discussed.

8J2 Clinical dermatology: prospective randomized comparison of a traditional, a personal bed-side teaching (PBST) and a problem-oriented-practical (POP) course

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To assess satisfaction, practicability and knowledge gain, students were randomly allocated to a traditional course (lectures and bed-side teaching; evaluable n=137), bed-side teaching groups always with the same teacher (PBST, n=37) and POP groups only using “paper-cases” (n=36) over two terms. For evaluation, a questionnaire and multiple-choice tests, written anonymously at start and end of the course, were used. The PBST-course (1.7 ± 0.7; mean ± SD) and the POP-course (1.6 ± 0.8) were rated significantly better (p<0.001) than the traditional course (2.7 ± 1). The mean number of correct answers rose significantly only in the PBST and POP-groups (p<0.05). In the PBST-course it became increasingly difficult to find suited patients during the term. The POP course thus showed acceptance and MC-test results as in a PBST, but overcame its problems.
Clinical skills like history taking and physical examination are basic skills for clinical reasoning and the right decisions in patient management. How should a curriculum be planned and implemented to get the best evidence medical education? At the Medical School of Berne Switzerland fundamental changes in the third year curriculum (first clinical year) allows the establishment of a new state-of-the-art curriculum. The presentation describes the needs and the change management, how the goals and objectives were formulated, the instructional strategies (small group work, standardization of the training, instruction of tutors, use of guidelines), the credit system, the use of information technologies and the barriers of the new curriculum. Homepage: http://studmed.unibe.ch

Gender discrimination by patients can affect the clinical experiences medical students get. Excluding male medical students from the gynecologic exam or the prenatal visit may directly affect their clinical performance. We hypothesized that patients who were told the student’s gender (males in particular) prior to the examination were more likely to reject the student than patients who were not told the student’s gender in advance. Our experiment tested this hypothesis by assigning students to one of two female residents in an ob/gyn clinic who in asking permission of the patient would either refer to the student as a medical student (gender neutral) or identify the student’s gender. Patients (n=66) did not differ (p> .05) in responding to the two conditions; however they rejected only males in the gender specific situation. The way students are presented to patients can affect patient receptivity to them.

Discrepancy between fantasy that is perceived during preclinical studies, and reality as met during clinical rotation may cause difficulties and frustration, a state that can be defined as “reality shock”. An open interview was conducted with 40 students attending their first clinical rotation in an internal medicine department. Main difficulties described by the students were their position within the department staff, and their right to disturb patients while taking their history and making a physical examination. Significant gaps in “doctor–patient relationship” as met in real life opposed to what was learned at school, and gaps in “success rates” in medical treatment between real life and fantasy contributed also to “reality shock”. Reality shock is common in medical students attending their first clinical experience and can contribute to students’ frustration and burnout. Medical schools should take this into consideration in planning the preclinical and clinical curriculum.

The aim of the study was to test whether better horizontal integration was achievable in the clerkship phase of a problem-based curriculum. Eight first clerkship students using a learning portfolio and attending weekly group tutorials to support self-directed reflective clinical learning were compared with 16 historical and 16 contemporary controls. Results revealed mean agreement with: ‘I was able to see the types of patients I needed to see’ rose from 3.5 ± 1.1 to 4.4 ± 0.7; 0.1>p>0.05. Historical controls commented on the inappropriateness of casemix whereas experimental subjects commented positively about casemix, and outpatient learning. Mean rating of outpatient learning rose: 3.6 ± 0.8 to 4.6 ± 0.5 (p= 0.001). Mean rating for inpatient learning was unchanged. Despite those improvements, learning remained strongly influenced by the clerkship’s specialty interest. It was concluded that some measures of experiential clinical learning improved; other interventions are needed to help students cross specialty boundaries.
Session 8K  International aspects of medical education

8K1  Influence of Studying on Students’ Health (ISSH)

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The aim of the project is to find out if there is a correlation between studying and students’ health, especially if there is a significant correlation between the students’ health and the various medical education systems. This study is part of an international project organized by the IFMSA (international student organization). Croatian Students developed a questionnaire for students, which consists of 27 questions divided into four sections – General information, General health information, Studying, Health and Lifestyle. In our analysis we focus on three aspects: 1) education system 2) educational level 3) medical/non medical students. The first steps of the study have shown that students’ health has deteriorated since the beginning of their studies. They consider their health to be worse compared to the peer population. About one third suffer from vision deterioration, drink much more coffee and take less care of themselves.

