Notes from the briefing presentation from Fiona Patterson & Richard Wakeford to the RCGP/NOSA Assessment Group on Wed July 11th 2007

**Assessment in the JAFM Residency Programme**


**Outline**

- Examinations: what do you need (outline)?
- Content and Curriculum
- What testing methods might you use?
  - Principles
  - Types of assessment
- The JAFM Situation
- Core Values to reflect in its Assessments
- Bringing test content to the method
  - Blueprinting
- Recommendations
  - To start with
  - Longer-term aims

**Richard Wakeford MA CPsychol**

- Educational Adviser, School of Clinical Medicine, Cambridge University
- Fellow of Hughes Hall (a Cambridge University “College”)
- Consultant in Assessment and Psychometrics, eg:
  - Royal Colleges of Surgeons - Dental Examinations
  - Royal College of General Practitioners
  - Royal College of Psychiatrists
  - Royal College of Pathologists
  - PMETB
- Course Organiser, Huntingdon GP VTS
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Assessment in the JAFM Residency Programme
Japanese Academy of Family Medicine
Workshop: Tokyo - September 2nd 2007

Assessment in the JAFM Residency Programme
How should we prepare to conduct the JAFM’s qualifying examinations in 2010?
Japanese Academy of Family Medicine
Workshop: Tokyo - September 1st 2007

Outline
• Examinations: what do you need (outline)?
  • Content and Curriculum
  • What testing methods might you use?
    Principles
    Types of assessment
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  • Bringing test content to the method
    Blueprinting
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Examinations - what do you need?
• Teachers: with commitment and a vision for FM
• A philosophy: a set of values for FM and training
  • A curriculum (= what will be learned) → a syllabus (= what will/may be tested)
• Testing approaches and methods
• Test content

But first, what are your learning needs about assessment and examinations for the JAFM?
• In your groups, take 5 minutes to identify the most important question about examinations (and assessing senior FM residents) that you would like answering?
We will try to cover as many areas in the talk as possible!
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Examinations - what do you need?
- Curriculum
- Test Content
- Values
- Testing Methods

Examinations - what do you need?
- Test Content
- Panel of Examiners
- Testing Methods

Examinations - what do you need?
- Panel of Examiners
- Training for:
  - Developing tests
  - Writing questions/cases
  - Assessing candidates
  - Giving feedback
  - Analysing results
- Expert support (test developer/psychometrician)?

Examinations - fundamental needs
- Test Content
- Test Methods
- Trained Examiners

What will be the exam’s content?
- Curriculum
- Test Content
- Values
- Testing Methods

What will the assessments cover?
- Curriculum for Family Medicine
- Assessment will inevitably cover:
  - Knowledge and application of knowledge
  - Skills - cognitive (e.g., problem-solving) and psychomotor
  - Attitudes and Values
- ... and it will have formative as well as summative intentions
Where do curricula come from?

- Ideally, job analyses of family physicians
- Hard if they don’t exist or differ!
- From the heads of outside or inside experts?
- Probably:
  - Initially borrowed, argued about, adapted
  - Later devised from your own experts

New MRCGP Curriculum
http://www.rcgp-curriculum.org.uk/

Hours of fun!

What testing methods are there?

- Multiple Choice and similar Questions (MCQ)
- Short Essay Written Questions (SAQ)
- Assessment based in the Workplace (WBA)
- Log diaries of experiences and reflections (Logs)
- Review of Videos of Trainees’ Consultations
- Case-based Discussions (CBD)
- “OSCE”-type assessments of consultation skills
- Not, probably, long traditional oral exams

Best Practice Assessment Procedures

- Exercise for the Whole Group, working as individual “Examiners”
- Please get a small piece of paper and get ready to write a mark on it
- When given the task, please do it in silence and privately from those around you - no cheating!
- Then fold your mark paper and await further instructions

Some assessment principles
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**Multiplication marks**
- What issues are raised by this exercise?
  - 5 minutes in groups

**Question:**
"Multiply 269 by 63"

**Answer:**

\[
\begin{array}{c}
269 \\
\times 63 \\
\hline
807 \\
16040 \\
\hline
16847
\end{array}
\]

**Different examiners marking the same short-answer exam scripts**

**Examiners marking different papers from different students on different occasions**

**Hawks**

**Doves**

**Outliers**
Two key issues for an assessment procedure

- Clear and agreed function for the assessment method
- Make the grading as independent as possible of individual examiner effect

Useful Types of Questions

Best Practice Assessment Procedures

- Multiple Choice and similar Questions (MCQ)
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Multiple Choice Questions - MCQs

- Single best answer (best of five)
  A statement followed by a number of items, only ONE of which is correct

Example of Single Best Answer

The way to a man’s heart is-

A. Through his aorta
B. Down the Expressway and off at junction 4
C. Through his pulmonary arteries
D. Through his pulmonary veins
E. Through his stomach via his bento box
Short Answer Questions  SAQs

GPs’ responsibilities to partners, other health professionals and society

- “Reports from your patients have given you serious concerns about nursing standards in the local hospital. How might you respond?”
  [Question 6, October 2000] Group work

SAQ Example of marking schedule

- Danny aged 7 years is brought by his mother. The school says that he is badly behaved and she is concerned about his educational attainment. His teacher has suggested a hearing test.

