Clinical Skills Assessment – School of Medicine  
Faculty Development Program

University of Wollongong  
Tuesday 6th May 2014  
6.30pm – 9 pm

Presenters

<table>
<thead>
<tr>
<th>Professor Ian Wilson</th>
<th>Associate Professor David Garne</th>
<th>Dr Helen Rienits</th>
<th>Professor Wilf Yeo</th>
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<tr>
<td>Acting Dean</td>
<td>Academic Leader</td>
<td>Associate Dean:</td>
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<tr>
<td>Graduate School of</td>
<td>Clinical Skills</td>
<td>Teaching Hospitals</td>
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<tr>
<td>Medicine</td>
<td>School of Medicine</td>
<td>Professor of</td>
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Outline

| 7:00pm          | Welcome and Introduction          |
| 7:10pm          | What is Clinical Competence?      |
|                 | Understanding levels of competence|
|                 | The three different types of assessment used in GSM (Clinical competencies; OSCEs and C-EX) |
|                 | Deciding the Pass mark – Demystifying Borderline Regression |
|                 | Practise assessment on standard setting |
|                 | Giving Feedback for CCs, Formative OSCE and C-EXs |
| 8:50pm          | Questions, Evaluation forms, Wrap up|
| 9:00            | Close                             |
Assessing Clinical Competence

Programme & Introductions

- What is Clinical Competence?
- Understanding levels of competence
- Different types of assessment forms
- The Borderline Regression method
- Practise Time!
- Giving Feedback
- Evaluation

What is Clinical Competence?

Who defines the standards and how do we know what they are?

Clinical Competence

“If Medicine is both an ‘art’ and a ‘science’, then Clinical Competence is part of the art of medicine”

“Clinical Competence is the application of medical science at the patient interface.”
Curricula have changed!

• Curricula have changed from an input orientation to an output orientation
• We went from disciplines to integrated learning objectives, to end objectives, and now to (generic) competencies
• We went from teacher oriented programs to learning oriented, self-directed programs

Assessment has changed!

• Change in qualities of graduate
• Drives change in medical curriculum
• Requires some changes in types of assessment
• Change in what we are assessing
• Is a work in progress

Competency-frameworks

CanMeds
• Medical expert
• Communicator
• Collaborator
• Manager
• Health advocate
• Scholar
• Professional

ACGME
• Medical knowledge
• Patient care
• Practice-based learning & improvement
• Interpersonal and communication skills
• Professionalism
• Systems-based practice

GMC
• Good clinical care
• Relationships with patients and families
• Working with colleagues
• Managing the workplace
• Social responsibility and accountability
• Professionalism

The Australian Scene

• Australian Medical Council
• Australian Qualifications Framework
• Junior Doctor’s Framework
• Medical Deans of Australia and New Zealand
  – Use and endorse the above frameworks
  – Have chosen the CanMeds (Canadian) Competency Framework: (Medical Expert, Communicator, Collaborator, Manager, Health Advocate, Scholar, & Professional)
Benchmarking

Med DANZ are also keen to see various medical schools collaborating with each other to develop assessment tasks and jointly use them in order to maintain standards.
- ACCLAiM is one such consortium of medical schools sharing assessment items.

Tools for assessment

- MCQ’s
- Written Questions
- Multistation Exams
- Assignments, Projects & Presentations
- Clinical Competencies
- OSCEs
- Vivas – Short & Long cases
- Workplace based assessment- Mini CEXs & SPRs.

Understanding the expected levels of competence at the GSM

Overview of curriculum and assessment structure

Our Vision

The UOW Graduate School of Medicine will be recognised as a regional and national leader in developing and implementing strategies that effectively address the shortage of medical and other health care practitioners in regional, rural and remote Australia. In addition, the GSM will achieve national and international status as a leader in medical education.
Course Structure
Split into 4 phases

Phase 1
18 months - Campus based, hospital & GP placements

Phase 2
12 months long - Hospital based

Phase 3
12 months long - Community based

Phase 4
6 months long - Hospital based

Learning activities

- Large group teaching
  - Lectures, seminars
  - Clinical demonstrations

- Small group teaching
  - Clinical Skills Centre
  - Human anatomy laboratory
  - Tutorials CBL

- Online
  - Guided online learning activities
  - Group feedback session

- Mentoring
Developing clinical competence

- Phase 1: 3 sessions (18mths)
  - Clinical skills (2hrs/week – campus)
  - Clinical placements (2 hrs/fortnight – Hosp/GP)
- Phase 2: 2 sessions (12mths)
  - Clinical skills (2hrs/week – campus days)
  - Hospital rotations (3 days/week)
- Phase 3: 2 sessions (12mths)
  - GP placements (2 days/week)
  - Hospital/ED placements (2 days/week)
  - Clinical skills (2 hrs/week – in Hubs)
- Phase 4: 1 session (6mths)
  - Hospital placements (5 days/week)