8K2  A comparison of curricula – a cross country approach

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Comparison of undergraduate medical curricula in various countries was undertaken within the JEP-Tempus project and involved four medical schools. It was found that:

- The total number of hours varied from 3500 to 6500;
- The lists of courses were not compatible because of their different names and content;
- The content of courses could be compared after identifying the topics according to the traditional disciplines;
- When viewed from this perspective the essential content of four curricula appeared quite similar;
- The accents underlying importance of particular subjects were distributed differently;
- The structure of curricula reflected by percentage of lectures, small group sessions, laboratories, varied considerably;
- Other components of the curricula such as clerkship, electives, bed-side teaching, research, revealed also school specificity.

8K3  International differences in medical content preparation

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Scores of medical students from eight regions of the world were compared by means of a standardized, content-focused exam targeted to the United States Medical Licensing Exam (USMLE, Step 1). The diagnostic exam was offered in English to participants studying at Kaplan Medical Centers in the United States. Analyses examined differences in scores in traditional medical subject area and by organ system knowledge. Results show that students trained outside the US averaged significantly lower scores in most areas, with the largest differences found in Biochemistry, Behavioral Sciences, and General Principles. Scores on Microbiology were most similar to US students across all groups. Students trained in South America had the lowest scores, while students from Asia show the most similarity to US trained students. Results are discussed with reference to the role language fluency in determining test scores and international differences in medical education.

8K4  New trends at TSMU: elaboration of medical education conception

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In Georgia, as in other post-Soviet countries, a necessary condition for success of the current reform in healthcare is a basic reorganization of the medical education system, which first of all means introduction of the optimal model of teaching. The Outcome-based Model of medical education has been considered as the most acceptable method of teaching at TSMU. This means the introduction of a flexible, integrated teaching frame-plan and appropriate study programs, that enable us to align professional activity of the graduates with the knowledge accepted at the University. The aims of the teaching process and main criteria, which should correspond to each grade of the study process, will be defined according to the last outcome. For optimization of the teaching process at TSMU some problems must be solved. First of all it is necessary to take part in the important process of inter-recognition and inter-acknowledgement of recognised medical schools, which, through international experiences and with support from AMEE and the other educational organizations and international programs, will give us the opportunity to improve the qualifications of our university professors at other medical schools through visits and training courses. In addition, it is very important to extend the existing practice of student exchanges with leading university clinics (more than 100 students are being trained abroad annually).
Learning Needs Assessments for Refugee Doctors; establishing baseline data about medical knowledge and experience
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The profound and all embracing sense of loss experienced by refugees may be compounded for professionals, many of whom feel their special skills and knowledge are unused. Dependence on welfare and charity, loss of pride and socio-economic standing contribute further to low self-esteem and lack of confidence. We organised a learning needs assessment workshop for refugee doctors as part of a wider programme. Participants took a knowledge test in the same format as the new GMC PLAB test. Next, doctors working in the NHS interviewed refugee doctors to ascertain their experiences and expectations. Feedback from the interviewers and the refugee doctors was systematically recorded. We present here the outline of the wider programme, the themes from the interviews, the results of the knowledge test and plans for future work.

Helping refugee doctors back to work
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It is estimated that there may be as many as 2,000 refugee doctors living in the UK. They face a variety of hurdles (including loss of professional documentation and status, separation from family/friends, financial hardship and language difficulties). To date, a minority has succeeded in gaining clinical employment in the NHS. In November 2000, a project was initiated by London Deanery with the following aims:

- To offer refugee doctors support, career advice and help with obtaining clinical attachments;
- To directly place them as appropriate in specially arranged supervised senior house officer posts.

