GMC conference 2015
Promoting patient safety through undergraduate medical education
# hello

my name is...

Professor Jim McKillop
Agenda

- Intro and votes
- Incorporating teaching in human factors into undergraduate medical education
  Professor Rona Patey and Stephanie Russ
- Understanding teaching of Patient Safety through innovation projects: the educator and student perspective
  Colin Bicknell, Elizabeth Muir and Mark Sykes
- Table discussion and votes
- Curriculum review and student led safety projects
  Professor Hisham Khalil
- Queen’s University Belfast undergraduate patient safety curriculum and the role played by Margaret Murphy (WHO Patient Representative)
  Mairead Booham
- Panel discussion with questions from the floor
Place your votes

Patient safety is well covered in existing curricula

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree
Place your votes

Medical students prioritise learning about patient safety

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree
Place your votes

Students currently receive their medical education and training in an open and just safety culture that enables them to speak up if they see patients receiving poor care

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree
# hello my name is...

Professor Rona Patey
Stephanie Russ
Incorporating Teaching in Human Factors into Undergraduate Medical Education

- Professor Rona Patey
- Stephanie Russ
Review of the UoA MBChB Undergraduate Curriculum

• Patient Safety teaching a consistent theme across the 5 years
• Spiral curriculum – with progressive reinforcement of key concepts
• Stage appropriate progression in introduction of topics
• Clear sign-posting between sessions
• Common language/terminology
• Blended learning approach– multiple modes of teaching
• Comprehensive coverage according to WHO patient safety curriculum
• Formative and summative assessment
66 hours of explicit patient safety teaching

35 hours
- ‘Understanding error in healthcare’
- 2 x Sim-Man scenario: discussion of non-technical skills (NTS) and safety checks
- ‘Professional Practice Block’:  
  - Safe prescribing  
  - Clinical risk management and QI  
  - ‘After Francis’ group discussion  
  - Simulated ward round  
- Safe prescribing re-cap

7 Hours
- ‘What is patient safety’?
- ‘Do no harm’  
- Infection prevention and control

3 hours
- Infection prevention and control  
- Medication Safety

13 hours
- Infection prevention and control  
- Safe prescribing  
- Prescribing for the elderly  
- ‘Professional Practice Block’:  
  - Non-technical skills (NTS) theory  
  - Situation awareness training

PATIENT SAFETY

8 hours
- NTS Learning Activities  
  - NTS observations  
  - Moderated online discussion  
- Safe prescribing practice

4 5 1 2 3
The WHO Curriculum Guide topics:

1. What is patient safety?
2. Why applying human factors is important for patient safety
3. Understanding systems and the effect of complexity on patient care
4. Being an effective team player
5. Learning from errors to prevent harm
6. Understanding and managing clinical risk
7. Using quality-improvement methods to improve care
8. Engaging with patients and carers
9. Infection prevention and control
10. Patient safety and invasive procedures
11. Improving medication safety.
Human Factors

Non-Technical Skills Primer

Non-Technical Skills Observations

Situational Awareness

- Perception of elements in the environment within a volume of time and space, the comprehension of their meaning, and the anticipation of their future status.

Key elements of situational awareness:

- Setting information
- Recognizing understanding and interpreting information
- Anticipating future states

In other words, situational awareness involves understanding what is going on around us, and mental models of events to prepare for events. This entails attending to information, considering patient factors, analyzing or developing skills in critical situations, and then acting effectively.

Gathering information:

- Gathering information from patients, interactions, and knowledge. This includes understanding the recognition of critical cues by medical students and demonstrating to recognize and then interpret these.

Recognizing, understanding, and interpreting information:

- Recognizing information is important, yet understanding is not enough. The more you understand, the clearer and more closely you can interpret the information to a knowledge base. The more relevant the information, the more accurately you can interpret it. Understanding information allows you to process that information efficiently to make judgments or develop a plan of action.

Leadership Skills

- Giving clear instructions to named individuals
- Giving concise feedback when important
- Enacting or stopping significant tasks

Maintaining standards

- Following guidelines e.g., hand hygiene
- Ensuring a safe environment
- Highlighting the need for certain guidelines or checks that these are being followed

Monitoring

- Monitoring the system
- Ensuring that systems are functioning as they should
- Anticipating changes in the system

Decision-making

- Decision-making is a critical skill in healthcare. It involves assessing options, considering the pros and cons, and making a decision based on the information available.

