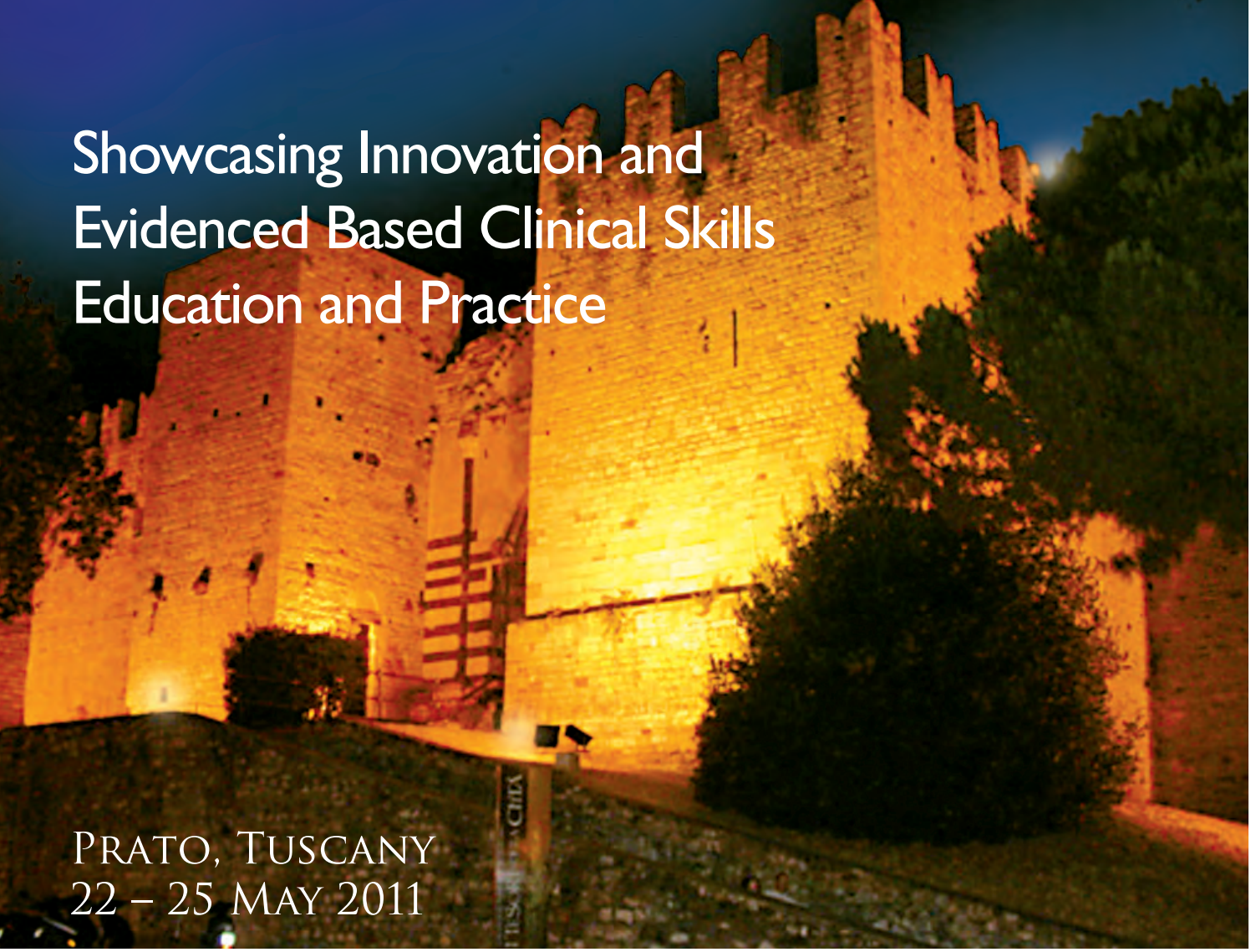

Showcasing Innovation and Evidenced Based Clinical Skills Education and Practice

Prato, Tuscany
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Fourth International
Clinical Skills Conference

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4th International
Clinical Skills Conference

Showcasing Innovation and Evidenced Based Clinical Skills Education and Practice

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Abstracts

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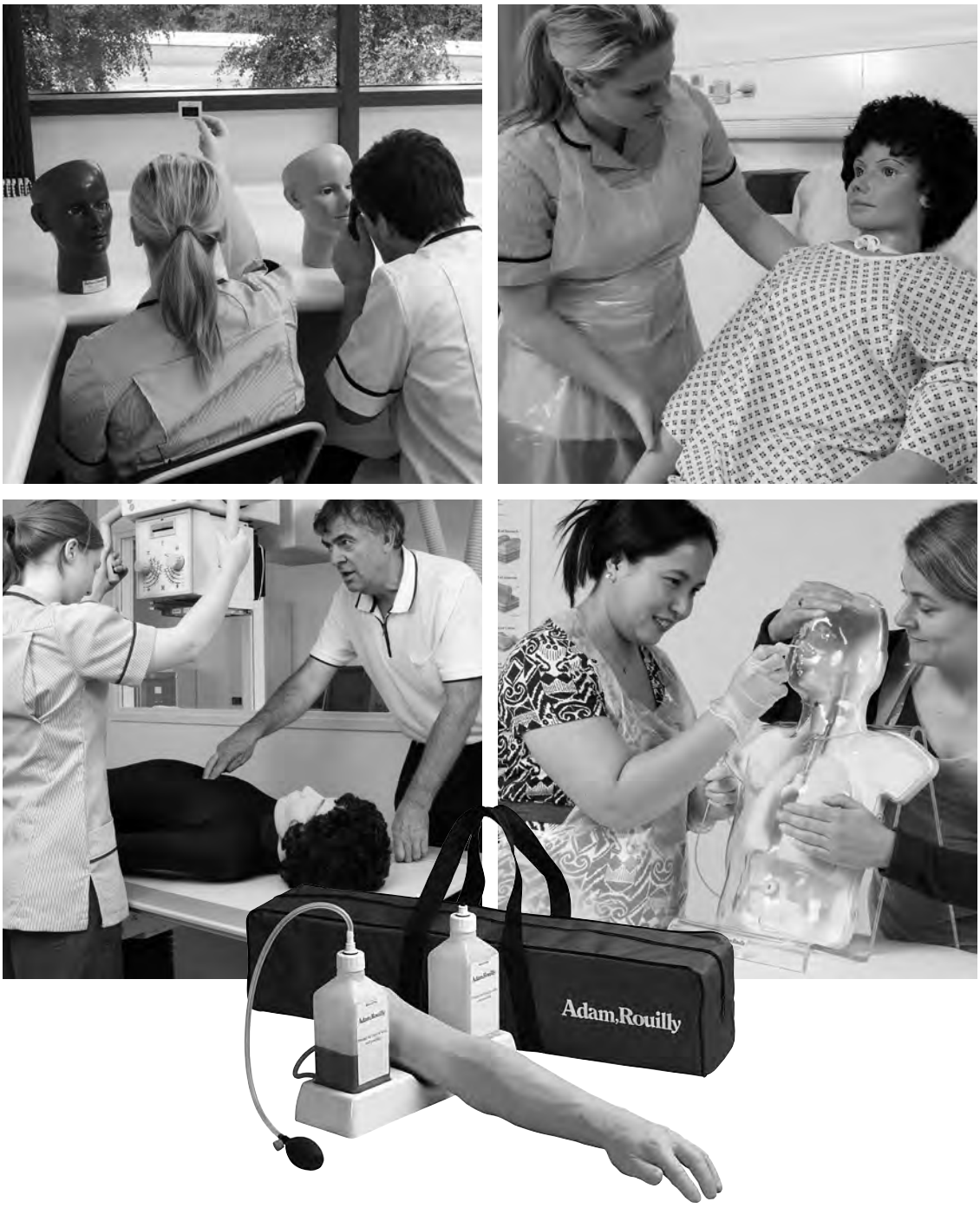
Adam,Rouilly



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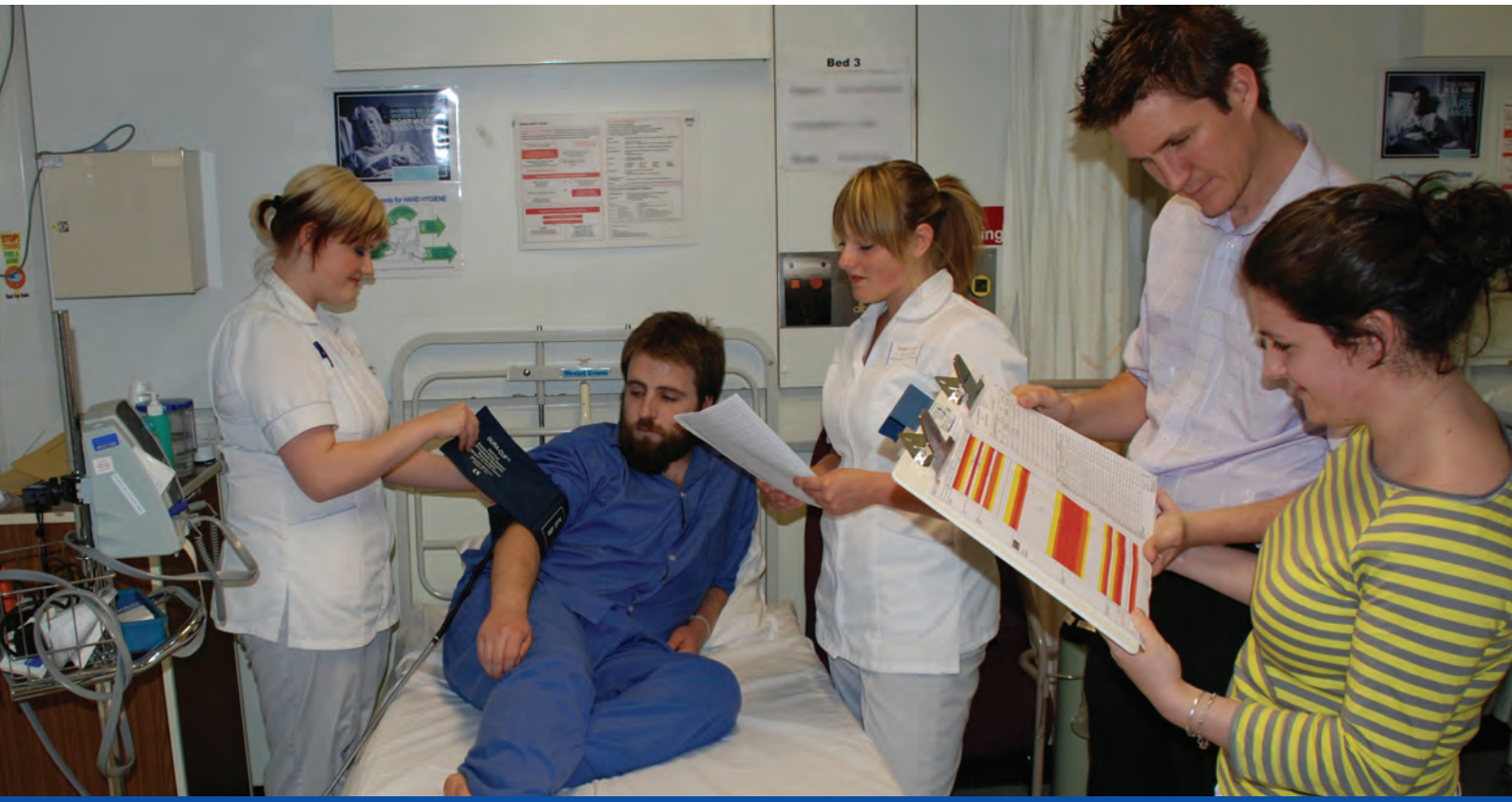

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KEYNOTE ADDRESS KA 01

Simulation-Based Education: Theory and Practice

Dieckmann, P.

Simulation-based education has much potential in health care, but also limitations. This keynote explores relevant theoretical concepts for an optimized use of simulative methods in health care education and training. What position can simulation have in an adult learning concept and what theoretical frameworks can inform the conduction of simulation-based education? Simulation can be an integrative part of any experiential learning setting, but at the same time poses some challenges for educational alignment of the different stakeholders involved (commissioners, trainers, participants). To fully use this potential, the simulation setting as the context of the learning experience needs to be optimized with having the educational goals in mind. Different elements of any simulation setting interact with each other and depend on their joint optimisation. Simulation instructors need to optimize the conditions for learning and do all they can to help participants to learn. On the other hand instructors cannot "make" participants learn thus it is necessary to clarify the mutual expectations, tasks and responsibilities.

In terms of practical implications, at times the "gear" can get in the way of optimized learning. Often the possibilities and limitations of simulation devices and the clinical experiences of the instructors provide the guidance for the design and conduction of simulation settings – not the educational goals. Based on the exploration which educational goals might be achieved with simulation and based on the theoretical foundation practical implications for simulation-based education will be described. While the talk will focus on manikin-based simulation, principles are applicable also for other simulation modalities.

KEYNOTE ADDRESS KA 02

Learning, forgetting and implementing: Challenges in implementing innovation in health education

Marshall, S.

We all start off with good ideas and best intentions to implement our innovations. In health education that generally means improving safety though education of our patients, colleagues and junior health professionals. Unfortunately the application of these ideas can go astray, and we don't quite see the effect on practice and in the workplace that we had hoped for. Why is this? Are there patterns that are playing out preventing our ideas from reaching their intended potential?

In 1869 Thomas Alva Edison patented his first invention, the electronic voting machine designed for use in the US Congress. Despite the apparent need for such a device the machine was never sold or used. The political environment at the time was more heavily based on lobbying, meeting and talking to political allies and adversaries. Removing the politician from the required day-to-day social interactions would require a big cultural shift that the political system was not ready for. Furthermore, improving the efficiency of the process would prevent politicians from using delaying tactics to block new legislation.

Edison had made the mistake that many medical educators continue to make today; he thought that everyone else would see the benefits of a new way of doing things, and he ignored the existing social and cultural factors of the workplace.

The 'Medical Emergency Team' (MET) or 'Rapid Response Team' (RRT) is an example of a good idea that has gone awry in the health workplace. The notion is that abnormal physiological measurements such as blood pressure and oxygen saturations can trigger a specialist team to respond and troubleshoot why the patient has become critically unwell. Studies looking at individual patient outcomes following a RRT call have shown marked improvements in survival [1] Conversely, this improvement has not been translated into reductions in mortality and cardiac arrest on an institutional scale following implementation. The reason appears to be the very low usage of the RRT despite attempts to mandate its use [2].

Hospital Rapid Response Systems seem to be failing for the very same reason that Edison's voting machine failed; they have been implemented with no regard to the existing workplace culture or the way work is done.

How can we learn from Edison's successes and the emerging literature of 'knowledge translation' [3] to help implement our innovations?

In this presentation I will explain how we, as educators and clinicians, can ensure good ideas are transferred to the workplace where they can have real results. Using the example of the Medical Emergency Team, I will show how a well-meaning but ineffectual implementation of a good idea can be salvaged and eventually lead to improved patient safety in clinical settings.

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KEYNOTE ADDRESS KA 03

Learning clinical skills in the workplace: creating professionalism dilemmas for healthcare students?

Rees, C.

There has been much discussion within the medical education literature about inter-related aspects of the curriculum (formal, informal and hidden) and how these interplay within healthcare students' learning. [1] With the advent of formal curricula for clinical skills learning (e.g. simulation), students are commonly placed in professionalism dilemmas while learning clinical skills as part of the informal and hidden curriculum (i.e. the clinical workplace). [2] Research into clinical skills learning has often focused on the formal curriculum—most notably technical issues from an individualist perspective such as the assessment of students' clinical skills and the teaching of clinical skills through simulation. [3-4] Instead, this presentation pays attention to probably the most under-researched aspects of the curriculum—the informal and hidden curriculum—and how clinical skills are learnt by medical and other healthcare students in the clinical workplace. Underpinned by an interactionist/social rather than individualist perspective, Charlotte will use examples from her collaborative program of research with medical and healthcare students' professionalism dilemma experiences in four countries (England, Wales, Scotland and Australia) to illustrate the conflicts between the formal and the informal/hidden curriculum for clinical skills learning and how these conflicts can create professionalism dilemmas for our students. [2] Instead, Charlotte will argue for a shift from conflict to complementarity between the formal, informal and hidden curriculum and will provide various recommendations on how this may be achieved.[2,5]

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KEYNOTE ADDRESS KA 04

Sharing the best evidence in the use of clinical skills education and practice

Rymer, J.

Kings College London School of Medicine

Clinical skills and communication skills cannot be separated. An intimate examination is probably the most challenging skill to teach to a medical student. Historically the skills of intimate examination have been learnt in breast, gynaecology, genitourinary medicine and/or surgical clinics. This is not the best environment for learning because these clinics are generally overbooked, and there is little time for teaching. Communication between instructor and student is inhibited by the presence of the patient since the primary purpose of the consultation is for the patient’s benefit. The patients are usually anxious about the prospect of an intimate examination and the student’s anxiety may be even greater. Teaching intimate examinations has also relied on students practising on anaesthetised patients but this introduces a conflict between educational needs and ethical requirements

The use and development of mannequins for teaching clinical skills has been a major advancement in medical education, however mannequins alone don’t address the teaching of communication skills.

Patients’ involvement in medical education is clearly the way forward and an ideal learning model would perhaps begin with anatomy, and then move onto demonstration with a mannequin, then a half woman/half mannequin to attempt communication skills. The gold standard however would be a real woman trained in pelvic examination who can give feedback on both communication and technical skills in an unthreatening environment. Lay women can put themselves into the place of a patient more easily and appreciate the anxiety or unfamiliarity with medical jargon. Lay woman acting as teachers are in a strong position to communicate these non technical issues to students.

Other models for patient educators include senior citizens acting as models for breast examination, and cancer survivors.

Peer physical examination, in which students examine areas of each other, appears to have its limits and students have particular anxieties about intimate regions based around sexual, gender, religious and cultural concerns. An alternative might be the use of a virtual patient, designed

with the specific aim of enhancing communication skills; a life size avatar, modifiable for different ages, races and constellation of symptoms, projected onto the wall of the examination room with speech recognition abilities has now been developed enabling interaction between the patient and the student and comments from the avatar. Although this has the attraction of flexibility, this cannot replace the hands on experience that lay teachers can provide.

RCT and other evidence is now accumulating in the use of clinical skills education and practice and t is important to disseminate this knowledge and define the gold standard of teaching intimate examination.

It is vital that students be made aware of their responsibilities and acknowledge basic professional requirements. Above all they must be aware of the respect that they need to show for the patient and must know their limitations. Lay women appear to be the ideal teachers in this regard.

KEYNOTE ADDRESS KA 05

Teaching clinical communication: a mainstream activity or just a minority sport?

Silverman, J.

Over the last 10 years, clinical communication skills teaching has come of age. For those of us working in the field, it has been gratifying to see the increasing acceptance of the subject as a formal component of the medical curriculum. However, the title of this talk “Teaching clinical communication: a mainstream activity or just a minority sport?” suggests there is a problem to be faced. Is communication truly perceived by schools and learners as central to all clinical interactions or is it being taught as a token gesture? The prime focus of this presentation is to take an honest look at the present status of communication teaching and consider how to take the next steps to move communication into the very centre of medical education.

This presentation explores why clinical communication often appears to be a minority sport in medical education, considers how to overcome this via integration throughout the curriculum, looks at five specific examples of integration in action

- *Integration with history taking skills*
- *Integration with practical skills*
- *Integration with specialty teaching*
- *Integration with the hidden curriculum*
- *The crucial role of assessment in integration*
  and explores the progression to maturity in communication curricula.

Because of my own background, I am going to look at this issue from the perspective of undergraduate medical education but I very much hope that what I say will translate into other teaching environments especially postgraduate education and the education of other healthcare professionals.

KEYNOTE WORKSHOP KW 01

Creating, recognizing and using learning opportunities: Goal-oriented simulation

Dieckmann, P.

Using simulation in a goal-oriented way means to base the design and implementation of simulation-based education on the educational goals, while at the same time keeping and open mind for learning opportunities that might arise on the way. The simulation team creates learning opportunities – the participants decide, whether they actually use those. Creating is done during the design and implementation of curricular, courses, scenarios, and debriefings. Recognising learning opportunities requires content expertise and awareness of the simulation team. What do actions, utterances and questions of the participants tell the instructors about their knowledge, skills, and attitudes? Do they imply misunderstandings that might need to be corrected? Do they imply brilliant solutions for problems that should be emphasised? Using those learning opportunities means to adjust simulations to the states and traits of participants and base any kind of debriefing on the educational goals.

During the workshop we will use a simulation setting based on a low fidelity simulation-oriented exercise to explore how learning opportunities can be designed, created and used. The exercise can be replicated easily and at the same time provides for rich learning both about complex tasks performed by a group of people as well as the design and implementation of simulation settings. Experiential parts in the workshop will be mixed with reflective parts.

KEYNOTE WORKSHOP KW 02

"Safety doesn't happen by accident": How can we optimise the learning environment to be non-threatening for our participants?

Marshall, S., Hogan, J., Ballinger-Doran, S.

Southern Health Simulation Centre, Melbourne

"Q: Did the simulation session evoke any strong emotions for you today?
A: *Yes, stress, anger and frustration . . . "*

How, as educators, can we prevent these negative emotional reactions to simulation-based education? Preparation of the faculty and participants, appropriate structuring of the session and scaffolding of learning over the course can help, but what is the evidence?

This workshop will challenge the participants to explore the aspects of creating a safe learning environment when using simulation-based education.

Target Audience:
Simulation and Clinical Educators with intermediate level experience.

KEYNOTE WORKSHOP KW 03

Researching clinical skills: Qualitative innovations in medical education

Rees, C.

Bedside teaching within the medical workplace is considered essential for helping students develop their communication, physical examination and procedural skills, clinical reasoning and professionalism. [1] Bedside teaching encounters (BTEs) involve the 'learning triad' of patient, doctor and student. [2] However, observational research relating to how students, patients, and doctors learn with, from and about one another within BTEs is scarce. [2-5] This research typically employs qualitative methods that are fairly innovative within medical education research e.g. audio and/or videotaped observation of BTEs and discourse analysis of those interactions. [2-5] In this workshop, Charlotte will discuss these innovative methods of collecting and analysing data from the medical workplace to explore how students learn clinical skills. Workshop participants will discuss the strengths and challenges of collecting and analysing this type of data. Participants will also gain practical hands-on experience of analysing interactional data from BTEs and comparing, contrasting and negotiating their analyses with each other.

References:

[1] Janicik RW, Fletcher KE. Teaching at the bedside: a new model. Medical Teacher 2003;25:127-130.
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[4] Rees CE, Monrouxe LV. "I should be lucky ha ha ha ha": The construction of power, identity and gender through laughter within medical workplace learning encounters. Journal of Pragmatics 2010;42: 3384-3399.
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KEYNOTE WORKSHOP KW 04

Setting up a gynaecology teaching associate or breast teaching associate programme

Rymer, J.

Kings College London School of Medicine

The teaching of intimate examinations is challenging as it involves communication as well as technical skills. Laywomen have been proven to teach students better than relying on mannequins or training in clinics and operating theatres. There are many barriers to setting up a GTA or BTA programme. Within the workshop these problems areas will be explored and solutions proposed.

Objective:
To instruct patients on how to set up a gynaecology teaching associate or breast teaching associate programme.

Audience:
Educators responsible for teaching intimate examination in medical or nursing curricula

Maximum participants – 20

KEYNOTE WORKSHOP KW 05

Feedback in experiential sessions: managing feedback in different learning contexts

Silverman, J.

Purpose:
This workshop will focus on providing feedback in experiential skills teaching. It will explore how to give feedback in a variety of teaching contexts.

Objectives:
As a result of this workshop, participants will be able to:
1. Describe how to structure feedback to learners to enhance learning
2. Implement key components of effective feedback in experiential skills sessions
3. Compare and contrast the differences in feedback approaches depending on the teaching context including one to one, small group, with video review, with and without simulated patients.

Rationale:
Feedback is a key component of effective skills teaching. Managing the feedback process in a variety of different teaching situations is essential if facilitators wish learners to enhance and change their behaviour in actual clinical practice.

Activities:
The workshop will be highly interactive, participant-centred and experiential. The material used will focus on communication skills teaching, but be applicable to other skills learning. Participants will first observe a consultation on DVD as if directly observing it in the outpatient setting. They will then in pairs explore what they would emphasise in feedback to the learner. With the use of volunteers from the audience, we will then explore in a sequential fashion how to provide feedback in a variety of teaching contexts including one to one teaching, when video review is available, within small groups and with simulated patients. These approaches will emphasize the benefits of strategies such as learner-centred agenda-led feedback, balanced behaviourally specific feedback and opportunities for re-rehearsal of skills in each of these contexts.

WORKSHOP W 01

Facilitating collaboration in the use of simulation: a participative workshop to set priorities and establish an effective research and evaluation network
(W 92 in programme)

Aldridge, L., Harris, M., Ker, J., Mitchell, J., Nichol, G., Scott, M.

A number of reports and papers worldwide make recommendations on evaluating the use and efficacy of simulation in healthcare education[1-5]. In addition, given financial constraints, multi-centre studies can be value added.
Effective collaboration will ensure that research into the benefit, value, methods and efficacy of simulation is undertaken in a well-informed, structured and coordinated manner, which could be used to support both future proposed joint funding opportunities and innovations in simulation.

Aim:
This session will aim to collate and present some current regional, national and international simulation scoping and recommendation reports and literature. It will endeavour to build upon themes that emerged in a preliminary workshop at the ASPiH conference (UK) in November 2010 by setting clear research and evaluation priorities for the advancement of simulation in healthcare through the establishment of a collaborative network; the Simulation Evidence and Evaluation Group (SEEG).

Objectives:
By the end of the session participants will:
- Be able to identify and discuss emergent strategic themes for research and evaluation of the use of simulation in healthcare education.
- Through a collaborative group exercise, have identified priorities for simulation-based healthcare research and helped to shape a future framework for the sharing of knowledge, expertise and resources to promote such evaluation strategies.

References:
[1]A Critical Review of simulation-based medical education research: 2003 – 2009 McGaghie W, Issenberg SB, Petrusa ER, Scalese RJ. Medical Education 2010: 44; 50-63
[2]Bond WF, Lammers RL, Spillane LL, et al. The use of simulation in emergency medicine: a research agenda. Acad Emerg Med. 2007;14:353–363.
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[5]Report on a study of clinical simulation evidence base in the north east of England. NHS north east & CETL4HealthNE 25th February 2009 Prepared by deBurca Ltd.

WORKSHOP W 02

How to Teach Examination Skills – An Interactive Workshop
(W 11 in programme)

Atkinson, L.

Teaching GPs to Teach Clinical Examination: Prosecco Bottle Opening and Other Useful Life Skills

This workshop was developed in response to difficulties that we had experienced in teaching our GP tutors to teach practical examination skills such as long arguments about the correct way to do a particular examination or didactic lectures about how to teach.

Objectives:
By the end of this workshop participants will have:
- Identified skills that are effective in teaching a practical procedure.
- An understanding of how these skills can be applied to teaching examination skills to students.
- Experienced a workshop method for exploring basic techniques involved in teaching which can readily be applied in teacher development programmes.

Intended Audience:
- Clinical Teachers who teach practical skills and examination skills.
- Those delivering developmental sessions for clinical teachers.

Format:
This workshop is intended to be relaxed, informal and fun but still allow participants to explore some of the skills which help in teaching practical skills in medicine.

This is an interactive workshop taking 90 minutes. Participants will be divided into groups of 4-5 and tasked with exploring the skills involved in teaching a practical procedure by teaching a non-medical practical skill to other members of the group. This can be any sort of practical skill and participants are encouraged prepare their teaching beforehand and to bring appropriate teaching materials and props to the session. There will be 10 minutes allowed for each participant to teach their chosen topic.

Examples of skills that have been taught previously include “how to take a good photograph”; “how to bake a cake” and “how to dribble a hockey ball”.

The group will identify the skills and attitudes demonstrated by the teachers in their groups and these will be captured in a short plenary session. The second part of the exercise will be a simulated teaching session where group members will be allocated a role, either as a teacher, a student, a patient or an observer. The task will be to role-play teaching a simple part of clinical examination – we have used examination of eye movements previously.

Each observer in the groups will note which skills from the first exercise are utilised in the clinical teaching. At the end of the workshop the facilitator will discuss with the group how the skills identified have been utilised and how they could be applied in future teaching sessions.

Preparation:
The workshop relies on participants preparing beforehand – both their own practical skill to teach and to also think in advance about how they would teach the chosen clinical skill.

WORKSHOP W 03

Changing the face of clinical supervision (W 115 in programme)

Chipchase, L., Moran, M.

In health professional education, clinical or field based education is fundamental to the preparation of work ready competent practitioners. However, in rural and remote regions of Australia, this is difficult due to workforce shortages where student placements strain the ability of local staff to provide effective learning. Furthermore, students feel isolated from the university and report difficulty being challenged to effectively apply previously learned clinical skills. Negative learning experiences further erode the number of students choosing rural careers on graduation, and the health provision divide between urban and rural settings continues to grow.

This session will describe the development and pilot evaluation of a telesupervision technique for supporting the clinical training of students within physiotherapy, occupational therapy and speech pathology in rural and remote settings to promote higher levels of student engagement. Student satisfaction and confidence with the quality of their supervision will be reported along with commentary from university educators involved in delivering the telesupervision.

In this project, a locally developed telesupervison system (eHAB®) is used by university educators to support, observe and assess students as if they were alongside them in the clinical setting. The technology provides a platform where students can discuss their learning with their university educators and, where possible, include their local field based clinicians who are responsible for on the ground support in a shared supervisory model.