To date 20 doctors have been seen; 6 have been directly placed in clinical posts; 4 have clinical attachments that will lead to clinical posts. As a result of these efforts a network of support has begun for refugee doctors in West London. By listening to their stories, we have gained an enhanced appreciation of the difficulties faced by them.

New York University School of Medicine Master Scholars Program
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New York University School of Medicine's new and unique Master Scholars Program was launched in June 2000. The overall mission is the creation of a fabric of learning that promotes the principles of humanism and professionalism throughout all aspects of the education of physicians. A second mission is that the Master Scholars Program serves as a center for the development of ideas on contemporary social and ethical issues. It achieves these missions in a variety of ways through:

1. The medical student curriculum where humanism and professionalism are interwoven with the study of science;
2. Student mentoring activities;
3. Seminars where students and faculty discuss topics of relevance;
4. Development of joint degree programs with the other schools of New York University;
5. Monthly colloquia on topics of public interest;
6. Scholarly publications;

This broad program is implemented through five theme-based Societies (biomedical and health sciences; medical informatics and technology; health policy and public health; bioethics and human rights; and arts and humanities in medicine in which both students and faculty participate. [www.MasterScholars.med.nyu.edu]

Session 8L Special subjects

And now for something completely different... reflective style learning of the Arts in medicine
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There is an increasing trend towards including a study of the Arts in undergraduate medical curricula, and the Leicester-Warwick Medical School has set up a module using the study of literature, drama, music and visual art to enhance students’ understanding of the human experience in health and sickness. As well as marking a departure from the study of more traditional scientific and clinical subjects, new ground is broken in using multi-disciplinary tutoring and in introducing students to a more reflective style of learning in the form of personal learning journals. This presentation describes why and how the module was set up and how reflective
learning practice is useful to students and doctors. An evaluation of the module’s success so far will also be given.

8L2 Seamless humanities: on integrating medical humanities into medical education: the Witten project

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We report on the curricular development and first year experience with the “seamless” integration of medical humanities into a medical reform curriculum at Witten / Herdecke University, Germany, aiming at enhancing the communicative and ethical competences of medical students. Specifically addressed will be the strategies employed for opening up problem-based learning and simulated patients to topics in medical ethics, philosophy of medicine and medical history. We will stress the importance of overcoming traditional disciplinary orientations in the medical humanities and argue for a topical, hands-on approach seeking to develop the “humanistic skills” of medical students in clinical contexts.

8L3 Improving clinical reasoning in novice clinicians: a diagnostic training aid to support clinical reasoning in student physiotherapists

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Medicine and physiotherapy (PT) are two health care professions to identify difficulties in Clinical Reasoning (CR). CR comprises cognition, knowledge and meta-reasoning, with research suggesting that knowledge is the key to expertise. This paper describes the testing of a diagnostic training aid, designed to support knowledge. Two groups of PT students (halfway through their clinical education hours) were recruited. Using a standardised case study, they verbally reasoned about the diagnosis and treatment plan. One group used the training aid. Content analysis and the Mann-Whitney test were used to analyse these data. Subjects using the diagnostic training aid (n=8) recruited significantly more knowledge (p<0.005). Their final diagnosis was more closely aligned to the actual diagnosis (p<0.005) when compared to the subjects (n=9) not using the training aid. These results suggest that providing knowledge support could assist in developing clinical competence in PT students.

8L4 The culture of criticism and argument in health education

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The development of critical reading and writing skills in postgraduate students in Public Health Management with considerable professional experience, but whose previous academic learning did not require a critical-analytical approach, is described. The ability to review and analyse past theory and practice and to critically analyse and evaluate public health programs is an essential element of the skills required by graduates. The paper describes and discusses the teaching and learning strategies used in critical analysis sessions. The personal and systemic barriers to achieving substantial change in cultures of learning are reviewed. The paper concludes that significant changes in the ability of students to critically analyse texts and topics were achieved. The value of critical analysis in medicine is described and the implication for medical education at all levels is considered.