Identification and considering options

- Identifying potential problems or issues that may arise
- Considering different options and their implications

Methodology:

- Methodology involves the systematic approach to solving problems or completing tasks. It typically involves identifying the steps needed to achieve a goal, and then following those steps in a logical sequence.
Non-Technical Skills
Personal Reflections

Complications
A Surgeon's Note on an Imperfect Science

ATUL GAWANDE
PICADOR

The Case of the Red Leg

Seeing patients with one of the surgery professors in his clinic one afternoon, I was struck by how often he had to answer his patients' questions, "I do not know." These are four little words a doctor tends to be reluctant to utter. We're supposed to have the answers. We want to have the answers. But there was not a single person who did not have to say those four little words in that day.

There was a patient who had come in two weeks after an abdominal hernia repair, "What's the pain in my neck to the side?"

There was the patient two weeks after a gastric-bypass operation, "Why haven't I lost weight yet?"

There was the patient with a large pancreatic cancer, "Can you get it out?"

And to all, the attending gave the same reply, "I do not know." A doctor still must have a plan, though. So to the hernia patient, he said, "Come back in a week and let's see how the pain's doing." To the gastric-bypass patient, "I'll be all right," and asked her to come back in a month. To the cancer patient, "We can try to get it out," and although another surgeon thought he shouldn't give the tumor's appearance as a cure, operation would be futile and risky, the colleague said, and he himself thought the odds of success were
Human Factors

Human Factors on the local and national agenda

NTS as a framework for inquiry during shadowing e.g.

Situation Awareness
- What areas do I cover? e.g. are there pts admitted to other areas & if so when and what do I have to organise for them?
- Where can I get a cup of coffee / tea? When is the best time to plan to eat – canteen or is it better to take food in with you?

Decision Making
- What decisions are you required to make without calling for help or waiting for someone? e.g. are you expected to start DVT prophylaxis, refer to other specialities yourself?
- Which decisions should you ask for help before implementation?
Next steps

• Incorporate M&M workshop into year 5

• Development of IPE sessions to include practice around ‘speaking up’ and ‘active listening’

• Train the trainers sessions

• Development of formative and summative patient safety and human factors assessment content

• Mapping of learning objectives to Tomorrow’s Doctors
Thank you

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# hello my name is...

Colin Bicknell  
Elizabeth Muir  
Mark Sykes
Patient safety: understanding through innovation projects, the educator and student perspective

Years 1 and 2
Developing Awareness

Year 3 Innovation Project

Year 5 Service Design and Patient Project

Year 6 Preparation for Practice
Leading change…
Years 1 and 2 developing awareness

First clinical attachment:

role plays; home visits to patient; debrief lecture

Second clinical attachment:

observational write ups
MDT participation
discharge summary critiques
analysis of patient safety issues (using frameworks derived from Reason and Vincent)
Medical Leadership Competency Framework

- Personal Qualities
  - Setting direction
  - Working with others
  - Delivering the Service

- Developing personal awareness
- Managing yourself
- Continuing personal development
- Acting with integrity

- Identifying contexts for change
- Applying knowledge and evidence
- Making decisions
- Evaluating impact

- Ensuring patient safety
- Critically evaluate
- Encourage improvement and innovation
- Facilitate improvement

- Developing networks
- Building and maintaining relationships
- Encouraging contribution
- Working within teams

- Planning
- Managing resources
- Managing people
- Managing performance
Clinical Quality Improvement Assignment in the Third Year

Judged on:

The posters will be assessed on the strength of a proposal to make a locally relevant, important and feasible impact on service quality.

These must be cost effective.
Examples of 3rd Year work

Think Drink

Everyone can help encourage our patients to drink more fluid

MORE THAN JUST BEAUTY SLEEP?

Daniella Osaghae, Abigail Nanapragasam, Jonathan Cooper and Adam Gunasekara

The ‘write’ way to infection control

Year 3 Clinical Quality Improvement Project – February 2012
Firm M2 – St Mary’s Hospital

Side room Protection

Ask Member of Staff first before entering

Isolation Type: [Standard, Strict, Protective]

This door can be left...:

OPEN [ ] CLOSED [x]

PPE needed:

- [ ] [ ] [ ]

REMEMBER:
>> Dispose PPE inside room
>> Wash Hands
Have you cleaned your stethoscope today?
Year 5

- Service design: dermatology
- Discharge summary reviews
- Patient Project in General Practice: home visit audit
Year 6 Preparation for Practice

- Handover: role plays
- Lessons learnt, ‘Taster’ session
- Medical emergencies: simulation
- Curriculum map
Summary

Cross cutting theme, where patient safety is mapped through the curriculum to:

• Teach knowledge and skills
• Critique current practice
• Foster appropriate attitude and behaviour
• Lead change

These are the first stepping stones to looking at medicine in a different way, improving the care of many patients…
Contacts

• Mark Sykes, Year 5 student
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• Elizabeth Muir, Foundations of Clinical Practice theme leader
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• Colin Bicknell, Vascular Surgeon,
  colin.bicknell@imperial.ac.uk

With thanks to Dr Jo Harris, Deputy Head, Undergraduate School of Medicine
Place your votes

In which of the following elements of patient safety do graduating medical students feel most confident?