The objectives of this workshop are to:

- learn about the utility of one type of telesupervision system
- discuss the potential for application of other types of virtual communication systems that might be used for telesupervision (e.g. Skype TM)
- explore and discuss whether this type of telesupervision could enable student learning, support remote field based educators and increase student satisfaction leading to greater uptake of rural positions in other geographic settings.
- consider whether this type of telesupervision may have further application to support new graduate health professionals in remote and rural settings to promote a more sustainable and permanent rural health workforce.

Intended audience:
Academics and educators involved in entry level health professional programs that require service based or field work placements particularly, but not limited to, clinical supervision.
No pre-requisites.

Maximum number:
30

WORKSHOP W 04

Clinical Skills Logbooks: Lessons learned (W 191 in programme)

D'Souza, K., Basham, L., Carne, R., Kramer, D., Crotty, B.

School of Medicine, Deakin University, Victoria, Australia

This Workshop aims to:

- Provide a forum for debate on research on clinical skills teaching and learning;
- Stimulate innovation in clinical skills research and development;
- Gather expert and beginner researchers for networking and the development of research and training and collaborations).

Background:
Medical education today is delivered in clerkships at multiple sites, with higher student numbers and less opportunity for students to practice skills/procedures on patients[1]. Increased concern over patient safety puts pressure on universities to 'sign off' on student experience. Therefore, using logbooks in clerkships remains a timely and important topic[2].

Purpose:
We introduced a logbook to assist medical students seek, perform and count clinical skills/procedures in simulated and clinical environments; and assist Faculty monitor experience across campuses (metropolitan/ regional/ rural hospitals; and rural General Practice settings).

Methods:
A Clinical Skills Passport, based on one used in Birmingham, was implemented, containing skills, procedures and attendances deemed essential by Year 3 Curriculum Working Groups, benchmarked against the Australian Curriculum Framework for Junior Doctors. The Passport/logbook was paper-based, with online data backup and assessment. Student feedback and logbook data were analysed.

Results:
Passport implementation commenced in 2010 (Year 3, first clinical year). Difficulties were encountered by Faculty (online data assessment time-consuming) and students (online data entry complex, time consuming; few opportunities to perform some skills). Data capture methods were modified midyear in response to student feedback, and students were involved in logbook redesign for 2011. Cross campus data was analysed.

Conclusions:
Logbooks remain useful, however, their design is crucial as they must be feasible, acceptable, accurate, complete, reliable and valid[2]. Interestingly, in a literature review, nearly all studies were single-institution[2], reflecting that logbooks are being developed concurrently by individual sites at considerable financial and time expense. We believe sharing our lessons learned will assist others with logbook design and implementation.

[1]Crotty B. Medical Journal of Australia 2005
[2]Denton G. Teaching and Learning in Medicine 2006

WORKSHOP W 05

Decisions, Decisions, Decisions:
An integrated approach to the development of clinical reasoning skills
(W178 in programme)

Gay, S., Ambrose, L., Lefroy, J., McKinley, RK.

Keele University, School of Medicine.

Introduction:
Keele University's School of Medicine is in the process of implementing a new undergraduate medical curriculum. Part of this implementation has involved the design and development of a new "Higher Consultation Skills" programme. This programme takes place in the 4th year of the medical course. It involves a community-based week integrated into each of the secondary care units. In this way students are able to link their experiences of clinical reasoning from specialist hospital attachments into the rich variety of community medical practice. The intention is to help medical students explore, enhance and refine their clinical reasoning over the course of the year. Each of the weeks of higher consultation skills starts with a classroom based taught session, which covers key elements and theories relating to clinical reasoning, and discusses both safe behaviours in clinical reasoning and different types of error.

This workshop will use this programme as a starting point to explore the learning objectives for the workshop and to discuss participants' experiences and views on the teaching and learning of clinical reasoning.

Format:
The workshop will involve a combination of plenary and small group discussion. Participants will be asked to discuss clinical reasoning challenges they have personally faced and also what strategies they have seen or used to facilitate the development of students' clinical reasoning skills. Following this the materials used in the higher consultation skills programme will be introduced to the group and participants will be invited to identify and evaluate how they might use the triggers and materials within their own courses.

Initial group activity	An exercise in clinical reasoning
Plenary	Discussion of theory and practice
Group activity	Groups select trigger materials to try out and discuss
Final plenary	To draw on group experiences and conclusions

Outline:
This workshop will outline current evidence and opinion about clinical reasoning skills. Participants will have the opportunity to discuss and evaluate different approaches to the development of clinical reasoning skills during the workshop.

Objectives:
By the end of the workshop participants will be able to:

- Recognize the role of clinical reasoning in healthcare practice
- Identify the current theoretical models of clinical reasoning
- Discuss current opinion about teaching and learning clinical reasoning
- Reflect on their personal experience of learning about clinical reasoning
- Synthesise the evidence to identify learning opportunities for students
- Evaluate the role of taught clinical reasoning in different curricula

Intended audience:
This workshop is intended for those with an interest in the development of clinical reasoning skills for health care practitioners. No previous experience is required.

WORKSHOP W 06

Designing and Developing a 'Patients as Educators' (PAE) Programme (W 143 in programme)

Hague, M., Burney, A.

The objectives of the proposed workshop are to encourage participants to

1. Develop an understanding of the opportunities that a Patients as Educators programme presents within the context of curriculum development and the changing healthcare delivery
2. Determine some general principles about the safe and effective involvement of patients as educators
3. Share experience and expertise, and network informally
4. Listen to the stories of some of the Sheffield Patients as Educators group who will share their experiences

Intended outcomes:
The participants will understand the key concepts of a 'Patients as Educators' programme and how they might incorporate them in their current teaching practices.

Structure:
The experiences and evidence from the Patients as Educators programme at Sheffield will be briefly presented. The workshop will be highly interactive requiring participants to apply the key concepts of patients as educators programme in their current teaching, learning and assessment practices.

Intended Audience:
The workshop is intended for healthcare professionals, including doctors, nursing and paramedics who are interested in the development or expansion of a unique teaching programme. The Patient as educators programme actively involves NHS patients to be part of clinical education and training of undergraduate medical students.
There are no pre-requisites to attendance.

Level of workshop: Intermediate

Maximum number of attendees: 15

WORKSHOP W 07

Developing approaches to improving professionalism in undergraduate medical students (W 54 in programme)

Hammond, A., Henderson, J.

Since the inception of our medical school seven years ago we have noticed that despite undergraduate medical students having an awareness that doctors have expected professional behaviours they have not always appreciated how professional behaviour applies to medical students.

Professionalism issues have arisen both within and outside the medical school. This has been particularly evident during the introduction three years ago of peer physical examination as a means for students to acquire physical examination skills.

We have been able to address these issues in several ways -
At an institutional level we have both been closely involved with supporting tutors and students as issues have arisen. Challenges that have arisen have informed tutor training –helping tutors to feel empowered to deal with issues themselves.

Professionalism issues are addressed in staff development sessions covering acceptable behaviours and tutors are encouraged to draw on each other for advice. For example, we involved our tutors in the development of a session which involves case vignettes around appropriate behaviour in physical examination sessions.

We have developed a highly effective process of peer observation within the tutor group. Existing tutors mentor new tutors. We are proud to have developed a group of experienced clinician tutors with diverse views who have collective ownership of the teaching process.

On a practical level we have raised the 'professionalism' thread in the students' learning experience – via lectures, written material and discussions. For example, one of the first lectures given to the first year students focuses on professionalism and its relevance to them within both clinical and non-clinical teaching sessions and also outside the medical school.

One area that continues to challenge both students and tutors is that of cultural diversity and how this sits alongside expected professional behaviours.

Objectives:
During this workshop participants will identify challenges and solutions at both individual and organisational levels in professionalism issues with undergraduate medical students. They will be able to role-play relevant scenarios and evaluate the effectiveness of these solutions.

Intended audience:
This workshop is aimed at those involved in teaching clinical skills to undergraduate medical students both in a university and a clinical setting.

Maximum number of participants: 20

WORKSHOP W 08

How should we be teaching and assessing procedural clinical skills?
(W 163 in programme)

Kellett, C., McLeod, R.

Clinical Skills Centre, University of Dundee

Introduction:
By utilising innovative teaching approaches and technological advances in the simulated environment, faculty members can optimise learning and assessment opportunities. The assessment process can be improved by student involvement and that student learning can also benefit from this involvement. (Falchikov 2005) Duffy et al (2004) also highlighted that observing, assessing and providing feedback to students will aid the improvement of skills.

Aim:
The intention of this workshop is to explore participant's experiences of a video recorded procedural skill and to discuss utilizing video analysis as a teaching/assessment tool. This project would investigate two important issues arising from our teaching. First, how well are students able to assess their own performance of procedural clinical skills? Second, is their self-assessment improved by viewing a video of their own performance?

Method:
Participants would be invited to carry out a procedural skill (DONNING SURGICAL GLOVES). Participants would then complete a self-assessment before and after watching a video of their performance. A benchmark video (Royal College Surgeons of Edinburgh) is then shown to audience.

Discussion:
TRADITIONAL (CHECKLISTS) v VIDEO-RECORDING/DOPS
- educational impact,
- validity,
- reliability,
- cost,
- acceptability,
- feasibility

These evaluation findings would be discussed and future directions explored.

Results:
Comparison of faculty and participant self assessment would reveal a tendency for students to either overrate or underrate their performance and identify any concordance / discordance between students and faculty in carrying out a procedure. Participants'

perceptions of video analysis for assessment of procedural skills would also be explored.

Conclusion:
When a student's self assessment is coupled to tutor assessment it can open up a student-tutor dialogue which can be a powerful learning opportunity. This WORKSHOP could show that students/participants regard the use of video cameras in the clinical skills laboratory as a useful tool for assessing competency.

References:
Duffy FD, Gordon GH, Whelan G, Cole-Kelly K, Frankel R, Buffone N, Lofton S, Wallace M, Goode L, Langdon L. 2004. Assessing competence in communication and interpersonal skills: The Kalamazoo II report. Acad Med 79(6):495–507.
Falchikov N. (2005). *Improving Assessment Through Student Involvement: Practical Solutions For Aiding Learning in Higher and Further Education:* (London, Routledge).

WORKSHOP W 09

Developing an interprofessional learning experience or program
(W 124 in programme)

Kiegaldie, D., Maddock, B.

Faculty of Medicine, Nursing and Health Sciences, Monash University

Description:
The workshop will provide delegates with the opportunity to explore the practical issues related to developing an interprofessional learning (IPL) experience or program.

Objectives:
The workshop will:
- Define key features of IPL
- Discuss the drivers and benefits of IPL;
- Examine the challenges of IPL;
- Describe examples of IPL activities that work;
- Develop participants' skills in developing an effective IPL experience.

Intended audience:
Health professional educators, course planners, administrators. Anyone interested in developing IPL experiences in any health professional education context.

Maximum number of participants: 20

WORKSHOP W 10

Using virtual worlds (Second Life) to teach clinical skills
(W 103 in programme)

McCallum, J., McElhinney, E.

Objectives:
1. Enhance the skills and broaden the perspectives of the attendees with regard to virtual worlds.
2. Provide virtual experience of three international worldwide projects using Second Life as a teaching strategy.
3. Experience hands on in-world participation.
4. Discuss and enhance knowledge of the potential for use of virtual worlds in developing clinical skills within health care.

Intended audience:
No experience required in using virtual worlds, max numbers of 20.

Background:
Second Life is an Internet based 3-D virtual world that is built and owned by its residents. It has the potential for innovative teaching of clinical skills and offers a range of new and exciting possibilities for educators and their students (Kamel Boulos et al 2007, Nelson & Blenkin 2007, Hansen 2008). Already there are a broad range of educational institutions and organisations exploring the use of virtual worlds for the delivery of a wide range of courses and educational events including distance and flexible education, presentations and discussions, historical recreations, multimedia and games design and language learning practice (kamel Boulos et al 2007, Nelson & Blenkin 2007, Hansen 2008).

However, like many new and innovative technologies it can be difficult for educators to visualise the potential use of virtual worlds for learning and teaching. This can be especially true when the technology is not developed for the sole purpose of educational use, as is with virtual worlds. Within the school of health at Caledonian University, the nursing department have used Second Life in undergraduate and postgraduate research to inform the teaching and learning strategy. Three studies (McCallum et al 2010) have been conducted providing many lessons learned which can be invaluable to the novice user of virtual worlds. This workshop will enable a 'show and tell' of several uses of virtual worlds for learning and teaching and will allow participants to control an avatar, talk via text or voice to an automated virtual patient, a real volunteer patient and other educators throughout the world.

Participants will also be able to control a heart sounds monitor attached to an avatars chest which will allow for demonstration of this monitor in teaching and learning.

References:
Hansen, M.M. (2008) Versitile, immersive, creative and dynamic virtual 3-D healthcare learning environments: a review of the literature. Journal of Medical Internet research. Vol. 10, No. 3. Available at URL: http://www.jmir.org/2008/3/e26/ (accessed 06/01/09)
Kamel Boulos, M.N., Hetherington, L., Wheeler, S. (2007) Second Life: an overview of the potential of 3-D virtual worlds in medical and health education.
McCallum, J., Ness, V. & Price, T. Exploring nursing students' decision-making skills whilst in a *Second Life* clinical simulation laboratory. Nurse Education Today. Accepted for print April 2010.
Nelson, D.L., & Blenkin, C. (1007) The power of on-line role-play simulations: technology in nursing education. International Journal of Nursing Education Scholarship. Vol. 4, No. 1. Pp1-12.

WORKSHOP W 11

Simulated patient training for patient focused simulations in procedural skills
(W 78 in programme)

Nestel, D., Tabak, D.

Patient focused simulation (PFS) describes scenario-based assessments with a professional actor (Simulated Patient - SP) in each encounter recreating the 'realistic unpredictability' of clinical practice[1,2]. The trainee is provided with an opportunity to rehearse the complex sets of skills required to perform procedural skills safely. The SP is combined 'seamlessly' with simulator kit in a quasi-realistic setting providing conditions that approximate real clinical practice. The presence of an SP taps into trainees' actual practice and enables feedback on subtle interpersonal interactions as well as dexterity skills associated with the technical elements of performing the procedure.

PFS resonates with contemporary thinking around simulation, workplace based assessment and contextualisation of healthcare learning. It offers a conceptual framework that moves beyond the simple repetition of technical elements of tasks addressing challenges of real practice.

The Integrated Procedural Performance Instrument (IPPI) consists of procedural skills scenarios, each combining an SP with a simulator or medical equipment. Scenarios are assessed from multiple perspectives - patient, trainee and clinical assessor [3-6]. Trainee-focused feedback is provided via an electronic assessment system. This multi-layered feedback is available online locating the locus of control with the trainee [7, 8].

Although background information is important for appreciating the context in which this work is situated, the focus of the workshop will be on preparing SPs to participate in PFS for procedural skills. A four-stage approach to training SPs will be illustrated and will require participation from attendees throughout.

After participating in the workshop, attendees will be able to:
1. Describe the preparation of SPs for PFS - role acquisition and feedback
2. Outline the concept of PFS, the IPPI and underpinning education theory
3. Consider the application of PFS in their own settings

Intended audience:
Delegates with an interest in simulation, SPs, procedural and communication skills training. Any level of experience is appropriate.

Maximum number of participants: 12

References:
[1]Kneebone R, Nestel D, Wetzel C, et al. The human face of simulation: patient-focused simulation training. *Academic Medicine*. Oct 2006;81(10):919-924.
[2]Kneebone R, Nestel D. Learning and teaching clinical procedures. In: Dornan SE, ed. *Medical Education: Theory and Practice:* Elsevier; 2010.
[3]Kneebone R, Nestel D, Yadollahi F, et al. Assessing procedural skills in context: Exploring the feasibility of an Integrated Procedural Performance Instrument (IPPI). *Medical Education*. Nov 2006;40(11):1105-1114.
[4]Kneebone R, Nestel D, Bello F, Darzi A. An Integrated Procedural Performance Instrument (IPPI) for learning and assessing procedural skills. *The Clinical Teacher*. 2008;5:45-48.
[5]Moulton C-a, Tabak D, Kneebone R, Nestel D, MacRae H, LeBlanc VR. Teaching communication skills using the integrated procedural performance instrument (IPPI): a randomized controlled trial. *American Journal of Surgery*. Jan 2009;197(1): 113-118.
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[7]Kneebone R, Nestel D. Learning clinical skills - the place of simulation and feedback. *The Clinical Teacher*. 2005;2(2):86-90.
[8]Nestel D, Bello F, Kneebone R, K. A, Darzi A. Remote assessment and learner-centred feedback using the Imperial College Feedback and Assessment System (ICFAS). *The Clinical Teacher*. 2008;5:88-92.

WORKSHOP W 12

The use and design of interactive scenarios for clinical decision making for the multidisciplinary team (W 96 in programme)

Nimmo, G., Morse, J.

In this interactive workshop facilitators and participants will first discuss the importance in relation to the aims and objective setting for each simulation scenario and the relevance of the questions being used for participant voting within the scenario.
Following this there will be a brief discussion and presentation on “ensuring the reality of the simulated scenario and the integration of the multidisciplinary team”. Whilst many of the participants will be well versed in simulation and the techniques required, for those new to the discipline basic and advanced techniques will be discussed and these will be integrated into the scenario being developed by the workshop.
The final section will be a practical incorporating the use of PRS voting system as well as the interpretation and dialogue surrounding the use of participant voting systems, using scenario elements developed in the workshop combined with pre- written scenario participants will then watch the scenario unfold and have hands on voting using PRS system and a facilitated discussion on the interpretation of voting results and the dialogue surrounding voting patterns.
The presenters have provided these interactive simulations scenarios at several symposiums for the Royal College of Physicians (Edinburgh) and with each one have refined the system to improve participant involvement. As a teaching tool we have found that these interactive scenarios are not only a good way for audience interaction but stimulation for debate around the core topic and wish to share our experiences with a wider and International cohort.

WORKSHOP W 13

Gender and cross-cultural competence training for clinical educators (W 135 in programme)

Nobelius, AM.

Monash University Australia

Background:
Emerging evidence of gender and cross-cultural difference in medical evidence is increasingly being integrated into medical curricula world-wide. In multicultural societies, clinical educators are now teaching increasingly diverse student populations, managing increasingly diverse patient populations and dealing with an increasing intake of international medical graduates as colleagues within their health systems. But it is not enough to simply embed the new evidence in the curriculum; clinical tutors must be supported with the appropriate training in order to teach this new evidence effectively. Clinical educators need training to support the teaching of diversity integrated curricula, to role model appropriate professional behaviour in their management of diverse patient needs and to establish and maintain effective communication and professional relationships with culturally diverse colleagues.

Objectives:
This workshop provides training in the current definitions and evidence in this area for both academic and clinical tutors engaged in medical and allied health education.
Using a public health-based social analysis framework, participants are asked to analyses critical incidents involving gender and cultural difference from their own experience.
Participants will identify contextual barriers that cause the problematic incidents, provide solutions to overcome those contextual barriers and identify enabler of change that already exist within their teaching and practice contexts. The analysis looks at the issues from the level of the individuals involved, the environments within which the incident occurred and the structural context which contributed to the incident.

Process:
Participants will be guided to identify barriers to, and enablers of change at all levels in order to define effective solutions that will lead to multilevel strategic change to manage these gender and diversity based problems. Each group’s analysis will then be presented to all participants. All participants will discuss completeness and feasibility of each analysis and solutions.

Audience:
The Audience should include anyone involved in the academic and clinical teaching of medicine and allied health subjects.

Participants and Facilities:
Ideally there should be 3-4 groups of at least 3 and up to 6 participants in each group (N=9-24). A room with data projector and screen, writing pads and pens are required. 3-4 desks arranged so that 3-6 participant can sit around each and easily discuss issues are required.

[1]García-Moreno, C. (2007). Integrating gender into the curricula for health professionals. Meeting Report. Department of Gender, Women and Health (GWH). World Health Organization. Geneva, WHO: 71.

WORKSHOP W 14

Faculty Development to Support Interactive Reflective Writing of Medical Students within a Clinical Skills Course - Two Frameworks for Fostering and Evaluating Reflective Capacity (W 182 in programme)

Reis, SP., Wald, HS., Borkan, JM., Anthony, D., Taylor, JS.

Reflection is considered an essential competency for clinical reasoning, patient-physician communication, and professionalism. The of reflective writing to augment reflective practice instruction is well documented; however, issues of effectiveness and valid assessment prevail. At the Alpert Medical School of Brown University in Providence, RI, USA, Doctoring is a two-year required preclinical course combining instruction and assessment in interviewing, physical examination, and professionalism. Students work in groups of eight with a physician and a behavioral science faculty pair to learn clinical practice skills. Students interview and perform physical exams on standardized patients and participate in group discussions. Outside of class, they write reflective narratives or “field notes” as well as clinical case write ups that are assessed by both of their small group faculty. A curriculum of students’ reflective writing with guided individualized feedback was implemented in 2006. Frameworks for enhancing the educational value of feedback (BEGAN) and a rubric to evaluate students’ reflective level (REFLECT) were developed. The BEGAN and REFLECT tools were incorporated into student and faculty guides in the Doctoring course and also the Family Medicine Clerkship.

Annual faculty development sessions to enhance educational impact of students’ reflective writing have been successfully implemented at our institution for 10-20 course faculty per session. Based on this paradigm, workshop participants will be offered a sample reflective narrative to practice both providing written feedback and formal evaluation. This will be followed by a brief discussion. Subsequently, the program and BEGAN will be introduced. Participants will re-craft feedback based on the BEGAN and discuss the exercise. Finally the REFLECT will be applied to the essay. A general discussion, including an invitation for participants to consider potential applications of some or all components of the program and evaluative tools in their own teaching and learning settings, will precede a wrap-up and session evaluation.

Objectives:
By the end of the workshop:

1. Participants will be familiar with the constructs of reflection, interactive reflective writing, and reflective practice.
2. Participants will have experienced the use of the Brown Educational Guide to Analysis of Narrative (BEGAN) and an associated evaluation rubric, Reflection Evaluation for Learners' Enhanced Competencies Tool (REFLECT).
3. Participants and faculty will consider the merits, limitations, and possible utility of presented curricula and evaluative tools for their own programs.

Intended Audience:
Undergraduate and graduate teachers and program directors, as well as those interested in the implementation of pedagogy to foster reflection through reflective writing and its evaluation in Medical Education (all experience levels welcome, no prerequisites, interest in reflective writing and evaluation helpful).

WORKSHOP W 15

From 'Hello' to 'G'day'. Developing an international strategy for collaboration and research in Clinical Skills Education (W 166 in programme)

Stirling, K., Lloyd, A., Ker, J.

This workshop is designed to demonstrate the benefits of collaboration between educational institutions to advance Clinical Skills Education and Practice. The collaborative work between the University of Dundee and Flinders Medical Centre in the creation of a ward simulation exercise to assess the performance of postgraduate doctors will be highlighted as an example of collaborative practice that has been shown to improve clinical skills education irrespective of geography. This collaborative work has shown that international institutions can deliver improvements in Clinical Skills Education that improves the current assessment of junior doctors within both institutions.
Participants in this workshop will identify an area of Clinical Skills education that is unique or reputable within their institution and devise a strategy for collaborative research with another institution using the following key aims:

1. What Clinical Skills educational initiative do you wish to use as a collaborative research project?
2. Is it feasible to translate this educational initiative or does it require adaptation?
3. How will both institutions implement this educational initiative?
4. How will both institutions evaluate this educational initiative?
5. How will both institutions disseminate this information?

The aim of this workshop is to broaden the current provision and context of Clinical Skills Education between educational institutions. Participants will identify common themes in the current delivery of Clinical Skills education between institutions and develop a research framework to evaluate the effect of this collaborative practice.

Participants will sign up to an International Clinical Skills research and collaboration group which will share the results of initiatives between members and work towards publishing the evidence of this work in selected journals.

Maximum number of participants: 20

Intended audience:
Experienced, pioneering Clinical Skills educators.

WORKSHOP W 16

Learning from Errors: Enabling Senior Students to Review Prescribing Errors with Service Staff (W 155 in programme)

Tully, V., Pryde, F., Davey, P.

Background:
For the last three years 20% of final year medical students' have investigated incidents reported on NHS Tayside Adverse Incident Management (AIM) system after receiving training in incident review during a Selected Study Component. This Academic Year all 160 5th year medical students are carrying out an incident review, in line with recommendations from the UK Patient Safety Education Study.[1] We are using incidents related to medicines as these are the commonest incidents reported in NHS Tayside that involve junior doctors and there is evidence that new graduates are inadequately trained in medical school. First the Skills for Health Report "Junior Doctors in the NHS: Preparing medical students for employment and post-graduate training" found that 65% of all concerns about new graduates related to prescribing skills and training.[2] Second a longitudinal study in the USA found a consistent "July spike" in fatal medication errors in hospitals, which was more pronounced in those with higher intake of new medical graduates.3

Intended Audience:
All staff who have an interest in medical/ interprofessional education particularly in relation to Patient Safety.
Workshop Objectives:
Participants will understand the key issues in:

- Finding and selecting incidents for investigation
- Structuring the incident review
- Providing support for staff and students
- Feedback to the Medical School and the Service from the review by students and staff
- Scaling up to core delivery

Number of workshop participants: 15

References:

WORKSHOP W17

Art and the art of medicine (W 87 in programme)

Zaharias, G.

Monash University

Medicine is considered to be a science because it is grounded in scientific knowledge and because of its use of technology. Indeed, evidence based medicine strives to push medicine more into the scientific domain by its emphasis on clinical research and scientific rigor. In the practice of Medicine, specific clinical skills are required in caring for the sick and in preventing disease. Because of this, medicine is also considered to be a craft. As with any craft, skills require practice and experience to become refined and in the case of medicine, in order to improve clinical judgement. Medicine however is more than the expert use of scientific knowledge and technical skills in a clinical setting. Clinical decision-making can be quite complex and so it has often been said that Medicine is an art. The art of Medicine however, is more than just making the right diagnosis and good bedside manner. Every doctor has personal qualities and attributes which find their expression in a very unique manner in the doctor-patient interaction and decision-making can happen quite differently from one doctor to another.

This workshop will use specific works of art to generate discussion and to explore the following questions:

How are clinical decisions made?
What is the art of medicine?
Can the art of medicine be taught?
How can doctors grow as individuals and as professionals?

Intended audience:
Clinicians and medical educators of all levels of experience. Anyone interested in clinical decision-making.

Number of participants: 30-40
This workshop has been previously presented in a conference for Medical Educators in Australia and was well received.

WORKSHOP W 18

Death and Dying
(W 85 in programme)

Zaharias, G.

Monash University

Death and dying is a difficult topic to discuss at the best of times. As doctors however, it is a subject that cannot be avoided because we are often in the situation of having to manage patients and their carers when death suddenly becomes a reality. Teaching medical students and doctors about death and dying can be quite challenging, particularly when it comes to some of the more difficult moral and ethical issues. This workshop will use art, poetry, music and film to promote discussion about the various issues that come into play when caring for terminally ill patients. The areas that the workshop will specifically touch on are:

- The emotional responses to grieving.
- The personal beliefs and values of the doctor, patient and carers and how these may influence the care of terminally ill patients.
- What constitutes appropriate care for individual patients and their carers.
- The ethical issues raised when caring for terminally ill patients including, ending active treatment, patient autonomy, dying with dignity and end of life planning.

Intended audience:
Anyone interested in issues around death and dying either as a learner (to understand the topic better) or as an educator (in order to look at alternate ways of teaching the topic).

Number of participants: 20-30
This workshop has been presented several times to doctors training to be General Practitioners and the workshop has been well received each time.

FULL ORAL FO 01

Quality indicators for the design and implementation of simulation experiences (FO 126 in programme)

Arthur, C., Levett-Jones, T., Kable, A.

The use of Human Patient Simulation Manikins (HPSM) is becoming common in undergraduate nursing education. Considerable nursing research has been undertaken to demonstrate the effectiveness of HPSM as a strategy for teaching clinical knowledge, psychomotor skills, communication, teamwork, and clinical reasoning. However very little research is available that evaluates the pedagogical approaches to the use of HPSM and the impact of different teaching approaches on quality teaching and learning.

A Delphi study was undertaken in which a panel of seventeen international experts rated statements regarding the use of simulation as indicators of quality teaching and learning. The Delphi was conducted in three rounds, with both statistical analysis of rating responses and content analysis of additional comments.

This presentation will outline the results of the study and present a list of Quality Indicator statements. Key points for discussion include the importance of integration of simulation throughout the curriculum, utilising learning objectives as the basis for all aspects of simulation design, quality student preparation and debriefing, and adequate faculty training.

Quality indicator statements generated in this study may be tested and used to evaluate individual schools' simulation programs. Further research is needed to fully evaluate the effectiveness of specific strategies identified.

FULL ORAL FO 02

Telesupervision – putting the e into clinical e-ducation (FO 52 in programme)

Chipchase, L., Moran, M., Hill, A., Dunwoodie, R., Theodoros, D., Russell, T.

The University of Queensland

Background:
Video conferencing has been used to provide telesupervision of health professional students. However, advances in information technology mean that telesupervision of student-client interactions can now be conducted directly in the clinical environment. This pilot study sought to determine the feasibility of telesupervision as an effective method of supervising clinical learning.