  Discuss your management.

  Qn 11. Oct 2004

Marking constructs for Danny

- A-Information Gathering
- B- Relationships
- C-Examination, diagnosis ,differential diagnosis
- D-Management of this consultation
- E-Future management

Case Based Discussions CBD

currently used in a formative way in the UK

Assessing Videos of Consultations
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Example of Video Criteria
Encourages the patient’s contribution
Explore’ patient’s understanding about their health/condition
Places the complaint in psychosocial context

Needs further development
Competent
Excellent

OSCE
Objective Structured Clinical Examination
All candidates do the same tasks in rotation

Clinical Skills Assessment - CSA
• State-of-the-art UK assessment of clinical competence
• High level “OSCE” format with 12+ cases
• Using simulated patients for every case
• Overall test length is approx 3 hrs
• Tests consultation and clinical skills

CSA
Purpose:
“An assessment of a doctor’s ability to integrate and apply clinical, professional, communication and practical skills appropriate for general practice.”

The CSA Circuit
• Each Candidate is allocated to a consulting room

Eg:
1

Candidates (stay put)
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Finding the right testing methods

- Curriculum
- Test Content
- Values
- Testing Methods

The JAFM Programme’s Values

- Consultation Skills
- Holistic Approach - “the whole patient”
- Family and Community
- Preventive Medicine
- Solving undifferentiated patient presentations
- Use of Evidence-Based Medicine (EBM)

Particular issues for the JAFM

- The Japanese specialty assessment context:
  - Emphasis on knowledge; respect for the know-ers
  - Traditions of testing - eg oral examination by prof.
- New specialty, needs to show high quality of successful trainees
- Need to concentrate assessment on core values
- Temper ambition with realism: need for trainees to qualify!
- Use current international best testing practice

Bringing Content to the Method

- Blueprinting:
  - Ensuring that what you want to test is tested
  - Producing a representative test (not one based on the Professor’s interests!)
  - Helps produce a valid assessment
- Valid assessments test appropriate things using appropriate methods
- Reliable assessments test consistently and produce results with predictive value

Examiners and their Training

- If possible, selection against task-related criteria (eg ability to mark essays consistently!)
- Train to perform the task/s
- Train to mark to the appropriate standard
- Ongoing monitoring of performance (eg video)
- Statistical analyses of “hawks” and “doves”
- Incompetent examiners will ruin your exam’s reliability and reputation!
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Assessing which Values with which Method?

<table>
<thead>
<tr>
<th>Testing Methods</th>
<th>Core Values of JAFM for Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Knowledge</td>
</tr>
<tr>
<td>Multi-choice</td>
<td>MCQ &amp; EMQ</td>
</tr>
<tr>
<td>Short essay Qs</td>
<td>Workplace-based Assessments</td>
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<tr>
<td>Logs</td>
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<td>Assessment of</td>
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<td>Logs</td>
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</tr>
<tr>
<td>OSCE Clinical Skills Exams</td>
<td>Logs</td>
</tr>
</tbody>
</table>

Your task:

- Look at the list of “values” in the handout
- Think about how you might assess the first residents at the end of their FM programme
- How will each of your values be assessed?
- Where will knowledge, skills (cognitive and psychomotor) be assessed?
- What will your assessment system comprise?

Recommendations

- MCQ
- SEQ
- Log
- Formative videos
- ??
- Later .... a CSA

Reading that you may find helpful

- Annual Report on the MRCGP Examination
- ASME Booklet on Assessment
  How to design a useful test: the principles of assessment
  Lambert WT Schuwirth and Cees PM van der Vleuten
  Association for the Study of Medical Education
  www.asme.org.uk
- Paper on the Training of Examiners
  How should paediatric examiners be trained?
  N Khera, H Davies, T Lissauer, D Skuse, R Wakeford, J Stroobant
  Archives of Diseases in Childhood 2005; 90: 43–47
- Any paper on PMETB website: explore - www.pmetb.org.uk