Clinical competency - example

<table>
<thead>
<tr>
<th>Speciality Skill - Emergency Medicine / Critical Care &amp; Anaesthetics (cont)</th>
<th>Level of competency at end of Phase (P) or Post Grad Year (PG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKILL</td>
<td>P 1</td>
</tr>
<tr>
<td>33 Infiltration local Anaesthetic</td>
<td>E</td>
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Assessing clinical competence

- Clinical competencies assessment in Phase 1 and 2 during Clinical Skills sessions
- OSCEs - end of Phase 2 and 3
- Mini CEXs - Phase 2, 3 and 4
- Vivas, Short cases and case presentations
- Personal and Professional Development and Student Performance Reviews - Phases 1-4
Knows

Shows how

Knows how

Does

Performance assessment in vivo:
Mini CEXs, Long cases, etc.

Performance assessment in vitro:
CCs, OSCEs, etc.

Scenario or case-based assessment:
CCs, MCQs, Written, etc.

Fact-oriented assessment:
MCQs, ...,

Miller’s pyramid of learning
Cees van der Vleuten

What are we assessing – Part 1

Basic Skills
• History taking
• Examination
• Communication
• Procedures
• Risk assessment
• Case presentation
• Emergency resuscitation

Disciplines
• Medicine
• Surgery
• Paediatrics
• Obstetrics & Gynaecology
• Psychiatry
• Emergency Medicine
• General Practice

What we are assessing – Part 2

Process Skills
• Time management
• Smooth flow
• Patient centred
• Clear and appropriate language
• Organise patient management
• Team work and communication

Content Skills
• Medical knowledge
• Clinical reasoning
• Diagnosis
• Clinical decision making
• Investigation
• Clinical management

Assessment of Clinical Competence at the GSM

Formats and Forms
Clinical Competency

- 11 CCs over the first 2 years
- Conducted in CS sessions in the labs
- Student given 10, 15 or 20 mins to complete the task
- Assessed individually
- Summative but given feedback
- Can have up to 3 goes to pass

CCs in first 2 years (4 semesters)

1. Communication and Anthropometry, BLS, Cardiovascular & Respiratory Examination
2. History Taking, Gastrointestinal examination, Diabetic Assessment
3. Psychiatric History Taking, PNS Examination, MSK Examination
4. Case Presentation, Taking a PAP Smear

CC Forms

- Check student has entered name, student number and date
- Circle first/second/third attempt
- Start timer for set time – student starts
- Do not interrupt or stop student
- Ask question if they finish before timer
- Ensure 4 filled in dots and your name and signature are complete

CC Forms – Process section

Assessor’s Marking Sheet

<table>
<thead>
<tr>
<th>Title of competency</th>
<th>Examination of the Peripheral Nervous System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Competency Attempt (Please define)</td>
<td>First</td>
</tr>
</tbody>
</table>

Assessor

<table>
<thead>
<tr>
<th>Activity</th>
<th>DESCRIPTION OF PERFORMANCE</th>
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<tr>
<td>Appearance of patient in correct dress, clean, neat, and well-groomed, and in appropriate environment, and in a manner that conveys confidence and respect.</td>
<td></td>
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<tr>
<td>Communication</td>
<td>Clear and concise, appropriate body language, and use of medical terminology.</td>
</tr>
<tr>
<td>Observation of patient's response to exam, including observation of patient's physical responses and communication of findings.</td>
<td></td>
</tr>
<tr>
<td>Organic Examination</td>
<td>Complete, thorough, and systematic examination of the patient.</td>
</tr>
<tr>
<td>Physical Examination</td>
<td>Thorough and detailed examination of the patient, including examination of the peripheral nerves.</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Correct and well-supported diagnosis.</td>
</tr>
<tr>
<td>Treatment Plan</td>
<td>Well-planned and appropriate treatment plan, considering the patient's medical history and current condition.</td>
</tr>
<tr>
<td>Outcome</td>
<td>Patient's condition improved significantly, and patient is satisfied with the care received.</td>
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Score: [ ] [ ] [ ] [ ]
CC forms – Content section

**Observation Skills**: Performs general and specific observations appropriate for the task.
- Examines all aspects of Gait, Squat and Romberg’s correctly. Checks back.
- Examines upper and lower limbs for muscle bulk, tension, scars, etc.