Method:
A total of 34 physiotherapy (PT), occupational therapy (OT) and speech pathology (SP) students participated having 2-3 telesupervision sessions instead of face to face supervision. PT and SP students participated in a 1:4 (educator: student) placement while OTs completed a role-emerging community-based placement in groups of four across four separate sites. Telesupervision for OTs involved mediated peer support and mentoring session with a university educator. Outcomes included a Supervisor Satisfaction Questionnaire and a questionnaire to evaluate the preservation of clinical learning.

Results:
Learning was facilitated with telesupervision in the 1:4 model (mean scores above 3.4/5). Satisfaction for SP and PT students was high with scores of 30 and 26/32 respectively while scores for OT students were lower (18/32).

Discussion:
Telesupervision at the 'bed-side' provides an effective method of clinical supervision with most students reporting high levels of satisfaction, and clinical learning being preserved. The model works well with1: 4 ratios and less well for larger groups.

FULL ORAL FO 03

Patient satisfaction in Norwegian intensive care nursing
(FO 65 in programme)

Johannessen, G., Eikeland, A., Stubberud, DG., Fagerstrøm, L.

Background:
Patient satisfaction is a part of the total care quality in intensive care nursing and is considered as a nurse-intensive outcome. Knowledge about how competence in intensive care nursing affects patient satisfaction in CICU is not well documented.

Aim:
The aim of this study is to describe patients' satisfaction with nursing care in three different Norwegian Coronary Intensive Care Units (CICU) and compare the results with estimated staff level of intensive clinical nurses.

Design and Method:
A descriptive and comparative design was employed and 150 patients at three CICUs were included. Patient satisfaction data was collected using the Intensive Nursing Care Quality Instrument, which included 59 items. The data was analyzed using descriptive statistics.

Results:
Patients expressed overall satisfaction with the nursing care, yet clear differences between the units. When comparing results between units, significant differences were found for 17 out of 46 questions.

Conclusions:
No clear connection was found between patient satisfaction and nurses' competence, clinical experience and skill-mix. More research is needed regarding how nursing staff and skill-mix can affect patient satisfaction.

References:
Mark B, Salyer J, Wan TTH. Professional nursing practice: impact on Organizational and Patient outcomes. Journal of Nursing administration. 2003; 22 (4): 224-234.
Person S D, Allison J. J, Kiefe C. I, Weaver M.T. Williams O.D, Centor R.M. Weissmann N.W. Nurse staffing and mortality for Medicare patients with acute myocardial infarction. Medical Care 2004; 42 (1): 4-12.
Tervo-Heikkinen T. Kvist R. Partanen P. Vehvilãinen-Julkunen K. Aalto P. Patient satisfaction as a positive Nursing outcome. Journal of Nursing Care Quality 2007; (23)1:58-65.
Whitman GR, Kim Y, Davidson LJ, Wolf GA, Wang SL. The impact of staffing on patient outcomes across specialty units JONA 2002; (32) 16: 633-639.

FULL ORAL FO 04

Supervision of medical students in Australia: how far away is excellence?
(FO125 in programme)

Jolly, BC., Peek, B., Bird, B., Sutton, B., Thomson, G., McGrath, B.

The extent to which health systems provide high quality supervision and feedback to medical students is under-researched. A partnership between agencies in South Australia and Victoria determined the extent of current clinical supervision for, and supervisory loads across, a wide spectrum of staff in these states' hospitals. Data was gathered using four related anonymous questionnaires adapted from a validated UK instrument[1] and targeted to different cohorts, including Senior Medical Staff (SMS) and medical students. We collected quantitative and qualitative responses about clinically based supervision, assessment and feedback from both supervisor and supervisee perspectives. Ethics approval was obtained.

This paper describes the reported experiences of approximately 300 medical students receiving clinical training in a wide range of settings. Students receive most of their supervision from vocational trainees. Patient safety, providing high standards of care and support of trainees are agreed upon as the most important purposes of supervision. Students report that factors supporting good supervision include supervisor commitment and supportive feedback. Students see the need for teaching skills as vital but this is not reflected in senior medical staff views. Data suggests Australian students receive significantly less supervision from consultants compared to their UK colleagues.

Reference:
[1]Grant J., Kilminster, S., Jolly, B. & Cottrell, D. (2000) JCEM Open University, UK.

FULL ORAL FO 05

Can patient simulation substitute for clinical time with real patients?
(FO 91 in programme)

Jull, G., Watson, K., Morris, N., Blackstock, F., Wright, A., McMeeken, J., Rivett, D., Jones, A., Haines, T., O'Connor, V., Peterson, R.

Education within high fidelity simulated learning environments (SLE) has increased substantially. The merits of this student centred learning are advocated, with growing research indicating that particular clinical skills are learnt effectively in SLEs. Educators are now being questioned whether SLEs could substitute for some clinical time with 'real' patients, without substantive evidence of equivalent outcomes in student clinical competencies. We conducted multi-institutional randomised controlled trials with physiotherapy students to investigate SLE versus traditional clinical immersion. Two SLE models were tested (i) a week in SLE before 3 weeks clinical immersion, (ii) two weeks of a 50:50 SLE/ real patient education within a 4 week clinical placement, in two fields, musculoskeletal and cardiorespiratory physiotherapy. Hypothesis: there is no significant difference in clinical competency between students educated in SLE versus full clinical immersion. Students (n=720) were recruited from seven participating universities (2009-10). Four single blind RCTs were conducted. The primary outcome was students' competence in management of a new and a follow-up patient, assessed at the end of the clinical placement by an independent examiner using a standard tool. Analysis revealed no differences in students' clinical competency scores in either field of practice, suggesting that high-fidelity SLEs could substitute for some clinical time.

Acknowledgement:
This research is supported by an Australian Research Council Linkage Grant.

FULL ORAL FO 06

Building a National Healthcare Simulation Program
(FO 196 in programme)

Riordan, R.

Health Workforce Australia

This presentation will describe work undertaken by Health Workforce Australia, the leading Australian health workforce agency, and resulted from the National Partnership Agreement on Hospital and Health Workforce Reform in 2008. This reform agenda includes a specific measure to expand the use of simulated learning environments to contribute to increased clinical training capacity. Through this measure, HWA is examining options to train healthcare professionals more efficiently and effectively, through the adoption of new and innovative training techniques.

The main objectives of the SLE Program are to:

Increase the use of simulated learning modalities in clinical training for entry level health professionals, postgraduates, VET sector and ongoing skills development training.

Optimise clinical training experiences through the use of simulation techniques to develop clinical skills and competencies required by health professionals.

Increase access to simulated learning techniques for students in regional, rural and remote settings.

The SLE Program has focussed on identification of aspects of curriculum most effectively delivered through learning using simulation techniques. This phase of the program aimed to seek national agreement by the Deans of the Professions (or equivalent) and accreditation bodies on aspects of the curriculum that could be delivered through simulated learning techniques. Twenty-four health professions have been included in this work.

Funding will be a combination of capital and recurrent and will support the expansion and enhancement of clinical training capacity using SLEs. This will include a special focus on training for simulation educators.

FULL ORAL FO 07

Peer versus tutor feedback on skill performance: perceptions of physiotherapy students
(FO 70 in programme)

Storr M., Paynter S., Maloney S.

First year physiotherapy students captured footage of themselves demonstrating performance of a practical skill and were randomly assigned to receive anonymous written feedback from either a 3rd peer or tutor. 1st year students completed an on-line questionnaire that evaluated their perceived value of novice and expert feedback whilst rating the value of the received written feedback. The existing perception was that tutor feedback was more valuable than peer feedback (p=0.002). However, when blinded to feedback source, students rated peer feedback more highly than tutor feedback (p=0.045). All feedback was rated as valuable. Analysis of free text responses showed peer feedback to be more personalised, positive and detailed in nature.

Informed by feedback, 1st year students repeated the task. 3rd year students reviewed the same student's submission and met to provide verbal feedback. 3rd year students reflected on the process, reviewing perceived barriers and facilitators to effective feedback covering themes such as method / structure, attitudes and awareness, difference between written and verbal and the receptiveness of first years to feedback. Following completion of 15 weeks of clinical placement, 3rd year students were surveyed about the quality of feedback they received from clinical educators and how they responded to feedback.

FULL ORAL FO 08

***Viva voce* clinical reasoning: A randomised controlled trial of reasoning skills for medical students in their first clinical year**
(FO 71 in programme)

Whyte, G., Paul, P., Gilbert, K., Russell, J.

Background:
Much literature on clinical reasoning focuses on cognitive processes of diagnostic reasoning, emphasising differences between novices and experts (e.g. Norman 2005). In contrast, we have developed a framework of articulated clinical reasoning (Gilbert & Whyte 2010) to conduct a randomised controlled trial investigating effects of training and separate measurement of clinical reasoning skills by OSCE.

Methodology:
Fifteen volunteer medical students in their first clinical year were trained in clinical reasoning communication, half before doing two simulated OSCE style communication tasks based on previous exam papers, and half afterwards. Training provided schematic models to organise clinical data and transcript models to articulate clinical reasoning. Each OSCE (history taking about a chronic cough and pathology of a thyroid nodule) was simultaneously assessed by two experienced examiners, one using a traditional score sheet, and the other scoring on clinical reasoning principles. Subjects were videotaped and the data transcribed.

Results/Discussion:
Preliminary statistical results indicate that in history taking, traditional score sheets mark students on knowledge, measured by mid-year EMQ results. Something statistically different from knowledge is scored by clinical reasoning criteria. Discourse analysis will be used to unpack and correlate student communication with performance in relation to clinical reasoning criteria: knowledge, logic, persuasion and justification.

References:
Gilbert, K. and Whyte, G. (accepted, 2010). The use of arguments in medicine: A model of reasoning for enhancing clinical communication. *Monash University Linguistics Papers (MULP)*, 7(2).

Norman, G. (2005). Research in clinical reasoning: Past history and current trends. *Medical Education*, 39(4), 418-427.
Towards Improving the Standards in Objective Structured Clinical Examinations – The Aga Khan University Experience.

SHORT ORAL O 01

The role of non-technical skills in health education
(O 171 in programme)

Aase, I.

Non-technical skills mean competencies within decision making, team-working and communication (Glavine & Maran 2003). Such skills constitute important parts of health professionals' abilities to cooperate in interdisciplinary teams, and should thus be integrated as a major theme in health education.

This paper focuses on the role of non-technical skills in health education and how students perceive the influence of such training.

The following research questions form the basis for the study:

1. What are the current non-technical skills emphasized in nursing education and medical training, and what are their commonalities and differences?
2. How do topics included in the nursing and medical curricula have an influence on the students' perceptions of their independent professional role, and their role in the inter-professional teamwork?

Data collection will be conducted in two phases: First, the educational programs of the 29 nursing educations and the 4 medical educations in Norway will be reviewed (using Internet and questionnaires) for contents regarding non-technical skills (themes included, amount of teaching and teaching methods). Second, focus group interviews will be conducted related to students' perception of the importance of knowledge within non-technical skills in their role as soon-to-be nurses or doctors. Topics in the focus group interviews are: Role ambiguity and confusion, hierarchical relationships, educational differences, gender issues and cultural barriers. Four focus group interviews will be done in separate nursing and medical student groups.

Data analysis of focus group interviews will be conducted by using a categorization technique according to analysis methods in Miles & Huberman (1994).Data analysis of educational programs will be conducted by measuring frequencies and topics related to non-technical skills. Ethical issues will be handled by reporting the study to Norwegian Social Science Data Services (NSD).

References:

Miles, M.B. & Huberman, M.1994. *Qualitative Data Analysis*. 2nd Ed. London; SAGE Publications.
Glavine & Maran. 2003. Integrating human factors into the medical curriculum. In Medical Education, Volume 37 Issue s1, Pages 59-64

SHORT ORAL O 02

Learning clinical skills: A video-observational study of bedside teaching encounters in primary care
(O 186 in programme)

Ajjawi, R[1]., Rees, CE[2]., Monrouxe, LV[3].

Background:
Bedside teaching includes any teaching in the company of patients, thus involving the 'learning triad' of patient, doctor *and* student.[1-4] Bedside teaching is considered essential for students' communication, physical examination and procedural skills, clinical reasoning and professionalism development.[1] To our knowledge, no research has explored clinical skills learning within bedside teaching encounters (BTEs).

Methods:
Seven BTEs in general practice (GP) in Australia were video or audiotaped followed by debrief interviews with participants and subsequently transcribed. Preliminary analysis by the three researchers focused on linguistic, paralinguistic and non-verbal communication around clinical skills learning.

Findings:
BTEs in GP settings offered numerous opportunities for clinical skills learning, including hand-washing, eliciting a history, physical examinations (e.g. auscultation, measuring blood pressure) and information finding. Students' involvement in the BTEs varied according to being given or creating their own opportunities for patient interaction, asking questions and/or practising their clinical skills. More subtle factors such as eye contact, physical positioning and possession of medical artefacts also served to include or exclude students from the triadic interaction.

Conclusion:
BTEs in general practice are rich environments for clinical skills learning. Linguistic, paralinguistic and non-verbal factors serve to include or exclude students from the triadic doctor-patient-student interaction.

References:

[1]Janicik RW, Fletcher KE. Teaching at the bedside: a new model. Medical Teacher 2003;25:127-130.
[2]Rees CE, Monrouxe LV. "Is it alright if I-um-we unbutton your pyjama top now?" Pronominal use in bedside teaching encounters. Communication & Medicine 2008;5:171-182.
[3]Monrouxe LV, Rees CE, Bradley P. The

construction of patients' involvement in hospital bedside teaching encounters. Qualitative Health Research 2009;19:918-930.
[4]Rees CE, Monrouxe LV. "I should be lucky ha ha ha ha": The construction of power, identity and gender through laughter within medical workplace learning encounters. Journal of Pragmatics 2010;42:3384-3399.

SHORT ORAL O 03

Error, reflection and safe behaviour: exploring a conceptual model at behavioural level in a simulated ward setting with final year medical students
(O 174 in programme)

Ambrose, L., Stirling, K., Ker, JS.

Keele University
University of Dundee

Background:
Understanding how medical students learn about patient safety is a key area in medical education. A series of studies have been conducted using Kirkpatrick's[1] levels to follow a cohort of students through the new curriculum in Dundee from 2006-2010. In the first year of the programme, a strong negative reaction was identified and explored through qualitative data from focus groups. The analysis identified a conceptual model which was tested using methods aligned to Kirkpatrick's levels as the students ascended the curriculum. The third study examined the relationship between error, safe behaviours and reflective thinking in final year students at level 3.

Methods:
This study used the ward simulation exercise which students undertake in year 5 as the basis for measuring safe behaviour and error. Participants completed a questionnaire to assess reflective thinking[3] and errors in the exercise were noted and categorised using Reason's framework[3]. Correlations coefficients were calculated to identify associations between errors, measures of safe behaviour and reflective thinking.

Results:
48 students participated in the study. Significant correlations were identified between safe behaviour, observed errors in simulated practice and reflective thinking.

Conclusion:
Over the course of 3 studies a conceptual model has been explored up to Kirkpatrick's level 3 to identify associations between error, safe behaviour and reflection.

References:
[1]Kirkpatrick, D L. (1959). *Evaluating Training Programs, 2nd ed*. San Francisco: Berrett Koehler
[2]Kember D, Leung D, Jones A, Yuen Loke A, Mckay J, Sinclair K et al. Development of a Questionnaire to Measure the Level of Reflective Thinking. Assessment & Evaluation in Higher Education, Vol. 25, No. 4, 2000
[3]Reason J. *Humar Error*. New York, NY: Cambridge University Press; 1990.

SHORT ORAL O 04

Using Kirkpatrick's levels to establish and test a conceptual model of error, reflection and safe behaviour in a cohort of medical students as they ascend a medical curriculum (O 173 in programme)

Ambrose, L., Stirling, K., Ker JS.

Keele University
University of Dundee

Background:
A series of studies have been conducted using Kirkpatrick's[1] levels to follow a cohort of students through the new curriculum in Dundee to explore a conceptual model of patient safety, error and reflection. Appropriate methods aligned to Kirkpatrick's levels to assess knowledge, attitudes and behaviours have been used as the students ascended the curriculum.

Methods:
Study 1 - Aligned to Kirkpatrick's level 1.
The aim of this study was to understand the student response to a programme of activities using patient safety tools introduced in 2006 using qualitative data.
Study 2- Aligned to Kirkpatrick's level 2.
This study tested the association between knowledge and attitudes of patient safety with reflective thinking. Students completed validated questionnaires which tested their reflective thinking and understanding and future intentions about patient safety[2, 3].
Study 3 - Aligned to Kirkpatrick's level 3.
A ward simulation exercise, which students undertake in year 5, was used as the basis for measuring safe behaviour and error. Participants completed a questionnaire to assess reflective thinking.
In studies 2 and 3 correlations coefficients were calculated to identify associations between knowledge, attitudes and behaviours and reflective thinking.

Results:
The three studies were completed between 2006 and 2010. Study 1 used qualitative data at level 1. In studies 2 and 3 significant correlations were identified at levels 2 and 3.

Conclusion:
By using the approach described here a conceptual model has been identified and explored over time using Kirkpatrick's framework.

References:
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[2]Kember D, Leung D, Jones A, Yuen Loke A, McKay J, Sinclair K et al. Development of a Questionnaire to Measure the Level of Reflective Thinking. Assessment & Evaluation in Higher Education, Vol. 25, No. 4, 2000
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SHORT ORAL O 05

Critical Comparative Nursing Assessment: Explaining how clinical competence is assessed in the workplace (O 131 in programme)

Andersen, P.

University of Wollongong, Australia

The New Zealand Health Professional Competence Assurance Act was introduced in 2003. This has had wide reaching implications for the education and assessment of competence for all health professions. This presentation reports a Grounded Theory study undertaken to discover how practice competence is determined for completing Bachelor of Nursing students in New Zealand. Focus group interviews with Nurse Educators and Clinicians were conducted. In keeping with Grounded Theory the process of constant comparative analysis was used to analyse data and discover the basic social process. This revealed that comparative assessment was central to determining competence. Critical Comparative Nursing Assessment (CCNA) is a Grounded Theory explaining how decisions about practice competence are formulated. This involves a process of gathering, benchmarking, using comparative decision making to weigh assessment outcomes, and validation of professional judgement. While this study was initially designed to investigate how student nurse competence was assessed, the emergent theory has potential relevance to assessment in other health professions. This presentation will be of interest to people involved in the assessment of clinical skills and competence in practice, and clinical decision making.

References:

Health Practitioners Competence Assurance Act 2003. (2003). *New Zealand Legislation: Acts (Nd)*. No.48. Retrieved November 27 2010 from http://www.legislation.govt.nz/act/results.aspx?search=qs_act_health+practitioners+competence+assurance

SHORT ORAL O 06

The impact of professionalism on the assessment of clinical competence (O 130 in programme)

Andersen, P.

University of Wollongong, Australia

Critical Comparative Nursing Assessment (CCNA) is a Grounded Theory explaining how decisions about practice competence are formulated. This theory emerged as an outcome of research undertaken to discover how practice competence was determined for completing Bachelor of Nursing students. The study revealed that comparative assessment was central to determining competence. This involves a process of gathering, benchmarking, using comparative decision making to weigh assessment outcomes, and validation of professional judgement. While presenting a summary of the theory, this presentation will focus on the impact of professionalism on the assessment of clinical competence. This will highlight the influence of subjective information and the impact this may have on competency assessment outcomes. The presentation will explore how professional judgement and processes surrounding the assessment of competence may be managed to avoid compromising the assessment process. While this study was initially designed to investigate how student nurse competence was assessed, results have relevance to the assessment of students in other health professions. This presentation will be of interest to people involved in the assessment of clinical skills and competence in practice, and professional decision making.

SHORT ORAL O 07

Evolution of reciprocal teaching and learning: Medical students and simulated patients training in partnership (O 116 in programme)

Ashcroft, E., Potter, I., Bushnell, J.

Problem:
Training simulated patients effectively is vital for the success of the patient volunteer programme in the Graduate School of Medicine at the University of Wollongong. Globally, simulated patients play an essential role in contemporary medical education. Yet, there is a significant gap in the research literature regarding their training and the impact of their feedback on student learning (Cleland et al., 2009).

Action:
In 2010, our 2nd and 3rd year medical students replicated realistic interview situations as part of our simulated patient training. This intervention allowed patient volunteers to give feedback but also to receive feedback on their feedback giving skills from students. During these interactions, a strong sense of reciprocal teaching and learning between the incumbent simulated patients and the participating students emerged. Based on these observations, we conducted focus group interviews with both parties.

Evaluation findings:
Participants reported an enriched educational experience and better understanding of each other's role in the teaching relationship. Volunteers commented that the approach has given them a better comprehension of the expectations placed upon them by students. Students appreciated the opportunity to support volunteers in what they see as a vital aspect of their medical training.

Reference:
Cleland, JA, Abe, K and Rethans, J 2009. The Use of simulated patients in medical education: AMEE guide No 42, *Medical Teacher*, 31, pp 477-486.

SHORT ORAL O 08

Why do medical students volunteer to train simulated patients? A qualitative evaluation of motivations and incentives (O 120 in programme)

Ashcroft, E., Potter, I., Bushnell, J.

Background:
The willingness to actively volunteer is an expected trait of medical students. Their compliance to participate in teaching and learning interventions is well described in the medical education literature (Buckley & Zamora, 2007; Hudson & Tonkin, 2008). The purpose of this investigation is to determine whether medical students' motivations to volunteer are congruent with motivational drives of other community members.

Methods:
We recruited eighteen (18) medical students, who contributed to the 2010 patient volunteer training as interview partners. One focus of their involvement was to develop feedback skills in newly recruited simulated patients. Ten (10) of these students participated in our audio-recorded focus group interviews.

Results:
A thematic analysis of the transcripts revealed three main themes emerging from the data. The main motives for participating are primarily reciprocity, gaining an additional opportunity for own skill development and the associated social interaction with simulated patients and peers. The supply of food and refreshments constituted a strong incentive, whilst unsuitable timing of the training session presented the major barrier.

Conclusion:
Medical students are motivated to be involved in the training of simulated patients provided timetabling of the activity recognises their needs and refreshments are provided.

References:
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Hudson, JN & Tonkin, AL 200. Clinical skills education: outcomes of relationships between junior medical students, senior peers and simulated patients. *Medical Education*, 42, 9, pp 901 -908.

SHORT ORAL O 09

Adopting the World Health Organization Patient Safety Curriculum into early preclinical training of medical students
(O 192 in programme)

Basham, L., D'Souza, K., Axtens, M., Whyte, R.

School of Medicine, Deakin University, Victoria, Australia

Background:
Patient Safety as a discipline is becoming as complex as the health care system practices that generated the need for it. The WHO Patient Safety Curriculum Guide was produced to facilitate course development. Adopting this Curriculum requires an analysis of pre-existing medical curricula, and rapid integration into teaching to maximise both the impact on students, and the uptake of the Safety Curriculum by teaching staff.

Purpose:
Our medical school has evaluated and integrated the WHO Guide into our curriculum, with strong emphasis on patient safety commencing in the preclinical years. Our aim is to teach patient safety early and well, in order to decrease adverse patient events in the future.

Methods:
An audit of the current Clinical Skills curriculum was performed, and areas deficient in recommendations by the WHO identified. Scenario-based teaching was designed to address these deficiencies during Clinical Skills tutorials, to empower Clinical Skills teachers and enable students to recognise that Patient Safety education integrates seamlessly with all teaching currently received. The scenarios emphasised: the discipline of patient safety; the way errors in our health system occur (contributing factors at the human/organisational/cultural level); and promoting commitment of the medical community to reduce the potential for errors, with strategies to manage errors when they occur.

Conclusions:
Medical culture is evolving rapidly in response to demographic, financial, political and disease changes. Medical student teaching, therefore, needs to respond quickly to such evolution in order to prepare current students for their role in the workplace.

References:
World Health Organization Patient Safety Curriculum Guide for Medical Schools. http://www.who.int/patientsafety/activities/technical/medical_curriculum/en/index.html
World Health Organization Patient Safety Curriculum Guide for Medical Schools, Summary http://www.who.int/entity/patientsafety/information_centre/documents/who_ps_curriculumsummary
Politics and publishing: the Quality in Australian Health Care Study "In medical research, the real news is the evidence, not the public claim" MJA 1995; 163: 453-454
Runciman B, Merry A, Walton M. Safety and Ethics in Health Care: A guide to getting it right. 1 ed. London: Ashgate Publishers, 2007.

SHORT ORAL O 10

The Structured Communication Adolescent Guide and its Use in the Continuum of Medical Education (O 181 in programme)

Blake, KD., Mann, K., MacCuspie, J., MacDonald, M.

Background:
Interviewing adolescent patients requires particular skills. The structured communication adolescent guide (SCAG) is a 29-point checklist which obtains feedback from adolescents. It has been developed over ten years as a teaching, learning, and assessment tool for medical students, residents, and physicians. The goal is to improve feedback and confidence levels for learners and physicians on their adolescent interviewing skills. The SCAG was developed after a randomized control trial demonstrated that "structured feedback" significantly improved medical students' interviewing skills with adolescent standardized patients.[1] When medical students received feedback from adolescent standardized patients using the SCAG, their confidence levels regarding adolescent interviewing significantly improved.

Results:
The instrument has demonstrated both reliability ($r = 0.93$)[2], and validity when used by trained adolescent standardized patients to assess medical student and resident interviewing skills, and by untrained adolescents ($r = 0.85$)[3], within a school based pilot study. The SCAG effectively discriminates undergraduate from postgraduate learners. [2,3]

Conclusion:
The SCAG is a reliable teaching, learning, and assessment tool for adolescent interviewing skills, and can be scored by both trained and untrained adolescents. It can be used across a variety of settings and learners.

References:
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[3]Kutcher, M., Mann, K., Maccuspie, J., Wakefield, S., Murphy, J., Blake, KD. Reliability of the Structured Communication Adolescent Guide with Untrained Adolescents. The Internet Journal of Medical Education. 2010. Vol. 1, No. 2.

SHORT ORAL O 11

Using e-learning to develop aseptic technique: patterns of use, influence on skill attainment and attitudes of nursing students (O 151 in programme)

Bloomfield, J., Cornish, J.

Background:
The increased heterogeneity of nursing students highlights the need for innovative approaches to clinical skills education (Meehan-Andrews 2009). Despite the growing use of e-learning in higher education and mounting evidence of its effectiveness in clinical skills education (Bloomfield et al. 2008) little is known about how nursing students utilise e-learning to supplement conventional teaching strategies. Consideration of these factors is imperative given the investment required to develop e-learning materials and the need to educate nurses, using best methods.

Aim:
To explore how nursing students utilised an e-learning resource to develop skills in aseptic technique in relation to patterns of use, the influence on skills performance and attitudes of students.

Design/Method:
A descriptive survey was conducted with a convenience sample of pre-registration first year nursing students (n= 188). To supplement a classroom-based teaching session, participants had access to an optional interactive e-learning resource. Server access data were analysed to establish patterns of e-learning use including number of log-ins and frequency of access. Pass and failure rates at an OSCE station were used as an indicator of skill acquisition and attitudes towards the e-learning resource were explored using a semi-structured questionnaire.

Results/Discussion:
Data analysis is currently in progress and will be undertaken using descriptive statistics and thematic analysis. It is anticipated that study findings will provide important insights for the development of e-learning and an understanding of how it can best be used to support clinical skills education in nursing.

References:
Bloomfield J, While A and Roberts J (2008) Using Computer Assisted Learning for clinical skills education in nursing: Integrative review. Journal of Advanced Nursing. 63(3): 222-235
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SHORT ORAL O 12

Clinical Skills Education for Pre-Registration Nursing Students: Meeting the diverse needs of learners using a multi-modal approach (O 95 in programme)

Bloomfield, J., Cornish, J., Pegram, A.

Widening access to higher education, the promotion of equality and diversity and increasing numbers of mature-aged students has led to diversity among nursing students around the world (O'Brien et al. 2009; Meehan-Andrews 2008). In the context of the fitness for practice debate, the need for effective clinical skills education that accommodates different learning needs is essential (Fleming et al. 2010).

This paper reports the development of a new clinical skills module at a UK university. Aimed at first year postgraduate nursing students undertaking a pre-registration programme, the module adopted a multi-modal approach comprising a range of teaching, learning and assessment strategies to maximise comprehensiveness, complementarity and flexibility.

Assessment also comprised multiple elements including formative skills assessment, written skills accounts exploring the evidence-base and reflection on practice. This paper reports module evaluations and identifies strategies deemed most and least useful for learning from a student perspective.

Issues around clinical skills education are of global relevance (Borneuf and Haigh 2010) and the information presented contributes to the ongoing discourse on approaches to clinical skills teaching in healthcare by offering insights to inform the future planning and delivery of clinical skills education.

References:

Borneuf AM and Haigh C (2010) The who and where of clinical skills teaching: a review from the UK perspective. Nurse Education Today. 30 (2): 197-201.
Fleming S and Mckee G (2010) Undergraduate nursing students' learning styles: A longitudinal study. Nurse Education Today. IN PRESS doi:10.1016/j.nedt.2010.08.005
Meehan-Andrews (2009) Teaching mode efficiency and learning preferences of first year nursing students. Nurse Education Today.29, 24–32.
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SHORT ORAL O 13

Clinical Skills, simulation or practice – what is the difference? (O 77 in programme)

Brown, RA.

When does the teaching of clinical skills stop and simulation start? When does the merging of complex skills become a 'competence'? When do developing clinicians merge the skills into competencies that can be assessed?