8L5 Development and interim evaluation of a new postgraduate course in community gynaecology and reproductive health care

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Community Gynaecology and Reproductive Health Care is a rapidly developing specialty of increasing importance in Primary Care. As well as those doctors and nurses wishing to pursue a specific career in this field, there are many general practitioners who see a large proportion of women’s health care problems in their practice and would like to develop further specialist knowledge and skills to help their patients. To meet the needs of these professional groups, the School of Postgraduate Medical Education at the University of Warwick has developed the first higher degree course in Community Gynaecology and Reproductive Health Care. The Warwick courses, leading to Certificate, Diploma or Master’s degree, are designed in a modular format to provide flexibility and the opportunity for progressive study. This paper will describe the development, content and delivery of the course together with the results of an interim evaluation of data from the immediate post-module evaluation forms.

8L6 Palliative Medicine education for Internal Medicine Resident Physicians

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A required month of Palliative Medicine clinical experience, integrated into the existing geriatrics rotation, was introduced to the Internal Medicine residency curriculum at the Medical College of Wisconsin in May 1999. The objective is to improve residents’ knowledge and skills on various aspects of Palliative Medicine. Experience takes place at the Milwaukee VA hospital palliative care unit. The objective is achieved through direct patient care (2 patients/resident), bedside teaching rounds (2 hrs/week), and lectures (2 hrs/week). Educational domains are disease prognosis assessment, pain management,
symptom control (nausea, vomiting, anorexia, constipation, bowel obstruction, dyspnea, cough, delirium, depression, anxiety). Residents complete a pre-post knowledge assessment questionnaire at the end of their rotation. Statistical analysis (n=28 questionnaires) demonstrated a significant increase in knowledge for each educational domain taught during this experience. This teaching format can be considered when implementing Palliative Care education into Internal Medicine residency programs.

A workshop based on principles of neuro-psycho-immunology combined with skills of empathic communication was designed as a 2-week elective for 6th year medical students. The workshop included topics such as the psycho-neuro-physiological basis of stress-induced syndromes (e.g., panic disorder, chronic pain) and of behavioural interventions in these situations; the use of relaxation, meditation and guided imagery in medical practice; principles of empathic communication and their application to difficult interpersonal situations (e.g., angry, depressed, or anxious patients); breaking bad news; truth telling; and difficulties around sex-related issues in medical practice. Teaching methods were mostly experiential, including role-plays, videotapes, exercises of relaxation, and encounters with patients. Feedback data presented reflect high appreciation of this workshop and emphasise the need to include these topics in the curriculum.

8L7 Teaching stress management and empathic communication to medical students

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The role of clinical experience in the acquisition of clinical reasoning: Implications for education

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An extensive body of research in psychology and medicine indicates that many diagnostic problems are solved by recognizing their similarity to a previously encountered specific example. This “exemplar-based” reasoning is both efficient and effective. However, if this is a critical component of expertise, we must give serious consideration to how students can obtain sufficient clinical exposure. The talk will review some of the research evidence in support of exemplar-based reasoning, and describe experimental tests of alternate instructional strategies.

Keeping standards up to date

Susanne Pruski
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Medical knowledge is expanding and changing rapidly. Consequently standards in medical education should be adapted continuously. However our learning objectives are largely overstuffed, reflect specialty/departmental interests and their relevance is often unclear. The aim of a modern medical school should be to include a manageable, ever-adapting, interdisciplinary core curriculum. Relevant standards are of crucial importance for the self-directed undergraduate learner as well as for the lifelong postgraduate learner.

Humour in medical education is like a box of chocolates ...

Ron Berk
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This session will present research-based teaching techniques for integrating humour into your course handouts, examples, case studies, discussion questions, problems, tests, wedding invitations and parking tickets. Examples include quotations, cartoons, multiple-choice items, top 10 lists, anecdotes and skits/dramatizations with music. This presentation “boldly goes where no medical educator has gone before,” maybe!