**Examination Skills**: Performs all aspects of the examination as per the 560 using good technique.
- Compares sides, tests upper and lower limbs, covers all areas / surfaces.
- Correctly tests: Tone (incl. clonus in lower limbs), Power, Reflexes, and Coordination.
- Correctly tests sensation: Touch, Pain, Vibration and proprioception.

**Knowledge**: Demonstrates ability to explain the pathophysiologic anatomical basis for a sign or symptom (question).

**Score**
- 3
- 2
- 1
- 0

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CC Forms – Volunteer section

Professional, respectful, patient if necessary, to prevent embarrassment, establishes rapport with patient. In facilitated examination, many of patient’s changes depend on patient’s comfort during test of examination. When making your final judgment, please consider if you would be likely to recommend this doctor from your assessment of patient.

**Score**
- 3/3
- 2/3
- 1/3
- 0/3

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CC Forms – Comments on Back

If the student scored less than 50/50, please describe what the student should have done differently:

Any issues that may have affected performance?
CC Comments

• Student should communicate with the patient not you most of the time
• Standard setting section is to set the standard of the station and decide the pass mark
• What happens if the student fails?
• 5 minutes for verbal feedback at end.

OSCEs

• Held at the end of Phase 2 (after 1 year clinical experience) and at end of Phase 3 (after 2 years clinical experience)
• 13 stations: 3 Medicine, 3 Surgery, 2 Paediatrics, 2 Psychiatry, 2 O&G, 1 long case / case presentation.
• Forms are very similar to CCs but have clinical scenario and set tasks
• No feedback except after formative OSCE

During the Assessment (8mins)

• Position yourself so you can see
• Allow the student to complete the task
• Do not interrupt them (except 7min prompt if needed)
• Ask question at end only if there is an assessor question
• Stick to the station as written -OSCE

Assessment Form Completion

• After the student leaves, ask the volunteer for their mark (don’t alter it)
• Front page – 4 filled in circles and sign
• No Half marks or extra dots
• Back of page – Add comments on students performance – especially if they did poorly (<14/20)
Mini CEXs

- Used in Phase 2, 3 and 4 in the clinical setting.
- Work based assessment
- Not standardised
- Students complete 4-8 per semester
- Completed by preceptor
- Are Summative
- Give feedback afterwards
How do you set the passing score for an OSCE?

Standard setting for OSCE
Borderline regression method

Options

- Angoff method
  - Group of experts with knowledge of curriculum and standard of students develop a score that a borderline student would achieve
  - Slow, subject to significant biases
- Mean of borderline
  - Students are scored and then classified as
    - Not yet competent
    - Borderline
    - Competent
  - The mean of the scores of the borderline students becomes the passing score
  - Requires a significant number of Borderline scores

Compare a CPR station with a counselling station –
What should be the passing score in each station?
**Options**

- Borderline regression
  - Students are scored and then classified as
    - Very unsatisfactory  Unsatisfactory  Borderline  Satisfactory  Excellent
  - A regression equation is then used to calculate the passing score

**What the assessor needs to do:**

Fill in one circle for the student’s overall performance

- Poor Attempt  Borderline  Excellent

- If student’s performance is not a clear pass or a clear fail, fill in borderline.

**The regression line**
The passing score

- The “distance” between each of the ratings is identical
- The examiners understand the process and use the scoring method consistently and effectively
- Hawks and doves

Other options

Problems

Assumptions and problems

- The “distance” between each of the ratings is identical
- The examiners understand the process and use the scoring method consistently and effectively
- Hawks and doves
Giving Feedback

- Research shows that it is one of the most powerful learning tools
- Grades and marks are extremely poor forms of feedback
- Verbal and written comments from an experienced doctor on your individual performance can be very helpful
GSM methods of giving feedback

Pendleton’s Rules

• Focus on what the student did well
• Discuss what could be done differently next time
• Finish on a positive note if possible – but not a false positive

Principles of giving feedback

1. Descriptive
2. Specific
3. Behavioural
4. Learners benefit
5. Share information
6. Ensure understanding
7. Concise
8. Relevant
9. Well intentioned

Considerations

• Student anxiety levels
• Time – Clinical Competency 3 to 4 mins
• The important take home message
• Patient safety
• Level of student study

Considerations cont

• Be aware of balancing positive and negative feedback
• Be prompt – delays reduce impact
• Fear of upsetting student
• The hyper confident student – ‘I was excellent’
• The hypo confident student - ‘I was really bad’
Communicating the feedback

- **Verbal**
  tone, accurate,

- **Non verbal**
  Body language should match the message

- **Written**
  Clear, concise, relate to assessment,

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Feedback - Can be hard to receive
- we tell the students:

- Try to listen
- Don’t be defensive
- Reflect on what’s been said