The answers to these questions are not clear in practitioner's minds when they assess students. Many assessors of competence find defining 'competency' difficult, however clinicians and faculty are judging if the students on their programmes are competent. As part of a national study eleven (modified) nominal groups were undertaken to explore how assessors of nursing students 'assessed' their competence against the nationally accredited standards (ANMC 2006). As Sportsman (2010) indicates 'issues related to competence are important to individual nurses, nurse educators and administrators' (p.140). The competence of practitioners in the field in terms of preparation also impacts on inter-rater reliability. What are the challenges; the first is to acknowledge the complexity of nursing competence, that it must be more than the sum of the parts; the framework through which competence is being assessed, is this in clinical practice or in the simulated learning environment? Finally how does practice based learning and teaching differ from SLE learning and teaching? This paper will present some of the findings from the ALTC study; will explore the current literature and finally examine a number of strategies and approaches including underpinning learning theories (Kaakinen & Arwood 2009).

References:

Australian Nursing and Midwifery Council 2006 *National Competency Standards for the Registered Nurse*, ANMC: Canberra.
Borneuf, A.M., Haigh, C. 2010. 'The who and the where of clinical skills teaching: A review from the UK perspective', in Nurse Education Today, 30(2010);197-201.
Kaakinen, J., Arwood, E. 2009. Systematic Review of Nursing Simulation Literature for Use of Learning Theory, International Journal of Nursing Scholarship, Vol. 6; Issue 1, Article16;pp 1-20.
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SHORT ORAL O 14

Competency assessment using a standardised tool across nursing programmes in Australia (O 76 in programme)

Brown, RA., Crookes, PA.

In Australia, as in most countries, assessing nursing students' competence to practice in the clinical setting is challenging. This is based on the fact that although the Australian Nursing and Midwifery Councils National Competency Standards for the Registered Nurse (ANMC 2006) have been in operation in various guises since the early 90's (ANRAC 1990, ANCI 2001, ANC 2002), each pre-registration nursing programme in Australia (there are 39) has its own competency assessment tool, its own range of skills taught and a number of different support mechanisms for students in clinical practice.

This Australian Learning and Teaching Council (ALTC) project commenced in 2007 and concluded in March 2010. The study used three main approaches 1) a documentary analysis of universities curriculum (n=38); 2) nominal group work was used to explore assessment strategies and approaches and finally; 3) Delphi rounds were undertaken to clarify the skills areas. Finally a nursing competency assessment tool for the use across Australian universities was produced. This presentation will outline the utility of tools in practice and the research processes.

The ongoing work is the subject of a proposal for funding through the ALTCs Priority Project stream and Health Workforce Australia. There is significant interest across the sector both in Australia and internationally about the roll out and bench marking of the tool.

References:

Australian Nursing Council Incorporated (ANCI): 2001, Code of Professional Conduct for Nurses in Australia. Australian Nursing Council Incorporated, Canberra

Australian Nursing Council (2002) Principles for the Assesssment of National Competency Standards for Registered and Enrolled Nurses. ANMC: Canberra

Australian Nursing and Midwifery Council 2006: National Competency Standards for the Registered Nurse, ANMC: Canberra

Australian Nurse Registering Authorities Conference (ANRAC),: 1990. Nursing Competencies Assessment Project Vol 1 – The Project Report, 1990, Vol 2; 1990, Vol 3. Assessment and Evaluation Research Unit, Education Department, University of Queensland.

SHORT ORAL O 15

Clinical teaching skills for medical students: Our future educators

Burgess, A., Black, K., Chapman, R., Mellis, C.
(O 06 in programme)

Introduction:
In 2010, Sydney Medcial School conducted a "Teaching on the Run" program for students. The program provides theoretical background and active participation in clinical skills teaching and assessment.

Aims:
To examine the effectiveness of the program by assessing participants' perceived acquisition of teaching and assessment skills.

Methods:
53 students were invited, and 17 students took part in the program. Quantitative data were collected by pre-program and post-program questionnaire. Paired t test was used to compare the matched responses. Qualitative data were collected by focus group. Qualitative data analysis procedures were used to code and identify themes. Ethics approval was obtained.

Results:
Pre and post surveys were collected from 15 students (88%). Seven students participated in the focus group.
The program substantially increased students' perceived ability to apply basic educational principles, design and implement learning activities, but not to assess peers. Other hidden benefits were identified.

Conclusion:
The "Teaching on the Run" program is successful in providing students with a basis for developing and implementing teaching and assessment strategies. In providing clinical teacher training to senior medical students, they can effectively contribute to the teaching of peers, and are better equipped to enter the medical workforce, where teaching and peer review is a requirement.

References:

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Perkins, GD, Hulme, J, Bion, JF. Peer led resuscitation training for healthcare students: a randomised controlled study. Intensive Care Med.

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SHORT ORAL O 16

Evaluations of peer assessment in long case clinical examinations (O 20 in programme)

Burgess, A., Black, K., Roberts, C., Chapman, R., Mellis, C.

Introduction:
In stage 3 of the medical program, Sydney Medical School, students are required to sit a formative long case examination. Peer students act as co-examiners, together with an academic examiner.

Aims:
To investigate the efficacy of students as examiners based on

- Student perception of competence in their own long case examinations.
- Agreement between student and academic examiner marking.

Methods:
Students (n=97) were randomly allocated to co-examine their peers.
Data was collected as follows:

- Questionnaires were distributed to all student co-examiners (n=97).
- Four Focus groups were held (convenience sample, n=23).
- Marking sheets of academic and student examiners were compared to assess agreement.

Results:

- Questionnaire response rate 95% (n=92).
- Focus groups (n=23).
- Marking sheets: 92% were analysed (n=89).
- Acting as a student co-examiner was useful in preparing students for their own long case examinations.
- Students had difficulty assessing and giving feedback to peers.
- Student examiners consistently marked higher than academics across all marking domains, however, these differences were not statistically significant.

Conclusions:

- Acting as a peer examiner is a useful learning activity for students.
- Students need further training in how to provide feedback.
- Given the level of agreement between student examiners and academic examiners, students can act as peer examiners in formative long cases.

References:
Bucknall, V., Sobic, E.M., Wood, H.L., Howlett, S.C., Taylor, R., Perkins, G.D. (2008), Peer assessment of resuscitation skills. Resuscitation. 2008 May;77(2):211-5. Epub2008 Feb 20.
English, R., Brookes, S.T., Avery, K., Blazeby, J.M., Ben-Shlomo, Y. (2006), The effectiveness and reliability of peer marking in first year medical students. Med Educ. 2006. Oct;40 (10):965-72.
Jones, R., Higgs, R., De Angelis, C., Prideaux,D. (2001). Changing face of medical curricula. Lancet 357:699-703.
Morton J.B. and Macbeth, W.A. (1977), Correlations between staff, peer and self assessments of fourth-year students in surgery. Med Educ 1977 May;11(3):167-70.

SHORT ORAL O 17

Developing more speech and language therapy student dysphagia experiences and placements in partnership with practising clinicians (O 14 in programme)

Cocks, N., Harding, C.

Universities who train speech and language therapists (SLTs) in the UK have taken ever increasing numbers of student learners. As a result of this there are increased demands on clinical placements in the drive to enable all students to gain substantial clinical experience before graduating. This presents an ongoing challenge for both teaching institutions and clinical settings to ensure that there are adequate placements for student SLTs.

One method of meeting this challenge was to consider a specific clinical area (dysphagia), where students were not traditionally placed and evaluate the impact of a short intensive placement on students' knowledge and confidence.

Five-day placements took place at a number of different sites. The project involved a structured approach to self-directed learning as well as opportunities for practical experience within a specialist field. Materials were produced to support this opportunity for learning (workbook, structured timetable and self-directed tasks). Student's knowledge and confidence were compared pre- and post- placement. Qualitative feedback was also collected from both students and clinical educators.

Following the placement students increased in their confidence and knowledge. Clinicians found the structured approach to learning, and an opportunity to focus on a complex area highly beneficial for structuring their teaching.

SHORT ORAL O 18

Continuity: An integral part of clinical skills education
(O 38 in programme)

Conradie, H., Campbell, D., Greenhill, J.

This paper will present the findings of a research project involving a comparative evaluation of full-year longitudinal integrated clinical clerkships in rural medical undergraduate programs at Flinders University and Monash University in Australia. The programs have been running for over 10 years and over 5 years respectively. Both programs involve placement of students for a full academic year in rural general practice, with the majority of clinical skills learning occurring in this setting.

An external evaluation of these programs was conducted in early 2010. Two independent researchers visited the rural sites and interviewed local clinicians, program staff, community stakeholders and students. The findings of these interviews were collated and analysed for common themes.

The paper will present outcomes and findings of the study related to aspects of continuity as an important ingredient of clinical skills education.

SHORT ORAL O 19

Student nurse's perceptions of the impact of a simulated clinical environment on their learning experience and transfer of learning
(O 41 in programme)

Crowley, MA.

School of Health, Nursing & Midwifery, University of West Scotland.

The move from apprenticeship style nurse training to Higher Education Institutes (HEI) has resulted in graduates who have equitable exposure to theory and practice. However, changes in healthcare provision, coupled with increasing numbers of students have resulted in less opportunity to practice clinical skills in practice placements (Scholes et al 2004). Simulation has been suggested as a way to address this shortfall (NMC 2007), allowing students to practice a range of key clinical skills in a safe and unthreatening environment, which puts their learning needs first. Research has established that simulation is effective in helping in the acquisition of skills (Alinier et al 2006).

The aim of this study is the explore the nature of the student nurse's experiences of learning within a simulated clinical environment, in relation to the development of clinical skills within the psychomotor, cognitive and affective domains and the impact this has on the transfer of skills to practice.

Methods:
A purposive sample of 12 nursing students interviewed over a two-year period, from entry into the adult branch to registration.

During the initial five-week module in Year two, students were taught clinical skills within the simulated environment for the equivalent of one day per week. Preparation for the simulation sessions included lectures; pre-simulation reading; demonstration of skills; supervision and feedback from lecturers.

Summary of Progress:
Initial findings were generally encouraging - despite some initial discomfort, the majority of participants' valued simulation. Many had no previous experience of clinical environment's and reported feeling more confident going into practicum.

Concerns included the fear of looking 'silly' in front of staff and wanting to fit in so simulation prepared them. They knew what to expect and got a 'head start' – "I feel shaped and ready to go out"

Simulation would appear to take learning from the realms of imagination to the realms of reality and participants valued the 'guilt free' aspect – "you can do it wrong and get a second chance".

Learning in a simulated environment seemed to suit the preferred learning style of many of the participants. However, one recurring theme evident throughout the data is that of engagement. Many commented on how communication is difficult and some felt inhibited when in the simulated environment – "you start fumbling instead of focusing and you end up getting lost somehow" and another participant commented "I am terrified walking into the sim room…I would literally freeze . . . I feel silly with other students watching me, I hate it".

Those participants able to fully engage with the technology appeared to get the most from it.

Further exploration into the concept of student engagement within clinical simulation is currently underway.

References:

Alinier G, Hunt W, Gordon R & Harwood C. (2006) Effectiveness of intermediate-fidelity simulation training technology in undergraduate nursing education. Journal of Advanced Nursing. 54 (3) 359-369

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SHORT ORAL O 20

Pandoras Box: Simulation, reflection, cognitive errors and clinical reasoning (O 45 in programme)

Dempsey, J., Levett-Jones, T., Hoffman, K., Bourgeois, S., Jeong, S., Hunter, S., Hickey, N., Norton, C., Noble, D., Arthur, C., Roche, J., Lapking, S., Jeffery, K., Kenny, R.

Clinical reasoning (CR) is an essential skill for nurses which has a positive impact on patient outcomes1 and prevents "failure to rescue" situations1. CR is the process by which clinicians collect cues, process information, come to an understanding of patient problems, plan and implement interventions, evaluate outcomes, and reflect on and learn from the process[2]. A component of CR is reflection, a purposeful activity dependent on motivation and moral agency that leads to action, improvement of practice and greater personal satisfaction[3]. This paper presents the findings of a study where educational initiatives include an interactive computerised decision support framework (ICDSF) to teach CR and enhance reflection[4], and simulation and debriefing to assess CR and reflective skills. Included were reflection on cognitive errors experienced in clinical placement and de-biasing strategies that addressed the error.

Learning from reflection is not automatic and requires a deeper understanding of how reflection contributes to the repertoire of an effective clinician. This study reveals that reflectivity in these students was superficial and unlikely to influence future practice. Like CR, reflection is a learned skill that must become a resolute and persistent part of curricula. The study highlights recommendations for how reflectivity may be enhanced in students.

References:

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SHORT ORAL O 21

The use of an adapted Mini CEX to assess nursing students' developing clinical competence in a new Bachelor of Nursing Degree; data on reliability, validity and staff and student acceptability
(O 123 in programme)

English, L., Jolly, BC., Koutoukidis, G., Kiegaldie, D.

Assessment of professional practice within Australian undergraduate nursing programs entails designing tools that assess reliably against a broad set of national competency standards. In 2009 Holmesglen Institute and Monash University embarked on a three-year research project to develop an assessment framework for implementation within a new Bachelor of Nursing program. The aim was to develop valid and reliable tools that were: innovative; user-friendly; adaptable to multiple clinical contexts and facilitated integrated learning and assessment.

The framework comprised four key components, one of which was the Mini Health Assessment **(***MHA***)**, based on the Mini-CEX used in post- and increasingly in undergraduate medical education. Using qualitative and quantitative methods (content-analysed interviews and focus groups with key stakeholders, and correlational analyses of assessment data respectively) the MHA produced promising results in 2009, but based on a small cohort.[1] A modified tool was implemented in the second semester during a four-week acute care clinical placement and the tool was enlarged to cover additional competencies covered in Year 2 of the course.

The data from Years' 1 and 2 afforded more extensive (generalisability) analyses. This paper will report these findings and indicate lessons learned from the first two years of the project.

Reference:
[1]L English, G Koutoukidis, D Kiegaldie, BC Jolly. The use of Mini-CEX in a new nursing programme Paper presented at the 14th Ottawa International Conference on Clinical Competence. Miami, May 2010.

SHORT ORAL O 22

Novel and Integrated Clinical Examination Systems (NOV.I.C.E.S) – An integrated clinical skills curriculum (O 32 in programme)

Feather, A.

The Clinical Skills Group, Barts and the London School of Medicine and Dentistry

At Barts and The London School of Medicine and Dentistry we have recently revisited and augmented our PBL curriculum (Curriculum 08). As part of this augmentation, we in clinical skills were asked to review and redesign our curriculum, with special focus on the early phase of the course.

In this presentation we will describe the development of a new, innovative clinical skills curriculum (NOV.I.C.E.S), integrated with the supporting basic medical sciences. 'NOVICES' is a three-phase spiral skills curriculum that takes the learner from absolute novice to competency in all the fundamental examination techniques required of a practising clinician. The first phase of the curriculum aims to build a strong integrated foundation for the learners' clinical skills, encouraging them to integrate and apply the knowledge they acquire in other areas of the course, whilst supporting the clinical aspects of the PBL cases. As part of the development we have produced a wealth of teaching and learning materials that we found were missing from the available books and web based materials. Contextualising the anatomy and other basic medical sciences wherever possible has encouraged a more practical utilisation of the knowledge being acquired in other areas, reflected in the teaching and end of year summative assessment.

In our presentation we will describe:

(a) The development of the curriculum including the learning outcomes and the unique learning and tutor support materials.
(b) The positive affects it has had upon student learning, tutor expectations of the learners, and the profile of clinical skills within the early phase of the course.
(c) The issues that have arisen as we have rolled out the programme
(d) Practical solutions to the problems we have encountered.

This presentation would be of interest to anyone involved in clinical skills within the early phase of the course.

SHORT ORAL O 23

Simulation for improving Health of Young people through Nurse Education (SHYNE); Using simulation to enhance skills development in child and mental health pre-registration nursing students (O 139 in programme)

Felton, A., Holliday, L., Langmack, G., Ritchie, D.

Nurses have been criticised for lacking the range of skills needed to effectively address the physical and psychological needs of young people (Ramritu et al 2002, DH 2006). In order to develop some of these skills joint simulation sessions between pre-registration child and mental health nursing students have been designed and delivered. A youth theatre company were used to play adolescent characters in the simulation. Debriefing, with the inclusion of the actors, provided the main focus for student learning.

To evaluate the effectiveness of using simulation in this way, open ended questionnaires and a focus group were undertaken with the students. Findings suggested that whereas simulation is considered a useful tool in the literature for clinical skills development (Bambini et al 2009), our students felt that learning had been constrained to their communication, and they had not benefited in enhancing their skills in caring for the physical and psychological needs of adolescents with emotional distress. However, the methodology adopted lacked any direct measurement of knowledge, skills or attitudes, had a small sample size and was undertaken immediately post simulation. Therefore, further study is required in order to evaluate the effectiveness of simulation used to teach a range of nursing skills.

References:

Bambini D, Washburn J, Perkins R (2009) Outcomes of Clinical Simulation for Novice Nursing Students: Communication, Confidence, Clinical Judgement *Nursing Education Perspectives* 30(2) 79-82

Department of Health (2006*) From Values to Action: Chief Nursing Officers Review of Mental Health Nursing.* Crown Copyright. London

Ramritu, P, Courtney, M., Stanley, T and Finlayson, K. (2002). Experiences of the generalist nurse caring for adolescents with mental health problems. *Journal of Child Health Care.* 6(4): pp 229-44.

SHORT ORAL O 24

Analysis of an integrated higher consultation skills pilot programme via questionnaire, focus group and parallel controlled diagnostic inventory (O 102 in programme)

Gay, SP., Bartlett, MH., McKinley, RK.

Keele University School of Medicine

Introduction:
Keele has developed an integrated Higher Consultation Skills programme based on the work of Croskerry[1], Norman[2], Eva[3] and other contributors to our understanding of diagnostic thinking and consultation dynamics. Course content includes clinical reasoning, error and bias, and combines classroom teaching with workplace based consultation experience and formative assessment.

Methods:
We piloted the instructional content and evaluated its impact using questionnaires administered during the programme and a focus group immediately after the programme ended. We evaluated impact on flexibility of thinking and structure of memory using a validated diagnostic inventory (4) administered to the intervention group and a parallel control group before and after the programme.

Analysis and Results:
Student evaluation of the educational experience was extremely positive in both questionnaire responses and focus group.
Preliminary analysis of diagnostic inventory data indicates no significant difference between the programme and control group. More in-depth analysis of the data is underway and the results will be available for presentation at the conference.

Discussion:
Potential causes of discordant results will be discussed during the presentation.

References:
[1]Croskerry P. A Universal Model of Diagnostic Reasoning. Acad Med. 2009; 84:1022-1028. doi:10.1097/ACM.0b013e3181ace703
[2]Norman G., Eva K. Diagnostic error and clinical reasoning. Med Educ. 2010; 44:94–100. doi:10.1111/j.1365-2923.2009.03507.x
[3]Eva K, Hatala R, LeBlanc V, Brooks L. Teaching from the clinical reasoning literature: combined reasoning strategies help novice diagnosticians overcome misleading information. Med Educ. 2007; 41:1152–1158.doi:10.1111/j.1365-2923.2007.02923.x
[4]Bordage G, Grant J, Marsden P. Quantitative assessment of diagnostic ability. Med Educ.1990; 24(5):413-425.doi:10.1111/j.1365-2923.1990.tb02650.x

SHORT ORAL O 25

Shifting Sands: a training and assessment program for a nurse-led MET responder service (O 113 in programme)

Gherardin, E.

Objective:
To develop a suitable education, training and assessment program for Division 1 nurses, who are part of the Nurse-led Medical Emergency Team (MET).

Methods:
A nurse-led MET responder service commenced in August 2009 at the 141-bed campus of the Catholic, private, not-for-profit, health care organisation. The hospital has increased its medical/surgical patient acuity and is currently experiencing an average of 7 MET calls a month. The service provides for suitably skilled nursing staff to administer emergency medical therapy for a range of acute clinical conditions. It required an education and assessment program that supported the use of the fluid and medication Standing Orders.[1]

The 3-phase program consists of:

- a self-directed learning package;
- a 3-hr workshop for assessment skills practice and scenario training;
- oral competency-based assessment.

Results:
The first 2 phases highlighted a number of gaps in the participants' pre-program knowledge and skills. Participants increased their clinical assessment skills repertoire and report more confidence in responding to the acutely ill patient.

Conclusions:
Though the impact on the outcomes of the MET response is, as yet, unknown, the participants valued the clinical skills update. Challenges include overcoming assessment fears and supporting clinical skills learning across campuses.

References:
[1]Australian Commission on Safety and Quality in Healthcare, 2010, *Consensus Statement: Essential Elements for Recognising and Responding to Clinical Deterioration*, Consultation Paper, available at www.safetyandquality.gov.au

SHORT ORAL O 26

High-fidelity simulation and video-performance analysis: supporting cardio-respiratory physiotherapy clinical skills (O 18 in programme)

Gough, S.

This paper reports on a series of short courses featuring high-fidelity simulation and clinical skills training for Postgraduate Physiotherapists. The purpose was to design and evaluate a series of short courses for Physiotherapists to develop clinical and interpersonal skills within a high-fidelity simulated learning environment.

Participants undertook the roles of responding Physiotherapists or peer reviewers during medical, surgical and community scenarios. Brunswick's representative methodological design was employed using 4 bespoke scenarios, which were also aligned to the National Health Service Knowledge and Skills Framework. Studiocode® video-performance analysis software was used by participants to code events/clinical and interprofessional skills, provide peer-feedback during debrief sessions and by faculty to produce video evidence to support participant's Continuous Professional Development (CPD).

The project was evaluated using thematic analysis of reflective simulation peer review debrief documentation and course evaluations (open and closed items). Thematic video-analysis featured a priori themes relating to learning outcomes. Initial findings indicate that the scenarios facilitated the utilisation of a range of clinical skills, enhanced clinical reasoning, clinical decision making and critical thinking skills.

This session will present an overview of how video-analysis software was used to analyse clinical skills, facilitate participant-led peer review, and provide post-event reflective evidence for CPD.

SHORT ORAL O 27

Student nurses knowledge, confidence and competence in measuring radial pulse: A pilot study (O 162 in programme)

Hambridge, K., Bradbury, M., Hughes, C., Jeffery, K., O'Connor, A., Endacott, R.

School of Nursing & Midwifery, University of Plymouth

Background:
Clinical skills rehearsal within healthcare education has become increasingly common over recent years. Although this style of learning is positively evaluated by students (Hogg et al 2006), it is less clear how theory and skills rehearsal affect students' knowledge, confidence and competence.

Methods:
A mixed methods approach was utilised to investigate undergraduate nursing students' confidence in manual measurement and recording of radial pulse. Thirty-four, year one, students completed questionnaires that measured self-reported confidence at three discrete points:

1) Pre classroom theory session
2) Post theory/pre clinical skills rehearsal
3) Post clinical skills rehearsal

Competence was assessed immediately post skills rehearsal using a criterion referenced marking grid. Students subsequently participated in a focus group to obtain qualitative data relating to their learning experiences.

Results:
There was a significant increase in knowledge ($p<.01$) and confidence ($p<.01$) across the three testing points. Competence was positively correlated with confidence ($r_s = .38$ $p<.05$). Focus groups identified the theoretical session as supporting skills rehearsal. In addition, students highlighted the benefits of skills rehearsal within the protected learning environment of the skills laboratory.

Conclusion:
Theory and clinical skills rehearsal appear to be complementary in improving students' confidence in undertaking radial pulse measurement.

Reference:
Hogg, G., Pirie, E., Ker. (2006) The use of simulated learning to promote safe blood transfusion practice. *Nurse Education in Practice* 6, 214-223

SHORT ORAL O 28

Can the Pebblepad ePortfolio system be used to advance clinical skills education? (O 16 in programme)

Hamshire, C.

The Physiotherapy strand of the JISC funded project 'Supporting Responsive Curricula' at Manchester Metropolitan University is using the Pebblepad ePortfolio system to embedded clinical skills and an ePortfolio system across the undergraduate programme. The project team has mapped core professional skills to each of the programme units and clinical placements; aligned with the standards of the Health Professions Council (HPC) and The Chartered Society of Physiotherapy (CSP).

The tagging function of the ePortfolio system is used by the students to structure their Personal Development Portfolios to save evidence, in a variety of formats, which document and record particular skills. These portfolios are kept by the students throughout their three year pre-registration study and form part of the Continuing Professional Development and Lifelong Learning Agenda of the University, HPC and CSP.

This session will demonstrate how the different priorities of professional bodies, employers, students and academics have been considered when embedding clinical skills. We will also discuss how the Physiotherapy curriculum has been developed to include the use of PebblePAD and make students aware of core vocational skills.

SHORT ORAL O 29

Valuing differences – the cornerstone of Inter-professional education (O 17 in programme)

Hamshire, C.

This paper reports on an inter-professional learning experience for 281 first year undergraduate, pre–registration Physiotherapy, Social Work, Speech and Language Therapy and Nursing students at Manchester Metropolitan University. The purpose was to facilitate the students to develop their communication and reflection skills whilst collaborating with students from other professional groups, putting the service user's perspective at the centre of student learning.

The sessions explored inter-professional communication issues in multi professional small groups (9-13 students), starting with a two hour face to face session that was followed by a trigger video of a service user and online discussions via the institutional managed learning environment (MLE). All discussion boards ran for 2 weeks and were facilitated by a lecturer from one of the professional groups.

Students' experiences were evaluated using an online questionnaire with both open and closed items. The initiative was evaluated positively and the students identified numerous benefits, including a raised awareness of other professional roles and the importance of working together. Thematic analysis of the open items also indicated several limitations and areas for development. This session will present an overview of the inter-professional collaboration and a summary of the findings from the questionnaire.

SHORT ORAL O 30

Blending digital technology to enhance clinical skills (O 19 in programme)

Hamshire, C., Gough, S.

This paper reports on a project which blended digital technology to enhance clinical skills; mapped to the National Health Service (NHS) Knowledge and Skills Framework (KSF). The purpose was to facilitate MSc (PreReg) Physiotherapy students to develop their cardio-respiratory, communication and reflection skills whilst taking part in high fidelity simulation activities.

Students were filmed in small groups undertaking simulation scenarios and peer reviewed using both paper and bespoke video-performance analysis templates (using Studiocode). A video podcast of the activities and the peer review feedback where then subsequently used by the students to provide a framework for a reflective debrief within the Pebblepad ePortfolio system.

The project was evaluated using thematic analysis of reflective, peer review documentation, video-performance analysis matrices and unit evaluations. Initial findings indicate that students are able to use simulation podcasts to facilitate reflection, peer review and provide detailed evidence of CPD activities. This session will present an overview of how a range of digital technologies have been carefully selected to enhance the student's educational experience and facilitate clinical skills development within the framework of an e-Portfolio.

SHORT ORAL O 31

Examining the relationship between interpersonal communication skills and nursing students' clinical reasoning ability (O 84 in programme)

Hoffman, K., Dempsey, J., Levett-Jones, T., Jeong, S., Noble, D., Kenney, R., Norton, C., Hickey, N.

Examinations of critical patient incidents have shown that poor clinical reasoning is often linked to adverse patient outcomes as are teamwork and communication failures[1]. The competency of new graduate nurses in all three skills is a matter for concern and little work in nursing has examined the impact of teamwork on clinical reasoning[2].

Aim:
To examine the relationship between interpersonal communication skills on nursing students' clinical reasoning.

Method:
Students participated in a simulated patient situation and worked in teams caring for a deteriorating patient. Nursing care was video recorded and analysed using a taxonomy developed from the literature and preliminary examination of video data. The taxonomy was modified from Oxford NOTECHS scales and student teams were scored for positive and negative behaviours in the categories, leadership, teamwork, and communication and situation awareness. Students' score for communication was then correlated to the score for clinical reasoning.

Results:
A significant correlation was obtained. Non-collaborative work and teams where one member dominated and others did not speak up often lead to failures in clinical reasoning.

Discussion:
It has been suggested that collective agency and assertiveness skills are important in preventing patient adverse events[3]. Teaching such skills to undergraduate nurses is imperative.

References:
[1]Cooper, S., Kinsman, L., Buykx, P., McConnel-Henry, T., Endacott, R. and Scholes, J. (2010) Managing the deteriorating patient in a simulated environment: nursing students' knowledge, skill and situation awareness. Journal of Clinical Nursing. 19, 15-16. 2309-2319.
[2]Anderson, M. and Leflore, J. (2008) Playing it safe: simulated team training in the OR. AORN Journal. 87, 4. 772-779.
[3]Lyndon, A. (2006) Communication and teamwork in patient care how much can we learn from aviation. JOGNN. 35, 4. 347-353.

SHORT ORAL O 32

Patient Safety Tool: Evidence based research application
(O 133 in programme)

Holt, T., Jolly, B., Bird, B.

Monash University

Application of the Patient Safety Tool using a MiniCEX proforma is a research study which seeks to test and validate a tool that was developed from the Australian National Patient Safety Education Framework (Walton et al, 2006). This study involves the collaboration of universities, health care organisations and simulation centres to improve the assessment of international medical graduates in Victoria, funded by the Department of Human Services. Poor performance may occur for a variety of reasons. One area consistently ignored in investigations of performance is that of patient safety in the workplace. It is recognised that IMG's while not a homogenous group, are a key component of the future Australian Medical workforce. There is limited research on the role of International Medical Graduates (IMGs) and patient safety.

Method:
The Patient Safety tool is based on the National Patient Safety Education Framework and is mapped against both national and internationally validated frameworks. The study comprises three stages.
Stage 1: Development of Workplace-based Assessment Methods and Approaches on Patient Safety;
Stage 2: Application of Patient Safety Performance Profile Tool (PSPPT) workplace-based assessment package, data analysis and write-up;
Stage 3: Evaluation of Patient Safety Performance Profile Tool (PSPPT) workplace-based assessment package, data analysis and write-up.

