Clinical Skills Assessment – School of Medicine
Faculty Development Program

University of Wollongong
Friday 20th June 2014
2.30 - 5 pm

Presenters

<table>
<thead>
<tr>
<th>Professor Ian Wilson</th>
<th>Associate Professor David Garne</th>
<th>Dr Helen Rienits</th>
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<tbody>
<tr>
<td>Acting Dean</td>
<td>Associate Dean: Community, Primary, Remote and Rural</td>
<td>Academic Leader</td>
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<tr>
<td>Graduate School of Medicine</td>
<td>Graduate School of Medicine</td>
<td>Clinical Skills</td>
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<td>School of Medicine</td>
<td>Faculty of Science, Medicine and Health</td>
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<td>Faculty of Science, Medicine &amp; Health</td>
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Outline

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>3:00pm</td>
<td>Welcome and Introduction</td>
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<tr>
<td>3:10pm</td>
<td>What is Clinical Competence?</td>
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<td></td>
<td>Understanding levels of competence</td>
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<tr>
<td></td>
<td>The three different types of clinical assessment used in GSM</td>
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<td>1. Clinical competency</td>
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<td></td>
<td>2. Objective Structured Clinical Examinations (OSCEs) – Forms, Deciding the Pass mark – Demystifying Borderline Regression. Practise assessment on standard setting</td>
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<td>3. Mini- Clinical examination- student (Mini C-EX-S)</td>
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<td></td>
<td>Giving Feedback for CCs, Formative OSCE and C-EXs</td>
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<td>4:50pm</td>
<td>Questions, Evaluation forms, Wrap up</td>
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<td>5:00</td>
<td>Close</td>
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Allocated 4 Category 2 points in QI&CPD Program for the 2014–2016 triennium
This organisation is an authorised provider of accredited activities under the RACGP QI&CPD program.
Asessing Clinical Competence

Graduate School of Medicine
University of Wollongong

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?

"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 learner 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.

Questions on concept of Clinical Competence?

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.

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**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**

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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)

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### Clinical Competency levels

<table>
<thead>
<tr>
<th>Skill</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>PG1</th>
<th>PG2</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Vascular Interventions</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>33. Infiltration local Anaesthetic</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>32. Infiltration local Anaesthetic</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>24. Public Awareness</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>C</td>
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### Speciality Skill - Emergency Medicine / Critical Care & Anaesthetics (cont)

<table>
<thead>
<tr>
<th>Skill</th>
<th>Level of competency at end of Phase (P) or Post Grad Year (PG)</th>
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<tbody>
<tr>
<td>33. Infiltration local Anaesthetic</td>
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### Clinical competency - example

<table>
<thead>
<tr>
<th>Skill</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
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<td>C</td>
<td>D</td>
<td>C</td>
<td>D</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

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

1. Clinical Competency

- 11 CCs over the first 2 years
- Conducted in CS sessions in the labs
- Student given 10, 15 or 20mins 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

- Student Name:
- Student Number:
- Date:

Assessor’s Marking Sheet

Title of competency: Examination of the Peripheral Nervous System

Clinical Competency Attempt (Please circle): First Second Third

Activity | Description of performance
--- | ---
| | 

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, tremors, scars, etc.

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

Knowledge: Demonstrates ability to explain the pathophysiological / anatomical basis for a sign or symptom (question)

Score: 0 1 2 3 4 5 6 7 8 9 10

CC Forms – Volunteer section

- Professional responsibility: Performs task(s) as specified, establishes rapport with patient / facilitator, examination, method of patient / care during and at end of examination, when making final judgment, please consider if you would be likely to return to the doctor (total marks awarded by patient)

Score: 0 1 2 3 4 5
CC Forms – Comments on Back

If the student scored less than 34/60, 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.

Assessment of Clinical Competence at the GSM

2. Objectively structured clinical examinations - OSCEs
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 feed back 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)

Standard setting for OSCE
Borderline regression method
How do you set the passing score for an OSCE?

Compare a CPR station with a counselling station –

What should be the passing score in each station?

**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

**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
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

Assessment Practice

Time to give it a go!
You are the OSCE assessor

- Watch video 1
- Mark on sheet 1 (blue sheet)
- Group Discussion
- Watch video 2
- Mark on Sheet 2 (red sheet)
- Group Discussion

Assessment of Clinical Competence at the GSM

3. Mini CEX-s
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
Giving Feedback

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,
Feedback - Can be hard to receive - we tell the students:
• Try to listen
• Don’t be defensive
• Reflect on what’s been said

Feedback practise time
• Work in pairs (pink sheet)
• Watch Mini CEX – video 3
• 1 person is assessor / other is student – assessor to give feedback
• Watch Mini CEX – video 4
• Reverse roles.
• Give each other feedback on the feedback

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GSM methods of giving feedback

Pendleton's Rules

• Focus on what the student did well
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On behalf of the students and faculty of the GSM:
Thank you for taking part in the education of our future doctors, your contribution is greatly appreciated