1. Understanding human factors
2. Measurement and audit
3. Effective multidisciplinary team working
4. Engaging with patients and carers for safer care
5. Learning from errors and near misses
6. Using quality improvement methods for safer care
Place your votes

In which elements are graduating students least confident?

1. Understanding human factors
2. Measurement and audit
3. Effective multidisciplinary team working
4. Engaging with patients and carers for safer care
5. Learning from errors and near misses
6. Using quality improvement methods for safer care
The greatest challenge to undergraduate patient safety teaching is:

1. Lack of student engagement
2. Lack of student clinical experience
3. Lack of time in curriculum
4. Lack of teaching capability
5. Lack of open safety culture on clinical placements
Table discussion

- If you could change one thing about patient safety teaching, what would it be?
- What ideas do you have for supporting improvements in patient safety education and training?
- What projects are you involved with that you would like us to know about?

Please discuss and fill in the cards on the table.
# hello my name is...

Professor Hisham Khalil
Integrating Patient Safety in an Undergraduate Medical Curriculum

Professor Hisham Khalil
Director of Clinical Studies and Inter-professional Learning
Mission and Policies

- Patient Safety
- QA of Clinical Placements
- Raising Concerns
- Risk Analysis
- Response to concerns
PU PSMD Curriculum

- Patient centredness
- Patient involvement
- Risk management

- Communication Skills
- Organisational culture
- Evidence-based practice
- Interprofessional learning

Patient Safety

Leadership Skills

Risk Management

Excellence in Care
The Journey

- TD 2009 and supplements
- Making tomorrow’s doctor’s safer
- Curriculum review 2011/2012
Educational Principles

• Authentic experiences
• Evidence-based interventions
• Patient and Population centered
• Engaged-student learning
Patient Safety Curriculum in PU PSMD

- Years 1 and 2
  - Patient Safety Plenary
  - Patient Safety SSUs (Biomedical, Health Environment)
  - Small groups (Jigsaw sessions)

Induction Programme
- Dress code
- Infection control
- Needle stick injuries
- Raising concerns

Clinical Skills
- Communication skills and identification
- Hand washing, scrubbing
- Basic Life support
Patient Safety Curriculum in PU PSMD

- **Years 3 and 4**

  - Clinical placements
    (Foundation weeks, Human factors, WHO check list, longitudinal placements)

  - Prescription safety
  - Small groups
  - Workshops
    (Situational Judgment activities)
Exemplar
Patient Special Study Unit

- Themes including ‘infection control’ and ‘hand over’
- Inter-professional learning
- Quality improvement projects
Patient Safety Curriculum in PU PSMD

- **Year 5**

  - Clinical placements
    (Student Assistantship, Patient-centred issues in clinical reasoning sessions)
  - Prescription safety
  - Small groups
  - Master classes
    (Therapeutics)

**Induction Programme**
- Dress code
- Infection control
- Needle stick injuries
- Critical incident reporting

**Clinical Skills**
- Advanced simulation
- TULIP project
Resources

- Patient Safety Area on Digital learning Environment
- Virtual Patients project
- Pedagogic Research Institute and Observatory Funding
- HEA Engaged Student Learning Project
PU PSMD
Postgraduate Education and Training

• Masters in Patient Safety and Simulation

• Modules on leadership and quality improvement
# hello my name is...

Mairead Boohan
Patient Safety

Mairead Boohan
Centre for Medical Education
Queen’s University Belfast
Introduction

- Background to Patient Safety Teaching
- Overview of Patient Safety Training
- Lay input to training
• The Regulation and Quality Improvement Authority (RQIA)
• Health and Social Care Safety Forum, Northern Ireland
• Quality 2020
• Northern Ireland Medical and Dental Training Agency
## Patient Safety

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<th>Year 1</th>
<th>Year 2</th>
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“I found that Kevin's story was very valuable in terms of thinking about patient safety, and found this a thoroughly captivating aspect.”

“The patient stories, in particular Kevin's story. They made me think of how I would handle those situations and made me determined not to make the same terrible mistakes.”
“The most valuable thing was Kevin's Story, it had a real effect on me and made me aware of how dangerous a small mistake can get no matter the good intentions of the doctors involved.”

“Kevin's Story was touching and heart-felt, and truly drove home the importance of not missing opportunities and always striving to promote excellence and improvement in healthcare, and I felt this was unquestionably my favourite session in the module.”
• Patient stories have an impact on student awareness of patient safety issues
Acknowledgements

• Margaret Murphy

• Professor Pascal McKeown

• Nigel Hart