Discussion:
This paper will focus on the application stage as it is based on the work completed to date providing useful data in relation to the importance and relevance of assessment strategies such as the use of an objective structured clinical examination, the use of high and low fidelity simulation exercises and assessment in the workplace place in testing patient safety clinical skills.

Reference:
Walton, M. & Elliott, S. (2006). Improving safety and quality: how can education help? MJA, 184 (10 Suppl): S60-S64.

SHORT ORAL O 33

An OSCE clinical log station: driving reflection on clinical competence development
(O 132 in programme)

Hudson, JN.

Background:
An electronic clinical log was introduced at an Australian 4-year graduate entry medical school with the first intake of students in 2007. While some students embraced this log to record and reflect on their early clinical experiences, initial uptake of the log was low. Among the strategies used to encourage student use of this learning resource was the introduction of an innovative clinical log OSCE station.

What was done:
The clinical log station aimed to foster longitudinal recording and reflection on clinical experience and identification of significant learning issues in relation to patient and self-care, health promotion, teamwork and quality and safety. The scoring process sought evidence of educational use of the log. Demonstration of the marking sheet and standard setting procedure will illustrate how assessors scored performance using the following 3 main criteria: quantity and diversity of recorded experiences; case presentation; and reflection on development issues in relation to the presentation.

Evaluation Findings:
Student log use increased following introduction of the OSCE log station, but decreased following the final examinations. Student performance increased with experience of station expectations.

Conclusions:
While student 'logging' of clinical experience is important for quality assurance and to facilitate support of individual student development, assessment of this activity appears crucial to drive student engagement.

SHORT ORAL O 34

The mental state examination at Peninsula medical School: student perceptions and performance
(O 37 in programme)

Huline-Dickens, S., Bradley, P., Heffernan, E., Coombes, L.

In the UK it is a requirement of the General Medical Council (GMC 2009) that on graduation students can undertake and interpret the mental state examination (MSE). There is very little written about the teaching, learning or assessment of this examination in undergraduate medical settings.

Peninsula Medical School (PMS) was established in 2002 and is one of the new medical schools in the UK with an integrated, modern curriculum. Anecdotally students find the mental state exam ISCE (integrated structured clinical examination) difficult. This project aims to explore this impression and asks two research questions:

1. Are there particular problems with teaching, learning, practising or assessing the MSE in this integrated curriculum?
2. Do the students find the mental state examination difficult and if so why?

The paper describes work in progress. A brief overview of the clinical skills assessment process at PMS will be given followed by comparisons of students' performance in the mental health and non-mental health ISCE stations. Preliminary quantitative and qualitative data from a questionnaire survey administered to all 3rd and 5th year students on their perception of the mental state exam will be presented.

Reference:
General Medical Council (2009) *Tomorrow's Doctors: outcomes and standards for undergraduate medical education.*

SHORT ORAL O 35

Enhancing nursing students' clinical reasoning skills: An innovative teaching strategy
(O 119 in programme)

Hunter, S., Arthur, C., Pitt, V.

Clinical reasoning is "a context–dependent way of thinking . . . in practice to guide practice actions" (Higgs & Jones, 2008). Graduate nurses may have good content knowledge and adequate clinical psychomotor skills however they frequently lack the clinical reasoning skills to deliver safe, effective care (del Bueno, 2005; Levett-Jones, et al., 2010). Contemporary educational approaches do not always develop nursing students' clinical reasoning skills. This presentation will discuss a study that explored nursing students' clinical reasoning skills in a second year clinical course and introduced a strategy to improve clinical reasoning. A quasi–experimental design was implemented over two consecutive years with the 2008 cohort acting as the control group and the innovative strategy introduced in 2009. This strategy included introducing a clinical reasoning framework which the students then applied to clinical situations to acquire an understanding of patient problems. The results obtained show that teaching an explicit process of clinical reasoning and engaging nursing students in the application of this process improves their ability to identify patients' problems.

Nursing students' clinical reasoning skills are enhanced by the inclusion of an explicit process of clinical reasoning and by their engagement in the application of this process.

References:
del Bueno, D. (2005) A crisis in critical thinking. *Nursing Education Perspectives*, 26(5), 278-283.
Levett-Jones, T., Gersbach, J., Arthur, C. & Roche, J. (in press, 2010).Implementing a clinical competency assessment model that promotes critical reflection and ensures graduates readiness for professional practice. *Nurse Education in Practice*. (Available online)
Higgs, J. & Jones, M.A. (2008). Clinical decision making and multiple problems spaces. In J. Higgs, M. Jones, S. Loftus, & N. Christensen (Eds.) (2008) *Clinical Reasoning in the Health Professions*, pp.3-17 (3rd ed.) Sydney: Elsevier.

SHORT ORAL O 36

Prudent use of simulation dollars to achieve good learning outcomes (O 122 in programme)

Hunter, S., Arthur, C., Roche, J., Levett-Jones, T., Kable, A.

There is increasing use of human patient simulation manikins (HPSM) in clinical laboratories in nursing programs (Jeffries, 2007). However recommendations for appropriate funding allocation strategies to achieve good clinical learning are lacking.

This poster will present key findings of a multi-stage project which explored the use of HPSM. In 2009/10, three studies were conducted: a cross sectional survey of Australian Schools of Nursing to establish current usage of HPSM; a quasi-experimental study on the impact of medium and high fidelity HPSM on nursing students' clinical reasoning; and an international Delphi to develop quality indicators for the use of HPSM.

The survey findings highlighted staffing as a key resource issue. The quasi-experimental study did not demonstrate better clinical reasoning when students used high fidelity HPSM. The Delphi results emphasised the need for manikin selection and simulation design based on specified learning objectives, and the importance of adequate staffing and training to achieve curriculum integration and good learning.

To achieve good learning outcomes with HPSM, resources must be adequate to ensure that staff are competent in designing, integrating and facilitating simulations.

References

Jeffries, P. (2007). *Simulation in Nursing Education*. NLN, New York.

SHORT ORAL O 37

Resistance to care and effects on nurses in NSW, Australia (O 82 in programme)

Kable, A., Guest, M., McLeod, M.

Background:
Resistance to care (RTC) is a defensive patient response to nurses and associated behaviour ranges from minor irritation or non-compliance to aggression and violence resulting in injury to staff. Previous studies of RTC have been conducted in aged care settings on patient populations with dementia.

Purpose:
The purpose of this study was to assess the prevalence of RTC in several clinical environments and the effects of RTC episodes on nurses.

Method:
A cross sectional survey was conducted on a sample of 5,044 nurses from the NSW Nurses' Association membership, representing five specialty areas of practice: emergency department, mental health, aged care and medical and surgical nursing. The response rate was 23.3%.

Results:
RTC episodes were reported to occur 2-4 times per week by 80% of participants, and more frequently in emergency, mental health and aged care settings. Nursing activities associated with RTC episodes were: assisting patients with activities of daily living, moving patients, procedures and assisting mental health patients. The RTC behaviours were similar to those reported for patient initiated violence however the resultant injuries were less severe and less frequent (18%). The professional and personal impact of RTC on nurses included: considering leaving nursing, fear and anxiety, powerlessness and helplessness, burnout, depression, low mood/sadness, reduced morale.

Discussion:
RTC is a significant clinical challenge for nurses and recommended strategies to deal with this issue include adopting a calm manner; assessing the problem; setting realistic goals; rewarding achievement of goals; being creative and flexible, postponing nursing activities, distracting residents, and providing relaxation measures or substituting different forms of care. Health care employers should recognise the psychological outcomes associated with RTC episodes and injuries, and management support following these episodes is critical to minimise the effect on nurses, particularly through increased staff/unit support and debriefing.

SHORT ORAL O 38

Personal mentorship: a space in which to develop elusive parts of professional competence (O 40 in programme)

Kalén, S[1]., Ponzer, S[1]., Silén, C[2].

Karolinska Institutet, Stockholm

Context:
Mentoring are used in health care education, but the core of mentorship, i.e., facilitating the development of medical students´ professional competence, has not been explored in depth. In this study medical students were offered a personal mentor during their first clinical courses, term 5-8. The mentors were physicians at the hospital and their role was to support the students and act as sounding-boards.

Objectives:
Get a deeper understanding of the meaning of mentorship in the development of professional competence from the perspective of undergraduate medical students.

Methods:
Twelve individual interviews were arranged. Data were analysed by content analysis.

Results:
Three overarching themes emerged: *Space, Belief in the future* and *Transition***.** Having a mentor gave a sense of security and constituted a 'free zone' alongside the undergraduate programme. It gave hope about the future and increased motivation. The students were introduced to a new community and began to identify themselves as doctors.

Conclusions:
One-to-one mentoring during clinical courses created a space in which students´ transition to becoming doctors was facilitated and their belief in the future was enhanced. One-to-one mentoring facilitated development of the more elusive parts of professional competence; reflective capacity, emotional competence, personal involvement, relations, interaction with others and belonging to a community.

SHORT ORAL O 39

Learning about interprofessional clinical practice in a simulated ward environment (O 81 in programme)

Kiegaldie, D., Darzins, P., Cross, W., Workman, B., French, J., White, G., Flanagan, B.

Monash University

This paper will report on findings from an interprofessional teaching and learning activity delivered to approximately 200 final year medical and nursing students using a simulated patient with delirium in a simulated ward environment. The aims of the study were to develop, trial and evaluate an interprofessional learning (IPL) approach. This was then compared to standard educational approaches used for medical and nursing students provided uniprofessionally (UPL). Students' performance in an authentic simulated scenario was evaluated. Pre and post testing instruments included a Delirium Knowledge Test and the Readiness for Interprofessional Learning Scale. Video recording and observation of the simulation measured the team work and communication skills of IPL and UPL groups. Follow up surveys determined the perceptions of the students during this experience and individual interviews provided an opportunity for further exploration of perceptions of the students during this experience. Results indicate positive feedback about the overall experience from students and tutors. IPL students rated the experience higher than UPL students in terms of increased confidence in the collaborative management of a patient with delirium. All students, but particularly IPL nursing students, rated the experience as an important driver to influence effective interprofessional clinical practice. Differences were noted between groups (UPL and IPL & Medicine and Nursing) about different activities of the learning experience. This study revealed that a complex interprofessional learning intervention is logistically possible and highly valued by students.

SHORT ORAL O 40

Learning together to work together: The Interprofessional Delirium Program (O 80 in programme)

Kiegaldie, D., Maddock, B., Darzins, P., Cross, W., Workman, B.

Monash University

This paper will present the development, implementation and evaluation of an interprofessional learning program conducted in 2010 with approximately 550 final year medical and nursing students. The focus of the program was on delirium and its collaborative management. It was developed following the successful outcomes of a large-scale comparative investigation conducted in 2008.

In 2010, students participated in a three-hour program, which included a DVD of an interprofessional conversation about delirium between a senior nurse and doctor; an interprofessional paper-based case study and an immersive simulation scenario using a trained actor. This was followed by a nurse and doctor led debrief. Key factors to the successful implementation included appointing a dedicated person to manage the program and its logistics, ensuring engagement and training of medical and nursing tutors, and organisational leadership.

The evaluation consisted of a post experience questionnaire including the Readiness for Interprofessional Learning Scale and open-ended questions to explore student's perceptions of the program. Results are currently being analyzed and will be presented at the conference but initial findings indicate that students highly valued the immediate opportunity to put theory into practice and they viewed interprofessional learning as a driver to influence effective interprofessional clinical practices. The program has been so successful this year that it will be delivered to over 800 students in 2011.

SHORT ORAL O 41

"*Lights . . . camera . . . action*", Nursing students in Ireland sit in the director's chair; a technology enhanced approach to clinical skills teaching and learning (O 146 in programme)

Kingston, L., Murphy Tighe, S.

Dept. of Nursing & Midwifery, University of Limerick, Ireland

Background:
A changing profile of nursing student is emerging, one who is heavily influenced by advances in technology and the digital revolution. This challenges educators to design and deliver nursing curricula for the future that apply educational tools and technologies that appeal to students' learning styles but also best suit nursing pedagogy.

Aim:
The study aimed to explore nursing student's experiences of a technology enhanced approach to the teaching and learning of a psycho-motor skill in a clinical skills laboratory.

Method:
Following clinical skills teaching sessions, audio-visual training and independent practice, students of a BSc. Nursing programme were required to submit a video self-recording the skill of blood pressure measurement. They were also required to complete a self-assessment of their skill performance in the video against set criteria. In order to evaluate this innovation students completed an on-line anonymous questionnaire.

Findings:
Following data analysis six themes emerged; critical awareness, learning, engagement, professional development, technical skill development, and training. These themes will be presented in detail during oral presentation.

Recommendations:
Further research into the impact technology enhanced teaching and learning can have on student learning and its potential contribution to the design and delivery of future nursing curricula is recommended.

SHORT ORAL O 42

A simulation-based learning approach to manage patients or professionals hostility in the healthcare environment: Advanced Clinical Skills Education and practice by interprofessional training collaboration (O 39 in programme)

Labrecque, JF., Patenaude, JV., Lamarre, M., Poulin, S., Plante, M., Lajeunesse, Y., Deligne, B., Hubert, G., Robitaille, MJ., Bourdy, C., Drouin, E., Laplante, J., Weber, F., Mahone, M., Delisle, S., Nguyen, DQ., Sansregret, A., Thivierge, R., Drolet, P., Roger-Ciesla, P., Jolivet-Tremblay, M., Boucher, A., Hotte, M., Grandmaison, J., Ferland, A., Perron, R., Durand, J., Lépine, D., Morrissette, A., Bolanakis, S., DRoy, D., Hervé, G., Rouleau, J.

Background:
A semi-public Québécois organization (ASSTSAS) dedicated to workplace safety has developed a training program[1] in collaboration with medical and non-medical members of the Simulation Center of the faculty of medicine. This program establishes intervention techniques for insuring safety of patients and healthcare professionals in helping address the problem of hostility in the healthcare environment.

Work:
A 90-minute simulation-learning workshop for 240 students in second-year clerkship is proposed by this interprofessional team, including preliminary home-based study, and situation-based verbal, psychological and physical technique acquisition. The vision and guiding principals of this training are:

- psychological, social, ethical and physical security for everyone in the healthcare environment,
- situation-evaluation, anticipating the need for help, and intervention resolution,
- to focus on individuals with empathy and respect,
- professionalism and empowerment.

Results:
The description and results of this work and survey are presented.

Conclusion:
We believe that this approach will be embraced by other educational domains within the faculty, and will be employed beyond only undergraduate students.

SHORT ORAL O 43

Turning a Workplace-based assessment into an Educational Prescription (O 24 in programme)

Lefroy, J., Jones, R., Molyneux, A., McKinley, RK.

Keele University School of Medicine

Introduction:
Workplace-based assessment can be a powerful means for improving the skills of trainees through formative discussion but written feedback is often cursory (1,2). An assessment tool for generic consultation skills (GeCoS) has been developed and validated (3). Its granularity enables detailed assessment. A set of corresponding strategies for improvement assists tutors to give focused feedback. Nevertheless, the challenge to provide the student with detailed written feedback remains.

Description:
We constructed a Survey Monkey™ questionnaire which allows GP tutors to record their feedback from workplace-based assessments of medical students. The questionnaire ensures that the assessor has to pair any identified weaknesses with a strategy for improvement.
The assessor is offered a pick list of pre-prepared strategies but can also type in their own suggestions. The assessment generates an "educational prescription" which is emailed to student and tutor.

Outcomes:
In the first year of operation, 366 educational prescriptions were received from GP tutors for 98% of year 3 students. In 45% the assessor gave free text advice in addition to selecting strategies for improvement. Additional evaluation data including student satisfaction will be available for the presentation.

Conclusion:
The level of engagement of GP assessors with generating useful educational prescriptions is encouraging.

Reference:
[1]Norcini J, Burch V. Workplace-based assessment as an educational tool: AMEE Guide No. 31 (2007)

SHORT ORAL O 44

Interprofessional education: Enhancing the teaching of medication safety to nursing, pharmacy and medical students (O 72 in programme)

Levett-Jones, T., Bellchambers, H., Gilligan, C.

Background:
Research indicates that inadequate communication between health care professionals and with health care consumers and/or family members is the primary issue in the majority of medication errors, adverse reactions, and near-misses[1]. Interprofessional education (IPE) has been identified as a strategy that can enhance communication and prepare nursing, pharmacy and medical students for their roles in the medication team[2].

Context:
A study involving nursing students (n=350), pharmacy students (n=90), and medical students (n=24), was undertaken in the Faculty of Health in the University of Newcastle, Australia.

Intervention:
An innovative learning resource was developed to tell the 'story' of "Eileen Poole", a person who encountered various health professionals in her journey through the healthcare system. Eileen's story was told through a series of film and audio clips depicting encounters with a Practice Nurse, a General Practitioner, a Community Pharmacist, and nursing, medical, and pharmacy staff in an acute hospital setting.

Evaluation:
The Readiness for Interprofessional Learning Scale (RIPLS) was used to explore students' attitudes towards IPE after the introduction of the learning resource.

Results:
Overall students' responses to the learning resource were strongly positive (mean 4.8/5). Students believed that the resource portrayed a 'real-life' situation, were more engaging than paper–based case studies and enhanced their communication skills. The resource led to an enhanced understanding of teamwork and respect for the roles of other health professionals.

References:
[1]Benjamin, D. (2003). Reducing medication errors and increasing patient safety: case studies in clinical pharmacology. *Journal of Clinical Pharmacology* 43(7), 768-83.
[2]World Health Organization (2007). The conceptual framework for the international classification for patient safety. Geneva, World Health Organization, World Alliance for Patient Safety.

SHORT ORAL O 45

Delivering a course long programme of undergraduate small group clinical skills (The Clinical Supervisor Programme): a valued experience for both parties (O 177 in programme)

Lillicrap, M.

Background:
At the University of Cambridge all clinical medical students are allocated, in groups of 6-8, to an identified junior doctor (Clinical Supervisor) for weekly bedside clinical teaching. The learning objectives for these sessions include history/ examination skills, diagnostic reasoning skills and ward craft. Weekly teaching occurs throughout the 3 years of the clinical course. Approximately 100 junior doctors are involved with the programme at any one time. Staff development, leading to potential accreditation with the UK Higher Education Academy, is provided to all the clinical supervisors. This study sought to assess the educational effectiveness of the clinical supervisor programme.

Methods:
A questionnaire survey (with quantitative and qualitative components), of all students, was undertaken. Qualitative date were analysed using a grounded theory approach.

Results:
418 students were approached - response rate 59%. 95% of respondents rated clinical supervisions as excellent or good. Qualitative analysis identified the approachable nature of the junior doctors and the high quality of their teaching as common positive emergent themes. Potential areas for improvement identified were to increase the frequency of sessions and decrease the group sizes!

Conclusions:
A junior doctor teaching programme, if suitably resourced and supported, can deliver high quality teaching over the long term.

SHORT ORAL O 46

International validity of a ward based simulation exercise for new medical graduates (O 89 in programme)

Lloyd, A., Owen, H., Sprick, C., Mayer, S.

Background:
A multi-patient ward simulation has been validated for assessment of patient care[1]. We wanted to ascertain if this simulation, which tests knowledge and skills including communication and prioritisation, could be used in Australia.

Methods:
Minor modifications were made to the patient scenarios to reflect local idioms and clinical practice. With ethics approval, 1st and 2nd year medical graduates from 3 hospitals were invited to participate in the simulation. Afterwards, participants completed an evaluation.

Results:
Graduates (n=35) evaluated the ward simulation as follows:

Table of results

General satisfaction				
Very Low		1	19	15 very high
Realism				
Not at all	1	4.5	20	9.5 extremely realistic
Level best suited				
Med student 5.5	1st year graduate 19.5	2nd year graduate 10	Specialty trainee	
Duration of scenario				
Too short 5.5	Appropriate length 29.5	Too long		
The scenario allowed me to practice skills used in clinical setting				
Not at all	Minimally 3.5	Somewhat 10.5	Greatly 21	

Analysis of comments by participants evidenced positive views of the value of several live patients who made demands in a dynamic and complex environment.

Conclusion:
With only minor modifications the ward simulation developed in Dundee replicated the essence of an actual ward in South Australia. This suggests, medical education research findings can be transferred between these location.

Future directions:
Can this simulation be used to identify students who will underperform as interns?
Will cross assessment between sites demonstrate inter-rater reliability between campuses?

Reference:
[1]Ker JS, Hesketh EA, Anderson F, Johnston DA. Can a ward simulation exercise achieve the realism that reflects the complexity of everyday practice junior doctors encounter? Medical Teacher 2006 288; 330-334

SHORT ORAL O 47

Managing Challenging Situations in Practice – A new programme developed to meet the specific needs of student nurses (O 107 in programme)

McGrath, M., Lyng, C., Cocoman, A., Ward, E., Jackson, R.

It is important that student nurses can recognise and manage situations that may potentially lead to aggression and violence before they reach that stage. This type of training is not legally required in Ireland, but all of our clinical sites require student nurses to complete it before attending clinical practice. The generic programme previously used did not meet the needs of students working with patients in complex environments.

The need for a programme that specifically met the challenges encountered by nursing students was identified. A group was established that had representation from each of the four nursing pathways general, mental health, intellectual disability, and children's nursing.

A programme entitled 'Managing Challenging Situations in Practice' was developed. A variety of teaching methods are used to enable students beginning their healthcare careers to recognise potentially threatening situations and manage them appropriately with regard to their level of training and responsibility.

This programme was positively evaluated by students who enjoyed it and found it beneficial. In addition there were substantial savings in terms of financial and human resources.

The new programme was developed to fulfil a specific need identified in the undergraduate nursing programme. This paper will disseminate details of the development and evaluation of this programme.

SHORT ORAL O 48

Pre intern students: are they ready to 'practice' on patients? How competent do they think they are? How competent are they? (O 195 in programme)

McKenzie, S.

Background:
The procedural skills competency in male catheterisation of final year medical students pre-interns (PRINTS) from a large city university clinical school is varied as these skills are not assessed on graduation.

The purpose of this paper is to elucidate factors considered by the students to find out if they feel that they are competent and are ready to perform the procedural skills of male catheterisation on live patients.

Aims:
This is an experimental pilot study using an inductive grounded theory approach to explore final year student's level of confidence, competence and their overall experience in performing male catheterisation.

Expected Results:
There is expected to be a variation in the student's perceived competence in performing this skill and their actual competence. This relates to the difference in opportunities in third and fourth year to practice on live patients, it is expected that there is a correlation with the number of times the students have performed the procedure on a patient with supervision.

References:
Barnsley, L., Lyon, P., Ralston, S ,Cunningham, H.E., Gordon, J., & Field, M. (2004). Clinical Skills of Junior Doctors: A comparison of self reported confidence and observed competence. Medical Education, pp. 358-367.
Biggs, J. (2003). Teaching for Quality Learning at University, (2nd Ed.), Society for Research into Higher Education & Open University Press.
Wass V., Van der Vleuten, C., Shatzer, J., & Jones, R., (2001). Assessment of clinical competence. Vol 357, Issue 9260, 24 March, p. 945.

SHORT ORAL O 49

PAL across health disciplines: Students paramedics learning clinical skills from student midwives – a pilot study
(O 188 in programme)

McLelland, G[1]., French, J[1]., McKenna, L[1].

School of Nursing and Midwifery, Monash University Melbourne Australia

Background:
This project investigated the benefits of using peer assisted learning (PAL) techniques in an inter-professional experience between student midwives and student paramedics. PAL has been shown to be as effective as learning from instructors in undergraduate education (Weyrich et al 2009) but its benefits across disciplines has not been explored. Using PAL principles in an inter-professional context, workshops were developed by the senior student midwives to teach the 2nd year paramedics students the care of mother and baby following vaginal birth.

Aim:
To determine the effectiveness of student paramedics learning clinical skills from student midwives using PAL techniques across health disciplines.

Methods:
The data were obtained from two questionnaires. One was distributed to the student midwives and the other to student paramedics approximately one month after the workshops. The results were analysed using Statistical Package for Social Sciences (SPSS) version 18.

Findings:
There was a response rate of 62.5% from 24 midwifery students and a response rate of 29% from 73 student paramedics. The importance of inter-professional education was recognised by all of the student midwives and the majority of the student paramedic (96.4%) with most of the student paramedics enjoying this experience (92.9%). Although 73.3% of student midwives were apprehensive about the teaching at the beginning, on completion of the unit they all agreed they were better equipped to teach clinical skills. The interdisciplinary PAL was of benefit to student paramedics with the majority (75%) indicating freer communication as well as greater collaboration and interaction. Overall they felt less anxiety (71.5%) and thought the student midwives were more supportive than their instructors (60.7).

Implications:
This study highlights that PAL across health disciplines has valuable educational benefits for both the students who are "teaching" and the students who are "learning" however further research needs to be undertaken due to the small sample size.

SHORT ORAL O 50

Developing Clinical Wisdom: An integrated conceptual expansion model (O 51 in programme)

McNaughton, SM.

A phenomenographic study of Maurice Merleau-Ponty's work on the nature of embodied perception as related to the development of clinical wisdom was conducted as the thesis component of a Masters degree. This led to the extraction of themes and the construction of a possible model for the development of clinical wisdom (see Fig 1.). Further work has produced expansion of the model and the development of a possible alternative theory for the nature of wisdom itself. The author hopes to test the validity of this model and the theory in PhD work, which will involve developing and testing a tool based on concept-mapping (Kinchin, Baysan & Cabot, 2008; Kinchin, Cabot & Hay, 2008; Kinchin & Cabot, 2010; Novak & Cañas, 2008) over the next year to assess integrated cognitive, psychomotor and affective conceptual expansion as the basis for clinical wisdom development. The provisional plan is to recruit students from two different clinical disciplines to provide six-monthly maps and personal accounts of map development over two years of clinical practice.

This presentation will provide a new researcher with valuable feedback from experienced clinicians and researchers and hopefully suggestions for further modifications to improve the research.

References:

Kinchin, I.M., Baysan, A., & Cabot, L.B. (2008). Towards a pedagogy for clinical education: beyond individual learning differences. *Journal of Further and Higher Education,* 32(4), 373-387. doi: 10.1080/03098770802395587

Kinchin, I. M., & Cabot, L.B.(2010). Reconsidering the dimensions of expertise: from linear stages towards dual processing. *London Review of Education,* 8(2), 153-166. doi: 10.1080/14748460.2010.487334

Kinchin, I.M., Cabot, L.B., & Hay, D. (2008). Using concept mapping to locate the tacit dimension of clinical expertise: towards a theoretical framework to support critical reflection on teaching. *Learning in Health and Social Care,* 7(2), 93-104. doi: 10.1111j.1473-6861.2008.00174.x

Novak, J., & Cañas, A. (2008). *The theory underlying concept maps and how to construct and use them.* (Technical Report IHMC CmapTools 2006-01 Rev 01-2008. Florida Institute for Human and Machine Cognition, 2008). Retrieved from http://cmap.ihmc.us/Publications/ResearchPapers/TheoryUnderlyingConceptMaps.pdf Fig 1: Model for Wisdom Development

SHORT ORAL O 51

Clinical skills or simulation? (O 128 in programme)

McQueeney, L.

The use of simulation in health care education has grown over the last decade with most tertiary education facilities now using a variety of equipment to support students' learning experience. Simulation has been found to increase self efficacy and enhance confidence in attempting clinical skills, in turn inciting critical thinking (Alinier, Hunt and Gordon 2004, Issenberg et al 2005). Although there is a great deal of literature about activities using clinical skills and/or varying types of fidelity in simulation, the terms are not clearly defined or articulated. Information for this presentation is derived from a study involving nursing educators specialising in clinical skills and simulation in Australia. Qualitative data will be presented from the findings that will highlight where educators believe clinical skills end and simulation begins. It will report progress to date in research undertaken to determine how clinical simulation and clinical skill laboratories differ, and/or facilitate each other. The aim of this research is to seek clarity about differences in this area of education that could assist in developing curricula involving clinical skills and simulation.

This presentation will be of interest to people in educational and clinical environments where simulation is fundamental to the delivery of the curricula.

References:

Alinier, G, Hunt, WB & Gordon R 2004, 'Determining the value of simulation in nurse education: Study design and initial results', *Nursing Education in Practice*, vol. 4, pp. 200-207.

Issenberg, SB, McGaghie, WC, Petrusa, ER, Lee Gordon, D & Scalese, RJ 2005, 'Features and uses of high-fidelity medical simulations that lead to effective learning: A BEME systematic review, *Medical Teacher*, vol. 27, pp. 10-28.

SHORT ORAL O 52

The use of video podcast to support learning of musculoskeletal physiotherapy skills (O 110 in programme)

Mishra, S.

Teaching physiotherapy often involves demonstration of clinical skills to students. The students have limited supervised practice sessions and need further support to learn the skills effectively. The availability of high speed internet, low cost user friendly video recorders and editing software have now made it possible to create and disseminate video materials over the internet with relative ease. It also offers the student the flexibility of "learning at anytime and at anyplace" (Dale, 2008).

This presentation reports on the development and use of a series of videos podcasts to facilitate the learning and revision of musculoskeletal clinical skills. The videos included demonstration of manual therapy, joint assessment techniques and videos to facilitate clinical reasoning. These video podcasts were made available to the BSc. (Hons.) and pre-registration MSc. Physiotherapy students of Manchester Metropolitan University (MMU) over the internet through the institution's virtual learning environment (VLE). The videos were also accessible to students during their clinical placements.

The students' and lecturers' feedback on the resource will also be presented in the form of qualitative and quantitative analysis. The opportunities of video podcast in teaching and learning clinical skills and the barriers to creating effective video podcasts will also be discussed.

SHORT ORAL O 53

Implementation of a transition program from Clinical Skills Lab to the real environment (O 157 in programme)

Moirasgenti, M., Smyrnakis, E., Trufas, K., Grosomanidis, V., Panos, A., Vouzounerakis, E., Gavana, M., Benos, A.

Clinical Skills Lab, Medical School, Aristotle University of Thessaloniki, Greece

Background:
Supervised practice in hospital settings is a way to prepare students to overcome their anxiety for the transition from simulation to everyday practice[1,2,3].

Objective:
The aim of the study is to describe the implementation of a program that helps medical students transit from Clinical Skills Laboratory (CSL) to real patients.

Methods:
CSL tutors were invited to participate in the transition program and permission to train students was obtained. We identified which specific skills could be supervised according to each department's routine. Students were recruited via e-mail, from the pool of last semester's CSL course graduates. An on-line booking system was created, where tutors posted their weekly availability and students booked a training session. Beforehand, students were asked to complete a needs assessment questionnaire.

Results:
14 tutors stated their interest and 12 finally participated, working in 8 departments/units: General Surgery, ER, ICU-A, ICU-B, Cardiac Surgery Unit, Oncology, Internal Medicine, Anesthesiology Department. We identified 6 specific skills that could be supervised: injections, venipuncture, airway support, bladder catheterization, suturing technique and infection control. 22 students enrolled to the program.

Conclusions:
The success of this pilot was based on the pivotal role of the CSL's tutors, and on the easy-to-use online booking system.

References:
1Stark, P. Developing the continuum of clinical skills teaching and learning; From simulation to reality. International Journal of Clinical Skills, 2007, 1(1):4-6.
[2]Kilminster SM, Delmotte A, Frith H, Jolly BC, Stark P, Howdle PD. Teaching in the New NHS:

the Specialised Ward Based Teacher. Medical Education, 2001;35(5):437-444.
[3]Bokken L, Rethans J, Van Heurn L, Duvivier R, Scherpbier A, Van der Vleuten C. Students' Views on the Use of Real Patients and Simulated Patients in Undergraduate Medical Education. Academic Medicine 2009, 84(7):958-936.

SHORT ORAL O 54

Efficacy of Cardiopulmonary Resuscitation in the Dental Practice (O 94 in programme)

Morse, J., Orr, G., Thomas, D.

In the current recommendations for providing cardiopulmonary resuscitation (CPR) in dental practice it has been suggested, that there is no difference in the efficacy of performing CPR in either the dental chair or on the floor.[1]

From a small pilot study carried out in a controlled setting, the study team have found that there is a difference in the efficacy between the cardiac compressions performed in the chair and on the floor especially in relation to the realism of ambulance response times.
The difference in this efficacy of CPR could be even greater following the release of the new resuscitation guidelines which have increased the depth of compressions from 4-5cm to 5-6cm.

With the change in the resuscitation guidelines, thus it is hypothesised that an amendment to the current advice shown by the study data, could assist in an increased patient survival should CPR need to be performed in the dental practice.

Having just received ethical approval to proceed with the study, by the time of the conference we should have almost final data to share in regards the findings of this interesting and potentially lifesaving study.

References:
[1]Lepere, AJ. Finn, J. Jacobs, I. Australian Dental Journal, 2003;48(4)244-247

SHORT ORAL O 55

Learning about key concepts underpinning communication skills for health care (O 169 in programme)

Murphy, MJ.

Background:
Student nurses take a module called Promoting Health in the 4th year of their degree. It is difficult to know whether key communication concepts, delivered throughout the programme have been internalised by students. Many key communication concepts are central to MI theory which is delivered within this module. Therefore when teaching the module it is difficult to know to what extent these concepts need to be elaborated on and reinforced.

Aim:
The aim of the is to describe the learning in relation to communication concepts that student nurses describe as a result of self reflection on a digital recording of themselves applying the principles of MI to a simulated case scenario.

Method:
Students participated in and critiqued a recording of themselves applying the key principals of MI. Retrospective documentary analysis of these assignments was completed using thematic analysis to identify learning related to key communication concepts.

Results:
The learning that occurred in relation to key communication concepts are:
A need to
(a) change practice to 'patient centred care'
(b) respect 'autonomy'
(c) be 'self aware'
(d) develop 'communication skills'
(e) review the meaning and place of 'health education/information giving'

Discussion:
Students had not internalised key concepts underpinning communication skills that are central to contemporary health care provision however, teaching MI in the described manner may facilitate the process.

SHORT ORAL O 56

Continuity of the clinical educator in enhancing clinical learning (O 129 in programme)

Newton, JM., Jolly, BC., Ockerby, CM., Cross, WM.

Preceptorship is increasing in popularity as a strategy to facilitate learning in practice. A preceptorship partnership model between a university and healthcare organisation enables students to complete all clinical placements within the one healthcare organisation, supported by clinical preceptors and a constant clinical teacher.

It was hypothesised that participation in the partnership model would lead to more positive perceptions of the clinical learning environment. Data from second (n=396) and third (n=263) year nursing students was collected over three years using a modified Clinical Learning Environment Inventory[1]. Students were classified into three groups based on which educational model they received.

On the inventory factor 'Student centredness', a Welch test indicated a significant difference between the responses of students ($F_{[2, 267]} = 8.14, p < .001$). Specifically, Games-Howell post hoc tests indicated that students in the partnership model (M = 41.32, SD = 5.48) responded more positively than students who had both a clinical teacher and a preceptor in other models (M = 38.37, SD = 6.08).

Developing sustainable approaches to enhance clinical learning for health professional student is an international concern. The significance of continuity of clinical teachers to the contribution of student centredness is an important aspect to be considered.

References:
[1]Newton, J. M., Jolly, B. J., Ockerby, C.M. & Cross, W. M. (2010) Clinical Learning Environment Inventory – factor analysis. *Journal of Advanced Nursing 66(6) pp. 1371-1381*

SHORT ORAL O 57

Developing skill competence for smooth sailing into healthcare practice (O 83 in programme)

Newton, JM., Lasater, K.

Development of competent clinical skills, including clinical judgement, in healthcare professionals is a mandatory requirement in the preparation of undergraduate students. However the acquisition of clinical skills is not always smooth sailing. The transition of learning from the ground base and setting forth into the depths and swells of practice can be a tumultuous passage.

Learning clinical skills through practice is crucial for the development of competence and clinical judgement; however this practice is not always forthcoming. Moreover, it has recently been suggested that the development of practice, of which clinical judgement is a significant component, is a process of apprenticeship[1]. Drawing upon our research in simulation and workplace learning with undergraduate nurses, in the USA and Australia, this presentation identifies several areas that can impede on the development of clinical judgement skills: student readiness to learn, the ability to translate the learning into practice and the impact of the clinical workplace on fostering skill competence. We will propose pedagogical approaches to facilitate the learning of clinical judgement that enhances students' engagement with the process, builds on a desire to learn and fosters deep learning in the translation into practice, creating smoother sailing for the health professional.

References:

[1]Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating Nurses - a call for Radical Transformation*. San Francisco, CA.: Jossey-Bass.

SHORT ORAL O 58

The effect of Gynaecological Teaching Associates on ethnic minority students' anxieties about female pelvic examinations (O 164 in programme)

Parle, J., Barry, K., Morley, D., Calvert, M., Irani, S.

Background:
Gynaecological Teaching Associates (GTAs) are used to teach pelvic examinations (PEs). We compare here distress scores of medical students of different ethnic groups, before and after a teaching session with a GTA.

Population: 323 of whom ethnicity data available for 280 (37% male), 3rd year, 42% ethnic minority.

Teaching session:
1 GTA, 1 co-facilitator. Introduction explores concerns; DVD showing PE; demonstration by GTA on manikin; students practice on manikin; students examine GTA with feedback.

Method:
Modified Gynaecological Examination Distress Questionnaire (GyExDQ), 4 point Likert scale, covering students' comfort with examinations (low scores = more discomfort).

Results:
Distress scores for palpating the abdomen (the 'control condition') before the session were 2.49, 2.42 and 2.31 for White British, Indian and Pakistan with Bangladesh groups respectively and were 2.74, 2.64 and 2.88 afterwards. Scores for inspecting the external female genitalia before the session were as follows: 1.24, 1.17, 0.81 respectively and rose to 2.25, 2.32 and 2.38 after the session. For separating the labia and inserting fingers into the vagina scores before the session were: 0.75, 0.76 and 0.5 respectively and rose to 2.22, 2.25 and 2.31. For talking to patients while performing an intimate examination scores before the session were: 1.19, 1.15 and 1.13 respectively and rose to 2.33, 2.39 and 2.63. Differences in scores before and after the session were statistically significant.

Conclusion:
Compared to white British students, ethnic minority students have greater distress about PEs but after 1 session with GTAs their distress scores improve to the same level.
Detailed statistical analysis with approximately 600 students will be available.

SHORT ORAL O 59

Priorities and innovations in Advanced Clinical Skills Education and Practice: original ways to initiate students to three important non-technical skill competencies (O 63 in programme)

Patenaude, JV., Deligne, B., Lajeunesse, Y., Vollant, S., Talbot, M., Hubert, G., Robert, J., Leblanc, GB., Bourdy, C., Drouin, E., Jolivet-Tremblay, M., Sansregret, A., Weber, F., Mahone, M., Delisle, S., Nguyen, DQ., Drolet, P., Thivierge, R., Roger-Ciesla, P., Laplante, J., Boucher, A., Hotte, M., Grandmaison, J., Ferland, A., Perron, R., Durand, J., Lépine, D., Morrissette, A., Bolanakis, S., Roy, D., Hervé, G., [2], Rouleau, J.

Université de Montreal – Faculty of Medicine,
CAAHC
CAE-Healthcare

Background:
The Problem-Based Learning approach of our faculty, one of largest in North America, incorporates the latest theories and best practices regarding patient safety and healthcare-related risk management.

To this end, we implemented simulation-based learning programs to help develop complex interactive clinical attitudes and technical skills. We believe that these learning experiences play a key role in changing the attitudes, behaviors and competencies of students, teachers, clinicians and associated organizations. In 2009 we had more than 24,000 hours/presence/training with simulation.

Work:
In 2009-2010, we have developed more than 60 sophisticated workshops for our two campus 1,000 pre-graduate students. Of these, some address crucial but often ignored competencies and behaviors including:

- addiction amongst doctors, (abstract 49498)
- management of hostile patients and healthcare professionals,(abstract 60538)
- respect and cultural sensitivity for First Nations members (aboriginal Quebecois), (abstract 37289)

Results:
These workshops are presented in poster format. The description and results of activities are presented for discussion and comment.

Conclusion:
We believe that these workshops provide innovative approaches to their subjects. They are generalizable for other student or professional bodies, and have already been shared within our peripheral campus.

SHORT ORAL O 60

Does Clinical Exposure Activate Medical Students to Learn More from Computer Modules? (O 184 in programme)

Pusic, M., Song, H., Plass, J., Nick, M., Keane, H., Kalet, A.

NYU School of Medicine, New York, NY USA

Background:
Computer modules are often presented separately from actual clinical experience; however, clinical exposure may activate learners to better learn from such modules.

Objective:
To determine whether prior clinical exposure results in increased learning from a computer module.

Method:
Prospective cohort study of clinical year medical students on surgery rotation. We made available two modules, on "Appendicitis" and "Carotid Stenosis", to be done at the student's convenience. Students completing the modules reported their experience with the condition (none, some) and completed pre- and post-tests of declarative knowledge. We contrasted final score by clinical exposure.

Results:
166 students completed a module: Appendicitis 38/86 (44%) had any prior clinical exposure; for Carotid Stenosis 26/80 (33%) For both the topics, prior exposure was associated with higher post-test scores (Appendicitis effect size 0.40; 95% CI -0.03, +0.83; Carotid Stenosis effect size 0.31; 95% CI -0.16, +0.78). Adjusted for pre-test knowledge, the Appendicitis module still showed a significant effect of clinical exposure (ANCOVA $F_{2,83}$= 4.45, p=0.04).

Conclusions:
In an actual clinical learning setting, students had measurably higher learning from a module when they had had at least some prior clinical exposure.

SHORT ORAL O 61

Are you watching? Assessing the clinical ability and progress of medical students (O 73 in programme)

Russell, J.

Background:
The basic premise here is that students are not being observed enough in real clinical situations in order to track their clinical progress.

The current accepted method of assessing medical students and their clinical ability is the Mini CEX, which essentially deconstructs the clinical encounter into small parts, which are examined independently.

Whilst this is useful for teaching the basics to the early clinical learner, I would argue that soon the integrated assessment of a patient becomes more appropriate and relevant as the student develops his/her skills over the clinical years.

Methodology:
The Observed Patient Encounter (OPC) involves the tutor observing the student taking a history and examining a patient who has presented to the Emergency Department on the day.

A Mini CEX is run consecutively and the research looks at the reflections of both the tutor and the student about the two methods of clinical assessment.

Results:
Preliminary results indicate a preference for the OPC model over the MINI CEX by both tutors and students over the semester.

Whilst the students found the OPC more challenging they felt that it took them to the next level in acting and thinking like doctors, particularly with respect to clinical reasoning.

SHORT ORAL O 62

Role of Sim-Man in Teaching clinical skills to pre-clinical medical students (O 57 in programme)

Sadanandaswamy M., Bloomfield, TC., Thomas, RH., Singh, H., Almeer, G., Searle, RF.

Newcastle University, Newcastle upon Tyne, United Kingdom

Introduction:
We used the Laerdal Sim-Man 3G simulator programmed to display abnormal signs to evaluate the pre-clinical student's ability to differentiate between normal and abnormal signs when learning the clinical skill of chest examination.

Material and Methods:
First year graduate entry preclinical medical students who had previously been taught chest examination on one another were divided into 2 groups. One group performed chest examination on each other while the other group used Sim-Man programmed to display abnormal signs in 4 clinical conditions (acute asthma, acute COPD, aortic stenosis and infective endocarditis). The groups then crossed over. Both groups completed pre-, mid- and post-test questionnaires on knowledge and confidence recognising abnormal signs and the data was analyzed using Mann-Whitney test.

Results:
Knowledge scores differed significantly between the two groups for the mid-test with pre-clinical students who had started with SimMan scoring higher than those who started the session examining one another (p=0.002). Their confidence to identify abnormal signs also increased significantly between pre-test and mid-test compared with students who started on one another (p=0.01).

Conclusion:
Sim-Man can be used to increase the pre-clinical student's knowledge and self-confidence to recognise and differentiate between normal and abnormal signs when teaching clinical skills.

SHORT ORAL O 63

Starting residency with a laboratory-based skills course facilitates the early acquisition of technical skills in Orthopaedic Residents (O 23 in programme)

Safir, O., Kraemer, W., Alman, B., Ferguson, P., Reznick, R., Sonnadara, R.

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Mount Sinai Hospital, Toronto

Incoming first-year orthopaedics residents were divided into three groups (on service (ON), n=5; off service (OFF), n=4 and intensive skills lab (ISL), n=3). Baseline surgical skills were assessed prior to commencement of residency. The ISL group started their residency with a four-week laboratory-based course which focused on technical skills, while the other groups embarked on traditional residency. At the end of the technical skills module, all residents had core surgical technical competencies assessed using an observed structured assessment of technical skills (OSATS) procedure. Pre-training scores revealed no differences between the groups of residents using both checklist ($F(2,9)=1.78$, $p=0.223$) and the GRS scores ($F(2,9)=0.70$ $p=0.52$). Post-training scores revealed a significant difference, with residents from the ISL group performing better on both the checklists (ON=80.3, OFF=77.8, ISL =93.4; $F(2,9)=27.94$, $p<0.001$) and GRS (ON=3.47, OFF=3.44, ISL=4.28; $F(2,9)=23.92$, $p=<0.001$), than the other groups who showed no differences between them. The data show that the intensive course used in this study was highly effective at both developing and evaluating targeted surgical skills in first-year orthopaedic residents despite small sample sizes. We predict that allowing residents to acquire key technical skills at the start of their training will greatly enhance learning at later stages of training.

SHORT ORAL O 64

Using Self-Assessment to Develop Clinical Skills Competence: A Case Study Analysis (O 175 in programme)

Sharvin, B.

Waterford Institute of Technology

The development of competence in clinical practice skills is essential for safe practice and yet the assessment of clinical competence does pose ethical and practical difficulties and has proved problematic for nurse educators (Major, 2005; Watson et al, 2002). This paper presents the findings a doctoral research study which set out to address these problems through the design and evaluation of a self assessment tool to assist students in developing their competence in clinical skills while on placement.

A case study design, was adapted using one cohort of undergraduate students nurse in a third level institute (N= 26). Data was collected using a mixed method approach including Clinical Skills Assessment (OSCE), researcher field observation, self assessment tool, student reflections, evaluative questionnaire, and focus group analysis.

Analysis of the quantitative data found a statistically significant improvement in students' clinical skills competence level from before beginning placement to completion (p£ 0.05). Evaluative analysis also found a statically significant improvement in students' perception of their own competence. Qualitative analysis indicates that this improvement can be attributed to the use of the self-assessment tool.

Self-assessment could therefore be a key learning tool in the future development of clinical skills competence for nursing students.

References:

Major, D.A. (2005) OSCEs – seven years on the bandwagon: The progress of an objective structured clinical evaluation programme. Nurse Education Today, 25, pp. 442-454.

Watson, R., Stimpson, A., Topping, A., & Porock, D (2002) Clinical competence assessment in nursing: a systematic review of the literature, Journal of Advanced Nursing, 39 (5) pp. 421-431

SHORT ORAL O 65

Assessing the practical procedures competencies of Tomorrow's Doctors (O 88 in programme)

Simpson, K., Smith, B., Riley, N., Lillicrap, M.

University of Cambridge School of Clinical Medicine

In the UK, the General Medical Council publishes a list of the core practical procedures competencies expected of a medical graduate. How do we ensure that graduates are competent in these skills?

At the University of Cambridge we have developed an innovative practical procedures assessment programme.

Student competency is initially assessed using an OSCE assessment of every skill identified by the GMC. In the 2010 assessment 162 students were assessed in 18 stations. Using a borderline group analysis, to calculate the pass mark, only 5 students would have failed the assessment. However this method presupposes that competency in one skill should compensate for incompetency in another. An analysis of the assessment data revealed that 335 individual skills were failed. Furthermore, 123 students failed at least one skill.

Students who fail any skill are therefore entered into a remediation programme where any skills they have failed are reviewed and reassessed.

Our experience of delivering this remediation programme is that it is feasible, effective and well received by both staff and students. Qualitative data from feedback, alongside quantitative data on effectiveness, will be presented, as well as lessons learned that will be of relevance to other schools.

SHORT ORAL O 66

Acquiring the skill of peripheral venous cannulation: Learning curves in fifth year medical students (O 106 in programme)

Smith, SE[1]., Tallentire, VR[1]., Skinner, J[2]., Wood, M[3]., Cameron, HS[4]

University of Edinburgh and NHS Fife, UK

Background:
Tomorrow's Doctors (2009) states that all UK medical graduates must be able to carry out practical procedures such as peripheral venous cannulation "safely and effectively".[1] The number of cannulations required for anaesthetic trainees to achieve a success rate of 80% has previously been shown to be 79 attempts,[2] but little is known about the number of cannulations that medical students perform, or the success rates achieved. This study investigated the number of attempts and success rates in cannulation performed by fifth year medical students, as well as the pattern of skill acquisition.

Methods:
41 fifth year medical student volunteers piloted a system which recorded the number of cannulation attempts and the success rates. This involved students sending text messages with this information, which was automatically uploaded to the students' personalised Virtual Learning Environment.

Results:
Results are presented as charts which graphically display the learning curve for each individual medical student and are based on the cumulative sum method.

Discussion and Conclusions:
The number of cannulations performed per student throughout fifth year varied significantly. In addition, the pattern and speed of skill acquisition highlight some interesting differences to previous studies using anaesthetic trainees.[2]

References:
[1]General Medical Council (2009). Tomorrow's Doctors. London: General Medical Council, p. 23
[2]de Oliveira Filho GR (2002). The construction of learning curves for basic skills in anaesthetic procedures: an application for the cumulative sum method. *Anaesthesia & Analgesia*; **95**(2): 411-6.
[3]Hammond EJ, McIndoe AK (1996). Cusum: a statistical method to evaluate competence in practical procedures. *British Journal of Anaesthesia;* **77**(4):562.

SHORT ORAL O 67

Senior medical students teach clinical skills to their junior colleagues: evaluation of a PAL project (O 112 in programme)

Smyrnakis, E., Totsi, A., Karakasi, K-H., Tsiranidou, E., Stardeli, T., Vikelouda, K., Savaidou, T., Lolis, A., Loga, K., Varvouni, M., Moirasgenti, M., Gavana, M., Benos, A.

Clinical Skills Lab, Medical School, Aristotle University of Thessaloniki, Greece

Background:
Well-constructed and well-supported peer-assisted learning (PAL) allows students to learn effectively in an informal environment by helping each other [1,2,3].

Objective:
The assessment of the effectiveness of PAL in a clinical skills lab.

Methods:
18 students in their second year were instructed in bladder catheterization, venepuncture, injections and suturing technique. Their tutors were 8 students previously trained in the clinical skills lab. Teaching was carried out in 3 groups of 6 tutees and 2 peer tutors each. Tutees' confidence in practicing clinical skills was assessed, using pre/post project questionnaires. A final questionnaire evaluated tutees' opinion for the project. Acquisition of clinical skills was assessed by a final OSCE.

Results:
Self-confidence ratings increased significantly after training in each of the skills (Table1). Tutors received high evaluation ratings. The overall mean OSCE score was 88.70% (SD 7.24) (Table2).

Table1. Self confidence ratings

Clinical Skill	PAL project	I can do	I can do under supervision	I can't do
Bladder catheterization	before	11.76%	5.88%	82.35%
	after	83.33%	16.67%	-
Venepuncture	before	11.76%	17.65%	70.59%
	after	83.33%	16.67%	-
Injections	before	16.67%	16.67%	66.67%
	after	100%	-	-
Suturing	before	17.65%	70.59%	11.76%
	after	66.67%	33.33%	-

Table 2. OSCE results

	Bladder catheterization	Venepuncture	Injections	Suturing	Overall Mean OSCE Score
Mean (SD)	96.30% (4.56)	82.96% (9.56)	90.37% (9.21)	85.19% (14.24)	88.70% (7.24)

Conclusions:
This study provides evidence that PAL is an effective useful assistive procedure in clinical skills training, and could be incorporated into medical curricula taking into account its wide acceptance by the students.

References:
[1]Ross M, Cameron H. Peer assisted learning: a planning and implementation framework: AMEE Guide no. 30.Med Teach 2007; 29: 527-45.
[2]Field M, Burke J, McAllister D et al. Peer-assisted learning: a novel approach to clinical skills learning for medical students. Med Educ. 2007; 41: 411–8.
[3]Joanne Burke J, Fayaz S, Keith Graham K et al. Peer-assisted learning in the acquisition of clinical skills: a supplementary approach to musculoskeletal system training Med Teach. 2007;29:577-82.

SHORT ORAL O 68

Remote access to skills education: evaluation of the mobile clinical skills unit for Scotland (O 154 in programme)

Stevenson, JK., Race, S., Morse, J., Ker, J.

Clinical Skills Managed Educational Network, University of Dundee, Ninewells Hospital

Outline:
For modest funding, a mobile clinical skills unit has been piloted by the Clinical Skills Managed Educational Network in Scotland. The pilot concludes on 31 December 2010, but so far: 1547 people have attended skills education on the unit in remote and rural areas, 232 courses have been run; from 2 hours (venepuncture) to 3 days (ALS), 51 faculty from 12 Health Boards and a wide range of professional backgrounds have been trained.
The unit has also been used to deliver education by national initiatives.

Background:
A key objective for the Scottish Clinical Skills Strategy is to address the inequity of access to skills education. NHS Education for Scotland funded the build and a two year pilot period. The unit provides the space, part-task trainers and state of the art mid-fidelity simulation equipment to allow a broad range of clinical skills education to be delivered.

Evaluation:
A comprehensive evaluation of the project is being undertaken. Findings will be shared, with facts, figures and stories of impact.

Conclusions:
The unit is almost fully booked for 2011 and much has been learnt from the project that would be of benefit to others considering skills education for healthcare practitioners in remote locations.

SHORT ORAL O 69

The Royal Perth Hospital/Curtin University of Technology Inter-professional Student Training Ward iSoBAR Handover project (O 64 in programme)

Stewart-Wynne, E., McComish, M., Kidd, H., Birkett, K., Jones, D., Della, P.

In 2006 the Australian Commission on Safety & Quality in Health Care identified errors in communication as a significant contributor to poor patent care. Research projects in handover were commissioned, culminating in publication of these in the 1 June 2008 supplement of the Medical Journal of Australia.

One project covered the development of the handover checklist “iSoBAR” (Ref 1), which showed that the use of this checklist improved the exchange of clinical information (country location to Royal Perth Hospital). This checklist was used on student training ward project at RPH, for handovers: i = identify; S = Situation; o = observations; B = Background; A = Agree to a Plan & R= Ready for discharge

A second project from Iedema et al, University of Technology Sydney described the utilization of video recordings during handovers as a simple & effective method of improving the duration and accuracy of the information handed over (Ref 2). This methodology will be followed in the student training ward. Analysis of 75 video recordings & transcripts from audio recordings by 4 members of the research team, with feedback to students & staff showed that:
The students said that they observed what to say (or not) by watching what the nurses wrote down. They did not feel comfortable with “Agree to a Plan” with nursing staff but would have done so if handing over to students & found the iSoBAR checklist easy to use. They rapidly “learned the jargon” eg “non-stemi” “obs stable” “on oral Abs.

The nursing staff recognised that the handover room was too small & modified the way in which handovers take place. Time constraints limited their ability to use handover as a teaching opportunity. They found the information provided accurate & succinct - small number of requests for more information.

Conclusions:
More pre-placement training in handover is being provided for the students.
Senior clinical input to students during handover is helpful in their learning to discern what is important in the handover process.
We have replaced “Agree to a Plan” with “Assessment & Plan”.

References:
[1]Porteous JM, Stewart-Wynne EG, Connolly M, Crommelin PF. iSoBAR – a concept and handover checklist: the National Clinical Handover Initiative. Med J Aust 2008; 190: s152 – s156.
[2]Iedema R, Merrick ET, Kerridge R et al. Handover – Enabling Learning in Communication for Safety (HELICS): a report on achievements at two hospital sites. Med J Aust 2008; 190: s133 – s136.

SHORT ORAL O 70

The Royal Perth Hospital – Curtin University Student Training Ward – an Australian Interprofessional Education perspective (O 15 in programme)

Stewart-Wynne, EG., Brewer, M

Curtin University in collaboration with Royal Perth Hospital completed a pilot student training ward in semester two, 2010 modelled on the highly successful training wards that have operated in Sweden for the past two decades.

Six beds within a general medical ward were used for three consecutive 2-week clinical placements for final year students from nursing, pharmacy, physiotherapy, occupational therapy and social work programs (Curtin) and medical students (University of Western Australia). The students were supervised five days a week on day shifts (0700 -1530). The ward provided an authentic, practice-based learning environment allowing the students to develop the knowledge, skills and attitudes required for effective, patient-centred, collaborative practice. The key focus was the use of interprofessional education principles to ensure holistic patient care, with emphasis on teamwork during patient contact, handover and discharge planning. Facilitators from the 6 professions were present daily. A consumer advocate visited the ward weekly to listen to patients and to provide feedback to the students.

Evaluations of *students* included:
- An Interprofessional Capability Assessment Tool (ICAT)
- A Peer Evaluation Tool
- The Interprofessinal Socialsation & Valuing Scale
- A Pre & Post-Placement IPE Knowledge Tool
- Staff completed a quantitative survey post placement & attended an interview at the conclusion of the pilot
- Patients completed a Patient Satisfaction Survey

Results:
Students
- Statistically significant positive change on all ISVS sub-factors, showing large effect sizes
- Statistically significant positive change on self rated interprofessional knowledge ratings, showing large effect sizes
- High performance on measure of interprofessional capabilities (ICAT)
- 100 % rated the experiences good or excellent

Staff
- 80% rated their experience as good or excellent

- High number of staff felt motivated and confident in facilitating students in IPE following the STW pilot
- Felt that their supervision workload was reduced.

Quantitative and qualitative analysis show significant improvements in students' ability and comfort in collaborating in an IP team, knowledge of their own and other professions' roles and responsibilities, and understanding of the importance of patient-centred care. Feedback from Students, Staff and patients were overwhelmingly positive.

SHORT ORAL O 71

Statistical analysis of the Final Year Ward Simulation Exercise: Objectively assessing a final year medical student's preparedness for the realities of clinical practice (O 180 in programme)

Stirling, K., Mires, G., Ker, J.

Introduction:
Medical schools need to be sure that graduates are prepared for practice in their foundation programme rotation[1]. It is difficult to standardise the assessment of clinical practice. The Final Year Ward Simulation Exercise (FYWSE) objectively assesses a medical student's preparedness for practice within an authentic clinical environment[2]. The FYWSE assesses the medical students' ability to prioritise competing demands, make evidence based judgments, work under pressure and work collaboratively with other disciplines.

Method:
Statistical analysis of the six scenarios developed for the FYWSE was undertaken to identify the complexity of each exercise. Statistical analysis of the assessment tool and the individual and consensus judgment of the assessment team was undertaken to identify the reliability and validity of the FYWSE in assessing candidate performance.

Results:
Initial statistical analysis of the data would suggest that the FYWSE is a reliable method of assessing the performance of final year medical students (0.84). GENOVA testing of the assessment tool produced reliability of 0.83.

Conclusions:
The FYWSE allows an objective reliable assessment of a medical students preparedness for practice to be made. It is feasible to deliver 200 FYWSE's in an authentic standardised simulated environment.

References:
[1]Tomorrow's Doctor (2009). General Medical Council. ISBN: 978-0-901458-36-0.
[2]Ker J., Bradley P Simulation in medical education Understanding medical education series 2007 ASME ISBN 978-0-904473-47-6.

SHORT ORAL O 72

Can Simulation Replace Clinical Attachments? Views of the educational leaders in Australian Medical Schools (O 121 in programme)

Sutton, B., Bearman, M., Jolly, B., Nestel, D., Brookes, P., Flanagan, B., Watson, M., McMenamin, C.

This paper reports the results of a nationwide project undertaken on behalf of Health Workforce Australia. The stresses on clinical placement availability in Australia are intense due to the doubling of medical student places within a 5 year period. This project was commissioned to investigate the educational community's view of the potential for replacement of or augmentation to placements by the use of simulated learning environments (SLE). The team made visits to all Australian medical schools, interviewing usually 3 key stakeholders, sometimes including Deans. Transcripts of the structured interviews, that covered the structure of the curriculum, its governance, and the perceived value, and actual and potential use of simulation across 170 elements of the curriculum (including clinical skills and procedures), were analysed. Almost all schools were using simulation to a great degree. However few schools saw simulation as a potential replacement for 'real' clinical activity. Nevertheless many schools identified its use as a precursor or even a passport to clinical activity. They also identified a large number of opportunities for simulation that could not be achieved solely by clinical placement.

SHORT ORAL O 73

Workplace based assessment in UK postgraduate training: lessons from the learners (O 99 in programme)

Tallentire, VR[1], Smith, SE[1], Dewhurst, N[2].

University of Edinburgh, UK
Royal College of Physicians of Edinburgh, UK

Background:
Existing literature suggests that trainee perceptions of workplace based assessment (WPBA) tools may be limiting their educational potential.[1,2] This study aimed to investigate trainees' views of WPBA, establish the guidance given to trainees in relation to WPBA and explore the barriers to effective implementation of WPBA in UK postgraduate training.

Methods:
An online survey of trainees in all specialities in two UK deaneries (Kent, Surrey and Sussex; South East Scotland) was undertaken in September 2010.[3] Questions relating to utility and guidance covered all types of WPBA used in UK postgraduate training.

Results:
There were 1268 respondents (896 KSS, 372 SE Scotland). Overall, trainees consider case based discussion and multi-source feedback to be the most educationally useful types of WPBA. They were most likely to have received written guidance on WPBA, but would prefer verbal guidance. Assessor time for completion was felt to present the most significant barrier to the effective implementation of WPBA as formative learning tools.

Conclusions:
Trainee opinion of WPBA differs between assessments. The guidance provided to trainees varies dramatically and most trainees are not receiving such guidance in their preferred format. Increased assessor time is required to provide effective assessment of training in the workplace.

References:
[1]Julyan TE. Educational supervision and the impact of workplace-based assessments: a survey of psychiatry trainees and their supervisors. *BMC Medical Education*. 2009;9:51.
[2]Pereira EA, Dean BJ. British surgeons' experiences of mandatory online workplace-based assessment. *Journal of the Royal Society of Medicine*. 2009;102:287-293.
[3]Chapter 15: Questionnaires. In: Cohen L, Manion L, Morrison K, eds. *Research Methods in Education*. 6th edn. Routledge, New York, 2007; 317-348.

SHORT ORAL O 74

Understanding newly qualified doctors' behaviour in acute care contexts: development of a conceptual framework (O 100 in programme)

Tallentire, VR[1]., Smith, SE[1], Skinner, J[2], Cameron, HS[3].

University of Edinburgh, UK

Background:
A particularly onerous aspect of the transition from medical student to practicing doctor is the necessity to rapidly identify acutely unwell patients and initiate appropriate resuscitation.[1] This constructivist study investigated the factors that influence the behaviour of new doctors in this context.

Methods:
Focus groups involving 36 clinicians with a variety of clinical experience were conducted and analysed using a qualitative, grounded theory approach.[2] The complex relationships between emergent themes guided the development of a framework which was refined and validated by further interviews with participants.

Results:
Six main themes emerged from the data: 'transferring knowledge into practice' and 'decision-making and uncertainty' (the cognitive challenges), 'acts and omissions' and 'identity and expectations' (relating to roles and responsibility) and finally 'the medical hierarchy' and 'performing under stress' (aspects of the clinical environment). The framework presented illustrates the complex relationships between these factors.

Discussion and Conclusions:
The emergent themes are explored through the lenses of established educational theories such as Lave and Wenger's situated learning theory which facilitates exploration of professional identity formation and its challenging relationship with patient safety.[2] Improved understanding of these behavioural influences can inform the development of novel teaching strategies in the care of acutely unwell patients.

References:
[1]Illing J, Morrow G, Kergon C, et al. How prepared are medical graduates to begin practice? A comparison of three diverse UK medical schools. GMC Education Committee, 2008.
[2]Charmaz K. Constructing Ground Theory: A practical Guide Through Qualitative Analysis. Thousand Oaks Sage; 2006.
[3]Lave J, Wenger E. Situated Learning: Legitimate Peripheral Participation. Cambridge, Cambridge University Press: 1991.

SHORT ORAL O 75

Objective Structured Clinical Examinations (OSCEs) Predict Outcomes of Work Based Placements (O 13 in programme)

Wanstall, H.

Communication is the key to Dietetic practice but is difficult to measure by traditional assessment techniques such as essay style exams or multiple choice question papers (Pender & de Looy 2004). Several British Universities offering courses which lead to eligibility to register as a Dietician with the Health Professions Council (HPC) use Objective Structured Clinical Examinations (OSCE's) as a means of formative assessment of communication skills. However, none have formally examined the ability of the OSCE to predict which students will do well on pre-registration work based placement. OSCE's were introduced at London Metropolitan University in the spring of 2007 for both undergraduate and postgraduate students due to undertake placements later in that year. The aim of this study was to examine the hypothesis that OSCE's are a reliable predictor of performance on placement. Sixty-five students took part in the OSCE's on 3 different dates and all passed. Five did not proceed to placement and were excluded from the analysis.

Of those that scored less than 60% in the OSCE's, only 43% passed, whereas of those that scored more than 70%, in the OSCE, 77% passed their placement. Spearman's rank correlation test indicated a weak positive correlation ($t=2.56$, $p<0.01$) between the OSCE scores and the outcome of clinical placement.

POSTER P 01

Development of a National e-Learning Resource for Safe Communication (P 144 in programme)

Baker, A[1]., Stevenson, JK[1]., Jackson, C[2]., Ker, J[1].

Why:
Communication can account for 80% of health care practitioners' time (Coiera 2002) and communication difficulties have been identified as the primary cause of errors in patients' deaths in health care practice (Lingard 2005). Given the complexity of health care delivery, communication is crucial to safe completion of tasks and efficient teamwork (Leplat 1991, Reader 2006).

What:
An interactive resource was developed to enable health care practitioners to develop their knowledge and skills in learning safe communication practices. It raises awareness of the impact of safe communications on patient care.

How:
A standard development process ensures that packs are evidence-based, quality assured and developed with representation from the relevant professional groups from different geographic locations within Scotland to maximize transferability and ease of implementation.
The resource is complemented by a series of workshops followed by a period of supervised practice in the workplace.

Benefits:
This multi-professional clinical skills resource aims to establish a standardised training for learning safe communication skills for medical, nursing and relevant allied health care professions.

References:
Coiera EW (2002) Health Informatics *EMJA* **176 (1):** 20
Leplat J (1991) Qrganisation of Activity in Collective Tasks. In J. Rasmussen, B. Brehmer and J. Leplat (Eds.) *Distributed Decision Making : Cognitive Models for Cooperative Work*. London : John Wiley and Sons.
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Reader T, Flin R, Lauche K, Cuthbertson B. (2006) Non-technical skills in intensive care. *British Journal of Anaesthesia* **96**: 551-559

POSTER P 02

Using summaries of workplace based assessment to focus teacher development: a feasibility study (P 160 in programme)

Bartlett, M., McKinley, RK.

Keele University School of Medicine

Context:
Serial Workplace Based Assessment (WBA) and feeding forward of their summaries is core to our spiral consultation skills programme. Each student will have a minimum of 11 WBA. The written summaries allow an insight into their quality.

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

Results:
The quality scale was piloted on 131 year 3 reports. The correlation (Spearman's rho) between assessors' scores was 0.91, Cohen's Kappa was 0.475 (moderate agreement). The full range of scores (0-7) was obtained, the IQR was 1 to 4.5. The quality assessment took 5 hours of assessor time (approximately of 2 minutes 10 seconds per report). We will report on the year 4 data at the conference.

Discussion:
Initial results suggest this approach can identify a wide range of WBA quality, is feasible and could be used to focus teacher development.

POSTER P 03

Web-based video and feedback in the teaching of cardio-pulmonary resuscitation (P 12 in programme)

Bowden, T., Rowlands, A., Buckwell, M., Abbott, S.

Knowledge and skills relating to cardiopulmonary resuscitation tend to be lost over time (Hamilton, 2005; Einspruch et al, 2007). Students, who generally have even less exposure to rare events than qualified professionals, often lack competence in life support (Madden, 2006). It is therefore important to find teaching methods that encourage the retention of knowledge and skills. The combination of resuscitation simulation sessions with online video records and online feedback allows for an enduring record of skills sessions to assist students in retaining and revising their learning.

This poster reports a qualitative evaluation of such a combination used in inter-disciplinary sessions for volunteer nursing and medical students. Methods included focus groups and free text questionnaires; data were gathered from fourteen students and three teachers. Students had used the online material in a variety of personal ways, and found that the addition to their learning was significant. Their memories of the simulation sessions and of the feedback received immediately afterwards were incomplete, and repeated viewing enabled them to identify good and poor practice with more confidence, and to reflect more carefully on their own and others' practice. Teachers found it easier to give more detailed feedback when given the chance to watch the video than immediately after the session. All felt that the sessions would ideally be embedded in the curriculum.

References:

Einspruch, E., Lynch, B., Aufderheide, T., Nichol, G., Becker, L., 2007. Retention of CPR skills learned in a traditional AHA Heartsaver course versus 30-min video self-training: a controlled randomized study. Resuscitation 74 (3), 476-86.
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POSTER P 04

Longitudinal Rural Placements: Impact on Hospital Clinical Supervisors (P 79 in programme)

Connolly, M., Sweet, L., Campbell, D.

Year Four medical students undertaking longitudinal rural placements at Monash University East Gippsland Regional Clinical School are supervised in hospital settings by medical and nursing clinicians who provide education and supervision through an interprofessional collaborative environment. Studies have investigated the impact of medical students undertaking longitudinal placements in General Practices; however, little is known about the impact of student longitudinal placements on clinical supervisors in the hospital environment. This study aimed to explore the educational impacts and benefits gained from supervisory responsibilities.

Fifteen health professionals participated through interviews. Utilising thematic analysis three major themes were developed: changes to the supervisor, change in the hospital learning culture and student usefulness. The major benefits to hospital supervisors included reflective practice as a practitioner and to patient care, professional role modelling and increased enthusiasm for learning, updated clinical skills, and motivation for further learning interactions. Hospital culture became more vibrant, patients received additional care and patient knowledge gaps were filled.

An interprofessional approach for clinical supervision in hospital settings provided symbiotic relationships, enhanced learning for supervisors and students, generated an understanding of each other's clinical skills, roles and values, and raised an awareness of the importance of working collaboratively for better patient outcomes.

POSTER P 05

Evidence for a criterion-referenced assessment of communication skills for speech and language therapy students (P 179 in programme)

Cruice, M., Farrington-Douglas, C., Richards, R., Stibbs, C., Kilburn, M., Pointer, M.

Communication skills are fundamental to quality hospital and community healthcare. Speech and language therapy students need both *technical communication skills* (in terms of gathering and giving information to patients, families, and team members) and *clinical communication skills*, that is, being able to modify their own verbal and written language to support the communication needs of their patients with communication difficulties. During students' training, it is difficult to address both technical and clinical communication skills simultaneously, as well as ensure that students gain sufficient experience through clinical placements to acquire both sets of skills. Students are also typically expected to acquire good communication skills alongside developing other skills in clinical placements, such as assessing, diagnosing, therapy planning, team working, and clinical writing, as well as learning professional values and attitudes. To address this need, through academic and clinical partnership, authors have jointly developed a Communication Skills Intensive (CSI), which is a 5 day programme focused almost entirely on communication skills development. This paper reports one of the components of the CSI, the Structured Communication Skills Checklist (SCSC), and discusses its value as a criterion-referenced assessment in shaping skills development and acquisition.

Thirty-five speech and language therapy students have volunteered to attend the CSI in March 2011, and will be placed in several inpatient hospital and community settings across London where adults with acquired neurological conditions are being treated by multidisciplinary teams, as part of their normal ongoing care. This represents an expansion of the piloted programme in January and April 2010. In pairs and small groups, students will follow a carefully structured programme of learning activities, and undertake multiple individual interviews with patients or clients; observe their peers; and interact with members of the multidisciplinary team and family members where appropriate. Using unobtrusive small flip cameras, students will video their interactions with patients and clients, and then use the SCSC to appraise their own performance. Peer and professional assessment will also be collected and used in discussion to reflect on students' skills development over the 5 day period. In particular, students compare their day 1 performance with day 5 performance, and reflect on gains or changes in skills. The SCSC contains 36 individual elements of technical and clinical communication skills, which are graded into 5 levels of performance, enabling students to appraise their own performance, and identify ways to improve for future interactions. This paper will report on (1) the relationship of students' self assessment on day 1 and 5 of the programme, (2) the relationship between students' and peers' ratings, and (3) the relationship between students' and professionals' ratings; to determine the value of the SCSC as a formative feedback and assessment tool in developing students' communication skills.

Students who participated in the 2010 pilots (n = 20) reported positively: "*Initial interaction is a great area to focus on as taps into a fear we all had and is very transferable"*; *and "The most helpful activity was videoing initial interviews and watching them back".*

POSTER P 06

An Online OSCE Management Information System: OMIS (P 187 in programme)

Cunningham, D., Flaherty, G., Kanagaratnam, B., Kropmans, T.

Context and Setting:
Objective Structured Clinical Examinations (OSCEs) are frequently used for high stakes assessment in medical and healthcare education. Traditionally low level technology has been used to capture assessment data and to analyse results. Paper-based assessment methods do not facilitate analysis of statistical variables including internal consistency of assessments and inter-examiner variability. Educational decision making depends upon accurate integration of assessment performance characteristics which are not easily yielded using paper-based assessment tools.

Why was the idea necessary:
Decisions regarding the clinical competence of healthcare students and practitioners should be based on the results of examinations which are valid, reliable and based on accurate, appropriate, objective and unbiased information. Allowing incompetent healthcare practitioners and students to proceed based on the results of unreliable assessment instruments may ultimately underline the quality of patient care they will provide in the future.

What was done:
OMIS was developed to capture OSCE data in real time. It comprises of a highly dynamic, interactive and user friendly Web 2.0 platform with a station form creation tool, an assessment tool and a data analysis tool. Data can be exported to other statistical packages for further analyses e.g. Excel, SPSS, GENOVA. OMIS was developed by medical educators and information technology experts and has been made commercially available.
We compared OSCE results retrieved from the traditional paper-based examinations with results gathered and produced using OMIS. We assessed the internal consistency of each of the assessment forms and stations used in the OSCE.

Evaluation of results and impact:
Using the paper trail method, the overall results revealed that only one student failed while the remaining 52 students passed. All stations except one differentiated between the various levels of competence of students ($p < 0.05$). The failing student failed in 7 out of 10 stations. Due to instant online data analyses the paper trail decisions are *'unreliable'* **or '***not defendable'.* Students that initially passed failed in 3 to 4 out of 10 stations. Internal consistency (Cronbach's Alpha) was low and varied between 0.58 and 0.64 depending on the assessment form (station) used. Apart from the non-discriminative station, marks did not differ statistically significantly between observers. Excluding the non-discriminative station from the analyses, 19 students out of 53 (35%) appeared to be incompetent and should fail. Analysing the paper trail by manually entering the data into a spreadsheet would not have identified this anomaly immediately after finishing the OSCE.

Since February 2009 we have validated OMIS in all of our OSCE's at the medical school.
We believe that an online OSCE Management Information System repeats a significant technological development in health professional's education which will assist examiners in producing high quality assessments of clinical competence and improve their ability to recognise poorly performing examination stations, students and examiners. Further research should explore the utility of OMIS in OSCE examiner training in the provision of feedback to students.

POSTER P 07

Clinical Skills Logbooks: Lessons learned (P 190 in programme)

D'Souza, K., Basham, L., Carne, R., Kramer, D., Crotty, B.

School of Medicine, Deakin University, Victoria, Australia

Background:
Medical education today is delivered in clerkships at multiple sites, with higher student numbers and less opportunity for students to practice skills/ procedures on patients[1]. Increased concern over patient safety puts pressure on universities to 'sign off' on student experience. Therefore, using logbooks in clerkships remains a timely and important topic[2].

Purpose:
We introduced a logbook to assist medical students seek, perform and count clinical skills/ procedures in simulated and clinical environments; and assist Faculty monitor experience across campuses (metropolitan/regional/ rural hospitals; and rural General Practice settings).

Methods:
A Clinical Skills Passport, based on one used in Birmingham, was implemented, containing skills, procedures and attendances deemed essential by Year 3 Curriculum Working Groups, benchmarked against the Australian Curriculum Framework for Junior Doctors. The Passport/ logbook was paper-based, with online data backup and assessment. Student feedback and logbook data were analysed.

Results:
Passport implementation commenced in 2010 (Year 3, first clinical year). Difficulties were encountered by Faculty (online data assessment time-consuming) and students (online data entry complex, time consuming; few opportunities to perform some skills). Data capture methods were modified midyear in response to student feedback, and students were involved in logbook redesign for 2011. Cross campus data was analysed.

Conclusions:
Logbooks remain useful, however, their design is crucial as they must be feasible, acceptable, accurate, complete, reliable and valid [2]. Interestingly, in a literature review, nearly all studies were single-institution[2], reflecting that logbooks are being developed concurrently by individual sites at considerable financial and time expense. We believe sharing our lessons learned will assist others with logbook design and implementation.

References:
1Crotty B. Medical Journal of Australia 2005
2Denton G. Teaching and Learning in Medicine 2006

POSTER P 08

Interprofessional Education (IPE) for Postgraduate Students – an application in the context of reducing maternal mortality in Indonesia
(P 194 in programme)

Emilia, O.

IPE is occasion when members or students of two or more professions learn with, from and about one another to improve collaboration and the quality of care (Hammick et al, 2007). In this activity participants are targetted to be 1) aware of their perceptions on inter professional work and 2) practice the IPE to work together to reduce maternal mortality in the community.

A pre post test study was conducted to two groups of students (12 students) from different study programs that related with reducing maternal mortality (included obgyn, paediatrics, health management, hospital management, midwives, anesthesiologist). This group was introduced to Bottleneck method in analysing and developing program in reducing maternal mortality. There was pre and post test measurement that include their perception of competence and other profession.

The results showed that their perception about competence wass increasing particularly in conducting teamwork. Other important value that came out was that students felt understanding other profession competencies better which also may improved their understanding about their limitation as profession. As a whole the IPE could be effective and also convey more other value for students which difficult to be described in mono professional education.

POSTER P 09

Systematic training of non-technical skills for the entire staff of a thoracic intensive care unit (P 136 in programme)

Erichsen, S[1,2]., Otto, B[1,2]., Douhan, A[2]., Haddleton, E[1].

Akademiska Sjukhuset, [1]Clinical Skills Centre, [2]Thoracic intensive care unit, Uppsala, Sweden.

Introduction:
In health care, the role of non-technical skills as an important factor for patient safety is now generally recognised. However, systematic training of non-technical skills has not yet been established as an essential element of health care professionals' continuing education. Simulator training has been shown effective in training non-technical skills.

Objective:
The introduction of systematic training in non-technical skills (teamwork and communication) for the entire staff at a thoracic intensive care unit.

Methods:
All 140 health care staff (nurses, nurse assistants, thoracic surgeons and anaesthetists) of a thoracic intensive care unit participated in simulator training, focusing on teamwork and communication. The training was performed in 16 sessions, with a multiprofessional group of 8-9 participants per session. Each session started with a discussion about effective teamwork and communication, followed by two simulator scenarios with debriefing sessions.

After training, the participants completed a written qualitative evaluation.

Results:
The participants appreciated the relevance of teamwork and communication as tools to facilitate their work and enhance patient safety. The method of training, using simulator scenarios with debriefing, was judged to be realistic and very instructive.

Conclusion:
The entire staff of an intensive care unit can be systematically trained in non-technical skills by using simulator training sessions.

References:
Leonard M, Graham S, Bonacum D. The human factor: the critical importance of effective teamwork and communication in providing safe care. Qual Saf Health Care 2004;

13 (Suppl 1): i85-i90.
Reader T, Flin R, Lauche K, Cuthbertson BH. Non-technical skills in the intensive care unit. Br J Anaesth 2006; 96: 551-9
Issenberg BS, Mcgaghie WC, Petrusa ER, Gordon, DL, Scalese RS. Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. Med Teach 2005; 27: 10-28

POSTER P 10

Interprofessional clinical simulation in critical care for final year medical, nursing and midwifery trainees (P 50 in programme)

Fordham-Clarke, C., Bassett, S., Gill, E., Thomas, L., Jaye, P., Richardson, S., Marron, E., Slonina, J., Broughton, S., O'Neill, B.

Research investigating an integrated clinical simulation session using low and high fidelity manikins with simulated patients and clinical communication, offered as interprofessional training and assessment in clinical care and patient management. The professions included in this research were final year medical, nursing and midwifery students. Debriefing and feedback episodes throughout offered personal feedback and a seminar on the key ethical issues that arose will complete the session. This innovative approach aims to advance clinical skills education and practice by addressing the recognised problems in current health care training and lack of preparation in team working, crisis resource management, and clinical communication.

This poster illustrates the first stage of educational research into interprofessional clinical simulation as a learning and teaching pedagogy and the influence on: patient-safety outcomes, health professional behaviours and institutional cultural change.

The unique components of this study are:
- Integrated clinical communication, human factors, technical and non-technical perspectives.
- The focus on team faculty modelling and teaching interprofessional practice to reinforce team collaboration as the most effective way of meeting the goals of patient-safety.
- The development of a Team OSCE (T/OSCE)
- Further insight into effective faculty performance and teacher/learner dynamic

Faculty development, design and delivery of a clinical simulation scenario using part-task training, high fidelity sim man/woman and a simulated relative is briefly outlined. This is a triangulated long-term study using research samples from undergraduate and post-graduate health professional groups. Early raw research data is analysed using qualitative thematic analysis, ethnographic observation, quantitative likert rating scores and free text. Boxes with faculty and student results are prominent in key points of text. As expected, students in the first round rated the experience highly. With each stage of development we aim to gain depth and perspective to add to the knowledge and skills base of clinical simulation and its worth in health professional education.

POSTER P 11

Using an Objective Structured Clinical Examination (OSCE) to assess the competence and confidence of doctors in recognising and treating the acutely ill patient in clinical practice
(P 118 in programme)

Frame, F., Gidden, D.

Background:
The Safer Patients in Northamptonshire Group (SPNG) provide competency based educational programmes for staff across the Trust. As part of this initiative, how acutely ill patients are recognised and treated was explored during the recent Patient Safety Week.

The Objective Structured Clinical Examination (OSCE) is an accepted, valid and reliable tool that can be utilised to evaluate clinical skills and competency[1,2]. Standard setting was undertaken to create a five-minute OSCE station based around a case study derived directly from clinical practice. A checklist marking scheme was produced to assess three core skill sets: interpreting a 12 lead ECG, initiating basic life support and facilitating advanced life support techniques[3]. A total of 40 Doctors from a range of clinical grades and specialities individually completed the OSCE. The results were collated and analysed.

Clinical Relevance:
The SPNG has a vast impact on patients and staff, improving quality of care through competency based training, development and evaluation. The results of this OSCE will be disseminated to staff and training needs addressed.

Evaluation:
Significant differences were identified in both competence and confidence across the grades, specialities and skill sets. This has implications for future competency-based assessment, training, and clinical practice[4].

References:
1. Harden, R. McG., Stevenson, M., Wilson Downie, W. & Wilson, G.M. 1975, 'Assessment of clinical competence using Objective Structured Examination', *British Medical Journal*, vol. 1, pp. 447-451
2. Smee, S. 2003, 'ABC of learning and teaching in medicine: skill based assessment', *British Medical Journal*, vol. 326, pp. 703-706
3. Burton, N. 2009, *Clinical Skills for OSCEs,* Scion Publishing Limited, Oxfordshire
4. Carr, S.J. 2004, 'Assessing clinical competency in medical senior house officers: how and why should we do it?' *Postgraduate Medical Journal*, vol. 80, pp. 63-66.

POSTER P 12

Taking the lead in Paramedic Science Education - Clinical simulation with a classroom-based ambulance (P 08 in programme)

Godson, N., Garret, M.

Paramedic Science Education, over the past decade has witnessed a significant increase in the use of simulation technology for teaching and assessment of paramedic skills. A contributing factor to this includes real life, learning environments that can limit opportunities to practice clinical skills and the public focus on medical errors and the need to improve patient safety in the hands of pre hospital care workers. The use of a simulated ambulance at Coventry University aims to meet these issues.

The ambulance simulator can be readily available at any time and can reproduce a wide variety of clinical conditions on demand. Under graduate students from all professions can carry out the practice required to master emergency treatment using simulation-based education, in a risk-free environment.

Decision making and critical thinking skills in a non-threatening, safe, environment enhances skills that may take longer to learn in real-life situations. Examiners can also use simulators for reliable assessments of competence in multiple domains. The ambulance saloon has been taken from an accident damaged Mercedes Sprinter chassis. This layout allows academic teachers to recreate many of the difficulties encountered on a daily basis by ambulance crew. Such potential problems include; being able to only access one side of the patient; limited space in which to conduct Cardiopulmonary Pulmonary Resuscitation, not to mention working in poor light conditions.
This poster provides a brief overview of an educational innovation developed at Coventry University.

References:
Bradley P. The history of simulation in medical education and possible future directions. *Medical Education.* 2006 40:254-262

Medley CF, Horne C. Using Simulation technology for Undergraduate Nursing Education. *Journal of Nursing Education*.
2005 44 1: 31-33

POSTER P 13

***"I wish you were the nurse that had looked after my mother!"* The voice of the volunteer patient: verbal face-to-face feedback to pre registration nursing students (P 148 in programme)**

Goodhand, K.

The simulated patient volunteer programme in the Robert Gordon University, Faculty of Health and Social Care is an integral part of the curriculum, providing the students with a "real life" situation and patients to practice. This is seen as a vehicle to improve student performance in a safe environment and to increase patient safety and satisfaction.

Volunteers, students and academic staff have anecdotally related that feedback by patient volunteers to students, particularly about the soft skills of communication and interpersonal relationships are a powerful tool. It was recognised that this warranted exploration as currently there was no formal process for volunteer patients to deliver feedback currently in place. Bokken et al (2009) supports the need for investigation – finding that although simulated patients gave feedback, and this was recommended, the training was largely heterogeneous.

Volunteer patients attended a 3 hour workshop aimed at preparing them to give feedback to students. The volunteer patients were then were engaged to give verbal face to face feedback to stage third year pre registration nursing students. This was evaluated by use of paper based questionnaires and focus groups using online blogs. The views of simulated patients, students and staff facilitating the sessions were obtained.

Reference:
Bokken, L., Linssen, T., Scherpbier, A., van der Vleuten, C. and Rethans, JJ. (2009) Feedback by simulated patients in undegraduate medical education: a systematic review of the literature. Medical Education in Review. Blackwell Publishing 43:202 – 210.

POSTER P 14

The incidence, causes and prevention of needle stick injuries in the student nurse population: A review of the literature (P 167 in programme)

Hambridge, K.

School of Nursing & Midwifery, University of Plymouth, Plymouth, Devon

Background:
Needle stick injuries (NSIs) have been a potential source of harm to nurses since their introduction into the field of medicine administration. These types of injuries can have a huge psychological and economic impact on the individual and the healthcare organisation. Blackwell et al (2007) state that despite the growing body of knowledge concerning NSIs in practicing nurses, there has been little research focusing on NSIs in the student population. This poster presentation will review literature produced by research studies from numerous countries worldwide which explores:

- The various diseases linked to NSIs
- The psychological impact on the individual student nurse when a NSI occurs
- The economic impact on the individual student nurse and the organisation when a NSI occurs
- The incidence of NSI in the student nurse population in a variety of studies worldwide
- The incidence of the under-reporting of NSIs in the student nurse population
- The suggested reasons for the under-reporting of NSIs in the student nurse population
- The location of NSIs
- When NSIs occur in the student nurse population
- Why NSIs occur in the student nurse population
- The evidence-based recommendations for the prevention of NSIs in the student nurse population

Reference:
Blackwell, L Bolding, J Cheely, E Coyle, E McLester, J McNeely, E Odom, L Owens, H Porter, B Dawn, K Suite, P Swofford, A Lawson, T (2007) Nursing students experiences with needlestick injuries Journal of Undergraduate Nursing Scholarship Fall 9 (1).

POSTER P 15

Employing students' multilingualism and language diversity in teaching and learning (P 55 in programme)

Hammond, A., Adam, J., Pearce, J., Collins, S.

Before our innovative clinical skills session 'Interpreting in Consultations', we conducted an annual survey of languages spoken by students on admission, in 2006, 2007 and 2008. From a response rate of 94% we noted that 28% of students are advanced/fluent speakers of language(s) other than English and a total of 48 languages are spoken.

The session, 'Interpreting in Consultations', involves first and second year students who speak the same language other than English, role-playing an 'interpreted' consultation.

Feedback from tutors and students following the session shows that using different languages serves multiple, valuable purposes, highlighting
- issues encountered with interpreters
- challenges of 'medical' language
- difficulties in transmitting a patient centred approach
- how linguistic and cultural sensitivities are lost in translation.

Student linguistic diversity is considerable and not used to its full potential: the single clinical skills session we report suggests there is much more to be gained. The education we design and deliver may fail to recognise what patient-centred-ness means in different languages and cultures.

Future research should: consider how to make best use of multiculturalism and linguistic diversity; explore how students' awareness of, and competence in, different languages and cultures can be developed and maintained;

POSTER P 16

Introducing Peer Physical Examination into Years One and Two of a Medical School curriculum
(P 56 in programme)

Hammond, A., Henderson, J., Asghar, A., Collins, S.

We are a new medical school (now into our eighth year) and until the 2008/09 academic year our Year One and Two students acquired physical examination skills by examining healthy volunteers. The Year One cohort in 2008/09 were the first to acquire these skills using Peer Physical Examination (PPE), performing the examinations on each other, and this was rolled out to involve all Year One and Two students this academic year.

Introducing PPE involved a culture shift within the medical school, training of existing and new tutors and revisions to our written study guide material.

Over the past eighteen months we have overcome several practical and ideological challenges during the introduction of PPE as a teaching method.

Our poster explains our teaching methods, the challenges encountered and the pragmatic ways in which we have navigated a course through these challenges at both an individual and organisational level. We are now able to give much clearer guidance to students and tutors with the benefit of what we have learnt over the past 18 months.

POSTER P 17

Developing online resources for a National Digital Learning Repository
(P 158 in programme)

Kingston, L., Burke, E., Fahy, A., Johnson, K., McArthur, C., Moloney, M., Murphy, J.

Work in Progress

Context and Background:
The National Digital Learning Repository (NDLR) is a free and open online community of resources designed primarily for faculty of higher education in Ireland to share their learning materials. The aim of this funded project is to design, develop and evaluate a suite of videos relating to the principles of infection prevention and control, for use across healthcare undergraduate programmes within an Irish context. The value of the project lies in the fact that the resources will be shared online on the National Digital Learning Repository thereby avoiding duplicity of work in this field in a sustainable way.

Process:
A suite of nine scenario based recorded videos (each approx 5-10 minutes long) and a bank of multiple choice questions has been developed. The umbrella subject area is infection prevention and control, underpinned by international evidence based standard precautions.

Evaluation:
The videos will be evaluated by students and staff via questionnaires. Findings will be included in the poster presentation.

Conclusion:
Following the 2010 global pandemic of Influenza A (H1N1 virus) there have been national calls for competency of all health care students in the core principles of infection prevention and control. These inter-disciplinary videos respond to that call. However the long term efficacy of the videos is a challenge given the ever evolving nature of health care practices in this field.

POSTER P 18

Is high impact simulation training effective in improving medical student's management of the acutely ill surgical patient?
(P 114 in programme)

Knight, SR., Newman, A., Rowley, L., Orton, C.

High impact simulation is becoming increasingly used in medical education to improve the application of theoretical knowledge to practical situations (1). Students from Leicester University's Surgical Society (Leicester SCRUBS), with the aid of Clinical Skills Facilitators, organised a one-day conference for 60 medical students embracing high impact simulation training to evaluate its use in the management of the acute surgical patient.

The conference included 4 simulation stations, each covering an area of practice specific to acute surgical patient management (presenting with pre-operative, recovery and post-operative problems) facilitated by two Core Surgical Trainees alongside Clinical Skills Facilitators. Students completed a multiple choice questionnaire (max score 20) prior to, immediately after, and four weeks post-conference, with results providing data on knowledge gained and retained following high impact simulation training.

The pre-conference mean score (11.9) was significantly improved following the conference (14.6 [$p<0.0001$, $t=-4.19$]), an improvement maintained four weeks later (14.6). Furthermore, student's confidence in performing specific skills required to manage the acute surgical patient correlated with the improvement seen in knowledge.

This data demonstrates the potential of high-impact simulation in medical education to both improve and maintain student knowledge in the management of the acute surgical patient.

References:
(1) Weller, J.M. (2004), Simulation in the undergraduate medical education: bridging the gap between theory and practice. *Medical Education*; 38: 32-38

POSTER P 19

Qualities and characteristics appropriate for teaching clinical skills
(P 127 in programme)

McQueeney, L.

University of Wollongong, Australia

There are certain people involved in education that stand out prominently to students. Here a factor in the interaction has caused their teaching to be memorable (Barth 2008; Walker 2010). These teachers inspire learning and students may even model themselves on features that rouse them (Donnon, Delver & Beran 2010). They may be remembered for being motivating, enthusiastic, passionate, or even clinically competent (Rich 2009). While there is literature available about qualities and characteristics that students admire in teachers who educate in a classroom, this presentation questions whether there is a difference in the qualities and characteristics that teachers exhibit when teaching clinical skills.

The presentation aims to impart information relating to qualities and characteristics of educators that students state influence their ability to learn clinical skills. This will include information gained from performing a review of the literature regarding the qualities students appreciate in teachers and a personal teacher evaluation while teaching clinical skills to students. Recurring themes will then be identified and compared. The presentation will be of interest to people involved in recruiting and who are interested in excellence in teaching and learning.

References:
Barth, MM 2008, 'Deciphering student evaluations of teaching: A factor analysis approach', *Journal of Education for Business*, September/October 2008, pp. 40-46.
Donnon, T, Delver, H & Beran, T 2010, 'Student and teaching characteristics related to ratings of instruction in medical sciences graduate programs', *Medical Teacher*, vol. 32, pp. 327-332.
Rich, VJ 2009, 'Clinical instructors' and athletic training students' perceptions of teachable moments in an athletic training clinical education setting', *Journal of Athletic Training*, vol. 44, no. 3, pp. 294-304.
Walker, RJ 2010, 'Twelve characteristics of an effective teacher: a longitudinal, qualitative, quasi-research study of in-service and pre-service teachers' opinions', *Educational Horizons*, vol. 87, no. 1, pp. 61-68.

POSTER P 20

Vertical" Integration of Clinical Skills Teaching: Helping medical students make the transition from "Systematic" to "Holistic" (P 185 in programme)

McVeigh, A., Wilson, D.

Background:
Many medical students entering Year 3 find it difficult and daunting to progress to Ward based Clinical Teaching. Problems highlighted by teaching staff and students include difficulties dealing with "Real Cases", the ability to perform focused clinical examinations and diagnostic reasoning skills.

Queens University Medical School adopts the "systems" based approach to the teaching of Clinical Skills during the early undergraduate years enabling horizontal integration with other disciplines.

However this traditional systems-based approach to teaching history taking, examinations and procedures did not prepare the students for their transition from Year 2 to Year 3.

"Integration of Clinical Skills" teaching sessions have been introduced at the end of the Year 2 Clinical Skills Course. These sessions involve full case-based discussions, "focused" clinical examinations and consideration of differential diagnoses.

Immediate written student feedback has been very positive – "brings everything together", "highlighted the importance of adapting the examination to patient needs", "it prepared the mindset for year 3".

This poster submission provides a pictorial representation of how "Vertical Integration" has been integrated into our Clinical Skills teaching. Further evaluation is currently in progress with a view to re-evaluation by the students on entering Year 3.

References:
[1]Yudkowsky,R., A hypothesis-driven physical examination learning and assessment procedure for medical students: initial validity evidence. Medical Education 2009:43:729-740
[2]Martens,M.J.C., Student views on the effective teaching of physical examination skills: a qualitative study. Medical Education 2009;43: 184-191

POSTER P 21

Efficacy of Cardiopulmonary Resuscitation in the Dental Practice (P 97 in programme)

Morse, J., Orr, G., Thomas, D.

In the current recommendations for providing cardiopulmonary resuscitation (CPR) in dental practice it has been suggested, that there is no difference in the efficacy of performing CPR in either the dental chair or on the floor.[1]

From a small pilot study carried out in a controlled setting, the study team have found that there is a difference in the efficacy between the cardiac compressions performed in the chair and on the floor especially in relation to the realism of ambulance response times.

The difference in this efficacy of CPR could be even greater following the release of the new resuscitation guidelines which have increased the depth of compressions from 4-5cm to 5-6cm. With the change in the resuscitation guidelines, thus it is hypothesised that an amendment to the current advice shown by the study data, could assist in an increased patient survival should CPR need to be performed in the dental practice.

Having just received ethical approval to proceed with the study, by the time of the conference we should have almost final data to share in regards the findings of this interesting and potentially lifesaving study.

References:
[1]Lepere, AJ. Finn, J. Jacobs, I. Australian Dental Journal, 2003;48(4)244-247

POSTER P 22

Health literacy: A pilot study on student views and training
(P 149 in programme)

O'Connor, V., Goodwin, S., Tom, C., Nielson, T., Engels, M., Elly, M.

The problem:
Health literacy has been identified in Australia as a problem affecting >20% of the population. What do medical students think about this? How should this be addressed in the curriculum?

What was done:
Three modules were developed for a Health Literacy pilot study. The first set out the problem and opened an interactive discussion with 6 x 12 student groups after first developing their own definition. The second session required the student groups to produce a role play to illustrate how they would communicate with a patient of low health literacy in a given scenario. Finally the students demonstrated their skills with four simulated patient scenarios.

A marking scale was developed based on the tutor experiences with the students. This marking sheet was released to the students prior to a 20-minute OSCE station that addressed a patient with a health literacy problem. Three student focus groups and a tutor focus group provided qualitative feedback on this pilot study.

Importance:
Students demonstrated a low level of knowledge about the size of the health literacy problem in the community. The discussions led to recognition by students of the responsibility of medical practitioners in transferring information to patients with low health literacy. Practice with simulated patients highlighted issues for the students with attitude and behaviour in these clinical settings. The students' performance in the OSCE was assessed.

POSTER P 23

The implementation of multiprofessional training of teamwork and communication for undergraduate nursing and medical students
(P 142 in programme)

Otto, B., Haddleton, E., Erichsen, S., Colliander, M.

Akademiska sjukhuset, Clinical skills centre, Uppsala, Sweden.

Introduction:
Traditionally, the curricula for undergraduate education programmes in nursing and in medicine emphasise theoretical knowledge and practical skills. The importance of multiprofessional teamwork and non-technical skills for effective and safe work in health care is now increasingly recognised. However, multiprofessional training of non-technical skills is not yet an essential element of undergraduate health care studies.

Objective:
The introduction of systematic multiprofessional training of non-technical skills (teamwork and communication) for undergraduate students in nursing and in medicine.

Method:
The clinical skills centre at Akademiska sjukhuset and the medical faculty´s committee for undergraduate studies, Uppsala university, cooperated to introduce simulator training of teamwork and communication for all last year students of the nursing and of the medical undergraduate programmes.

Results:
The undergraduate programmes of nursing and of medicine, and the clinical skills centre, have adapted the curricula and the schedules of the teaching programmes, to offer multiprofessional simulator training of teamwork and communication to all 80 nursing and 65 medical students during their last year. This will take place in groups comprising of 4-5 nursing students, and 3-4 medical students, starting January 2011.

Conclusion:
The process of implementing multiprofessional non-technical skills training for undergraduate students, with special regards to logistical aspects, will be discussed.

References:
Leonard M, Graham S, Bonacum D. The human factor: the critical importance of effective teamwork and communication in providing safe care. Qual Saf Health Care 2004; 13 (Suppl 1): i85-i90.
Issenberg BS, Mcgaghie WC, Petrusa ER, Gordon, DL, Scalese RS. Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. Med Teach 2005; 27: 10-28

POSTER P 24

Assessing Clinical Anaesthetic Skills in the Simulated Workplace using High Fidelity Simulators (P 108 in programme)

Paton, C., Finlay, C., Peacock, S.

Background:
The Medical Education Clinical Skills team worked with Consultant Anaesthetists to deliver simulated training and assessment of clinical skills to a group of anaesthetic trainees during their clinical attachment. Real life exposure to the difficult airway scenario is ad-hoc and does not allow for a planned assessment of clinical skills. Simulation centres allow recreation of the clinical setting in a protected environment[1].

Aim:
The aim of the course was to provide anaesthetic clinical skills training and Direct Observational Procedural Skills (DOPS) assessment in a realistic, safe and controlled environment to new trainee anaesthetists.

Method:
Three training sessions were held prior to the DOPS assessment which incorporated (1) basic airway skills, (2) failed rapid sequence induction. The candidates were assessed by College Tutors from each of the district general hospitals on their failed rapid sequence induction skills. A high-fidelity simulator (SimMan 3G) was used to realistically simulate the difficult airway scenario. SMOTS technology was utilised for the assessment process and constructive supportive debriefs were carried out by consultant anaesthetists.

Evaluation:
Both the trainees and the faculty were satisfied that the use of simulation to provide training and assess key skills was realistic and reliable.

Reference:
[1]Ker J., Bradley P Simulation in medical education Understanding Medical Education series 2007 ASME ISBN 978-0-904473-47-6

POSTER P 25

Advancing Clinical Skills Education & Practice by utilising a new Medical Education Training Centre to deliver 1st taste of simulation training to 4th year medical students
(P 111 in programme)

Paton, C., Peacock, S., Donaghy, S., Finlay, C.

Background:
The Recognition and Management of Sick Patient (RMSP) programme is currently delivered to all 4th year undergraduate medical students from Glasgow University following successful pilots in NHS Lanarkshire. The course focuses on developing systematic assessment skills in relation to the management of the sick patient. Simulation is becoming an essential component of most medical education programmes[1] and the creation of a METC has enabled RMSP training to be advanced further by utilising this technique.

Aim:
To provide comprehensive simulation training as part of a programme designed to develop systematic approach to patient assessment skills.

Method:
A simulated ward environment with high fidelity simulation equipment (3G SimMan) is used to present a variety of scenarios which involve assessment and management of patients presenting with a range of acute medical and surgical conditions without risk.[2,3] Peer observation and video debrief is enabled using the SMOTS system in addition to the use of facilitator debrief and peer appraisal.

Evaluation:
The course has been running since August 2010 and has been highly evaluated to date. Over the academic year 244 students will receive this training.

References:
[1]Ker J., Bradley P. Simulation in medical education Understanding Medical Education series 2007 ASME ISBN 978-0-904473-47-6
[2]Smith et al. Undergraduate Training in the care of the acutely ill patient: A literature review. Intensive care medicine (2007)33:901-907
[3]Morgan P J et al Applying theory to practice in undergraduate education using high fidelity simulation. Medical Teacher (2006) Vol 28 No 1: 10-15.

POSTER P 26

An Evening on Call – Clinical Prioritisation and Communication
(P 109 in programme)

Peacock, S., Donaghy, S., Paton, C., Finlay, C., Scott, H.

Background:
Goldacre et al's 2002 study[1] showed that 40% of undergraduates felt under prepared for work by their undergraduate curriculum. The Department of Medical Education in NHS Lanarkshire (NHSL) sought to further enhance the Glasgow University Preparation for Practice clinical shadowing block by providing a simulated medical floor 'Evening on Call' programme entitled Clinical Prioritisation and Communication (CP&C).

Aim:
The aim of the programme is to provide final year medical students with an overview of the 'on call' experience as a Foundation Year 1 doctor[2] and particularly the need for good communication, prioritisation and clinical decision making skills, an awareness of their personal limitations and their ability to seek help.

Method:
Each student will be 'on call' for 45 minutes, circulating the four simulated medical wards aiming to complete the list of tasks given to them at 'handover'. Further requests by nursing staff will influence their list of priorities. The students will be continuously observed by senior faculty and a constructive debrief carried out at the end of their 'shift'.

Evaluation:
This experience affords the students a much valued taste of being an FY1 doctor with responsibility for a clinical caseload, within the realms of a safe and controlled yet realistic environment. For this reason CP & C has consistently evaluated highly by both candidates and faculty as a useful learning experience since 2008.

References:
[1]Goldacre M, Lambert I, Evan J, Turner G. PRHO views' on whether their experience at medical school prepared them well from their jobs: national questionnaire survey. BMJ 2003, 326:10011-101.
[2]McGlynn, M, Thomson,C, Peacock,S, Donaghy S, Paton C, Scott,H,R. (2010) Clinical Prioritisation: The first Solo Flight. Medical Education. Vol44. suppliment 3. July 2010.

POSTER P 27

Debating Clinical Skills Education: Identifying innovations to enhance skill development (P 93 in programme)

Pegram, A., Cornish, J., Bloomfield, J.

Since nurse education moved to Higher Education Institutions (HEIs) there has been long standing debate about the most effective approach to clinical skills teaching (Borneuf and Haigh 2010, Rennie 2009, Freeth and Fry 2005). Typically discussions centre on the best method of teaching clinical skills, however, there has been little evaluation of the value of undertaking clinical skills education in HEI settings and the impact this has had on patient care.

This poster presents key issues arising from a critical debate between academics involved in clinical education at one university in the United Kingdom. Discussion focused on the limitations and benefits of simulated learning compared with learning in the practice setting for clinical skills acquisition and how this enhances patient care.

Key themes relate to the value of simulation, rehearsal, supervised practise, application to the real-life context, assessment of competence and skill retention. The role of teaching clinical skills in HEIs remains undisputed, however, the need for methods to further advance the application of knowledge to patient care has been identified. These may include such innovations as the use of clinical tutors who work across organisation boundaries, peer assisted learning, patient educators and the inclusion of technology within the curriculum.

References:

Borneuf AM and Haigh C (2010), The who and where of clinical skills teaching: a review from the UK prspective. Nurse Education Today 30(2):197-201.

Freeth D and Fry H (2005), Nursing students' and tutors' perceptions of learning and teaching in a clinical skills centre. Nurse Education Today 25:272-282.

Rennie I (2009), Exploring approaches for clinical skills development in nurse education. Nursing Times 105(3) 20-22.

POSTER P 28

The development of a guided reflection tool to enhance learning in an emotionally charged simulation activity (P 101 in programme)

Ross, C., Hart, N.

School of Medicine, Dentistry and Biomedical Sciences, Queens University Belfast

Meeting with real patients for the first time in a clinical setting can be a daunting experience for first year medical students. In Tomorrows Doctors there is an emphasis on continual and systematic reflection in learning with a view to translation into action in Practice.(1) Following the outcome from a focus group to evaluate an educational innovation called 'Interacting with Patients' (IWP), we augmented this interactive session by providing a method for guided self-reflection.

Previous work has shown that the addition of emotional stressors to training enhances participant performance.(2) In order to emphasize key generic skills from IWP, we used simulated patients to role-play emotionally charged ward-based clinical scenarios to be played out by learners in the role of doctor in a simulated hospital bed area. Students were then invited to reflect on the experience and were given verbal feedback on their performance from peers, teacher and simulated patient. Student feedback showed that overall they found the learning activity realistic, valuable and constructive. However, students felt that some opportunities to take away learning from the session were lost and this is what has prompted the development of a guided learning tool for immediate and further reflection.

It is imperative that any reflective exercise is planned so that students can respond constructively and keep a Professional Development Portfolio. The use and application of this reflective learning tool will be further discussed.

References:

[1]Tomorrows Doctors 2009-Outcomes and Standards for undergraduate medical education. –General Medical Council publication -Page 26, para 9

[2]Adding emotional stressors to training in simulated cardiopulmonary arrest enhances participant performance. Samuel DeMaria Jr,1 Ethan O Bryson,1 Timothy J Mooney,1 Jeffrey H Silverstein,1,2,3 David L Reich,1 Carol Bodian1,4 & Adam I Levine1,5,6, Medical Education 2010: 44; 1006-1015

POSTER P 29

Using Self-Assessment to Develop Clinical Skills Competence: A Case Study Analysis (P 176 in programme)

Sharvin, B.

Waterford Institute of Technology

The development of competence in clinical practice skills is essential for safe practice and yet the assessment of clinical competence does pose ethical and practical difficulties and has proved problematic for nurse educators (Major, 2005; Watson et al, 2002). This paper presents the findings a doctoral research study which set out to address these problems through the design and evaluation of a self assessment tool to assist students in developing their competence in clinical skills while on placement.

A case study design, was adapted using one cohort of undergraduate students nurse in a third level institute (N= 26). Data was collected using a mixed method approach including Clinical Skills Assessment (OSCE), researcher field observation, self assessment tool, student reflections, evaluative questionnaire, and focus group analysis.

Analysis of the quantitative data found a statistically significant improvement in students' clinical skills competence level from before beginning placement to completion (p£ 0.05). Evaluative analysis also found a statically significant improvement in students' perception of their own competence. Qualitative analysis indicates that this improvement can be attributed to the use of the self-assessment tool. Self-assessment could therefore be a key learning tool in the future development of clinical skills competence for nursing students.

References:

Major, D.A. (2005) OSCEs – seven years on the bandwagon: The progress of an objective structured clinical evaluation programme. Nurse Education Today, 25, pp. 442-454.

Watson, R., Stimpson, A., Topping, A., & Porock, D (2002) Clinical competence assessment in nursing: a systematic review of the literature, Journal of Advanced Nursing, 39 (5) pp. 421-431

POSTER P 30

Introduction of a Pre-hospital Critical Incident Monitoring System – Final results (P 34 in programme)

Stella, J., Bartley, B., Jennings, P.

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Rural Ambulance Victoria, Geelong

Background:
Incident monitoring has been shown to improve patient care in the setting of hospital care and has been widely adopted in this setting. There is limited data on incident monitoring in the pre-hospital setting.

Hypothesis:
A high yield systems oriented incident monitoring process can be successfully implemented in a pre-hospital setting.

Method:
This prospective descriptive study outlines the implementation of an incident monitoring process in a regional pre-hospital setting. A committee reviewed all identified cases and coded and logged all incidents and made recommendations.

Results:
There were 315(69.4%) incidents categorised as management problems and 123 (27.1%)were system problems. Prolonged scene time was the most common incident in both management and system categories; 56 (17.8%) and 18 (14.6%) respectively. Mitigating circumstances were found in 111 (24.4%) of incidents. The most common incident related patient outcome was none/near miss 127 (28%). Incident monitoring most commonly led to generalised feedback 105 (23.1%) or specific trend analysis 140 (30.8%). Reports to higher or external bodies occurred in 18 incidents (4.0%).

Conclusion:
Utilising a number of incident detection techniques, results in a high yield of incidents over a broad range of error types. The large proportion of 'near miss' type incidents allows for incident assessment without demonstrable patient harm.

POSTER P 31

Barriers to incident notification in a regional prehospital environment
(P 33 in programme)

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Monitoring critical incidents and error reporting is a recent concept in the prehospital setting. In 2005 a prospective descriptive study of a Critical Incident Monitoring process in a rural/regional pre-hospital setting commenced. The nature and incidence of errors detected in a prehospital setting were described and processes to reduce incidents were identified. This paper describes the barriers to reporting critical incidents during the three year study.

A qualitative approach involving a number of ethnographic methodologies, including unscripted focus groups, informal interviews and qualitative aspects of surveys in the project was utilised. Prevailing themes were fed back to participants in an iterative process to further explore beliefs regarding these concepts. A number of barriers were identified and categorised into seven themes. These themes were; Burden of reporting, fear of disciplinary action, fear of potential litigation, fear of breaches of confidentiality and fear of embarrassment, concern that 'nothing would change' even if the incident was reported, lack of familiarity with process and impact of 'blame culture'.

There are numerous barriers to reporting critical incidents. Shifting from a "shame and blame" culture to a systems-based approach may improve uptake. The underlying barriers lie in the culture of the profession, and appear consistent across other health care disciplines.

POSTER P 32

Training medical students to perform intimate physical exams: Instruction and reflection
(P 105 in programme)

Taylor, JS., Reis, SP., George, PF., Wald, HS., Borkan, JM.

Doctoring is a required preclinical course at a US medical school combining instruction and assessment in interviewing, physical examination, and professionalism to introduce patient-centered care, reflection, and teamwork.[1-4] Each student attends two training sessions to learn male and female intimate physical exams with trained standardized patients then completes a reflective writing assignment. This curriculum is the most highly rated in the course: 350 students over four years have rated the sessions at 5.4 (1-6 Likert). Students' writing ranges from introspection to critical reflection for processing this emotionally demanding learning. Based on subsequent performance in clinical clerkships, students are well prepared.

References:

[1]Smith SR, Goldman RE, Dollase R, Taylor JS. Assessing medical students for non-traditional competencies. Med Teach. 2007;29(7):711-6.
[2]Wald HS, Davis SW, Reis SP, Monroe AD, Borkan JM. Reflecting on reflections: enhancement of medical education curriculum with structured field notes and guided feedback. Acad Med. 2009 Jul; 84(7):830-7.
[3]Wald HS, Reis SP, Monroe AD, Borkan JM. 'The Loss of My Elderly Patient:' Interactive reflective writing to support medical students' rites of passage. Med Teach. 2010; 32(4):e178-84.
[4]Hendrickx K, De Winter B, Tjalma W, Avonts D, Peeraer G, Wyndaele JJ. Learning intimate examinations with simulated patients: the evaluation of medical students' performance. Med Teach. 2009 Apr;31(4):e139-47.

POSTER P 33

Learning from Errors: Investigating Prescribing Incidents
(P 156 in programme)

Tully, V., Davey, P.

Background:
From 2005 we have been working with final year medical students' on medication errors in order to improve the non technical skills they need to be safe prescribers.

Method:
In 2010 all 5th year medical students at the University of Dundee are expected to carry out an incident review as part of their Foundation Apprenticeship Block in Medicine or Surgery. So far 69 students have investigated incidents and a further 81 are expected to do so by May 2011.

Students are allocated an incident specific to the FY1 role to investigate in small groups. This is supported by an online module 'Managing an Incident Review'.

Within the clinical area the students are supported by the Senior Charge Nurse from their allocated ward who is an AIM verifier and has experience in incident review.

Evaluation:
We plan to evaluate the students experience in completing an incident review. This will be in the form of a study to establish the students experience and learning from the investigation.

Conclusion:
So far the students who have completed an incident review have highlighted several areas of practice that will be taken forward within NHS Tayside.

POSTER P 34

Promoting Culturally Safe Care for First Nations with empathy, acceptance and cultural understanding: a priority in Canadian Clinical Skills Education
(P 62 in programme)

Vollant, S., Patenaude, JV., Lajeunesse, Y., Deligne, B., Hubert, G., Bourdy, C., Drouin, E., Laplante, J., Weber, F., Mahone, M., Delisle, S., Nguyen, DQ., Sansregret, A., Drolet, P., Thivierge, R., Roger-Ciesla, P., Jolivet-Tremblay, M., Boucher, A., Hotte, M., Grandmaison, J., Ferland, A., Perron, R., Durand, J., Lépine, D., Morrissette, A., Hervé, G., [2], Bolanakis, S., Hervé, G., Rouleau, J.

Université de Montreal – Faculty of Medicine, CAAHC[1]
CAE-Healthcare

Background:
"Many First Nations (FN) people have had negative experiences with the mainstream health-care system, often because of cultural differences between the patient . . . and the . . . provider. If the mainstream health-care system in Canada is to be effective in helping to improve health it must provide *culturally safe care*. In other words, health-care providers must take into consideration the social, political, linguistic, economic and spiritual realm in which their patient or client lives in order to communicate competently[2],[3]"

Work:
Our faculty developed a course with a First Nations doctor that includes: an initial theoretical phase, training with FN "partners" simulating patients, 'hybrid' learning activities: simulated patients mimicking classical clinical problems in Quebec, where scenarios demand the development of non-technical competencies appropriate for the FN.

Results:
The description and survey are presented.

Conclusion:
We believe that this training approach may be applied in other domains of professional education, including training students and physicians in an immigrant's culture, or alternatively, for immigrating students and physicians (IMG) who need to adapt to the Quebecois culture.

POSTER P 35

A contemporary holistic integrated teaching approach to clinical skills education which effectively engages students with essential nursing skills on first face to face contact within a university setting
(P 53 in programme)

Wright, W., Everett, F.

Aims:
This poster illustrates the introduction, utilisation and evaluation of a holistic integrated teaching approach of the assessment of vital signs.

Background:
Following reflection, recognition and evaluation from within the teaching team that the previous reductionist approach did not fully engage the students at this early stage in their nursing careers, a holistic approach was therefore embraced. Ultimately, it not only allows the student to practice in a simulated environment but also facilitates meaningful preparation for the clinical environment. It also addresses the core themes embedded in the curriculum; communication, infection control, patient safety and moving and handling. These themes also reflect integral elements of health care provision across all healthcare settings.

Intervention:
The integration of tutorial and skills laboratories which incorporates the introduction of a holistic 'real time' demonstration of the measurement, observation and subsequent feedback and recording of vital signs in the first face to face contact between lecturer and student.

Sample:
The sample group comprised 208 first year student nurses.

Method:
A questionnaire was utilised in order to evaluate student responses.

Findings:
Student evaluations were extremely positive with regard to the introduction and utilisation of an integrated teaching approach: 94% intimated that the integrated approach helped meet their learning needs; 97% identified that the content was appropriate to their needs and 94% concluded that the integrated approach will help their future practice.

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