Summative assessment in Otorhinolaryngology (ENT) – the Objective Structured Video Examination (OSVE) - of final year medical students at the Chinese University of Hong Kong

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The primary aim of medical training is to produce competent doctors

Fontaine et al NZ Med J 2001 114 314-315
A medical faculty has an obligation to society is to ensure that medical graduates are competent.
Pillars of competence

Knowledge
- Information stored in a learner's mind
- Either they have it or not
Pillars of competence

Skills

– These are actions which a person performs in a competent way in order to achieve a goal
– Skills range from none to mastery
Pillars of competence

Attitude

– A feeling about a situation based on knowledge and experience and which results in an action tendency towards that situation
Competence is the complex ability to apply:

– Knowledge
– Skills
– Attitudes
How is competence assured?
Competence is assured by assessment

A competency-based curriculum should be assessed with a competency-based assessment

Why does assessment assure competence?

• Assessment determines what students learn
• Students learn what is assessed
• Assessment motivates a student to learn
Assessment of competence –

• Written exam
• MCQ’s
• Orals
• Clinicals
  – Real patients
  – Standardized patients
• Simulations
  – Computer, video, models
Assessment of competence –

There is no single best method

Hart 1999 Univ Ottawa
Objective Structured Clinical Examination

• Emphasizes and tests the most important things that a medical student should be able to do

• Allows for the evaluation of competence of a student in a standardized manner

Traditional ENT OSCE

- 150 Students
- 20 Stations
- 5 minutes per station
- 250 hours

This is a logistic challenge
Disadvantages of the ENT OSCE

• Time commitment
• Logistics
  – Patients (simulated are best)
  – Examiners (must be trained)
• Need 30 stations to be reliable
  – Wide spectrum of ENT knowledge and skills need to be assessed
• Fatigue – may introduce error
  – Patients
  – Examiners
The Ear Nose & Throat Objective Structured Video Examination (ENT OSVE)

Just as the OSCE has been improved (for example by using simulated patients) so the ENT OSVE follows the philosophy of ‘OSCE improvement’
The ENT OSVE

- Is presented in a multimedia format
- Allows all students are examined simultaneously
- Has 10 stations that are presented sequentially
- Has a time limit for each station
- Has no weighting of stations
- Tests skills equally between stations
The ENT OSVE will require students to

- Observe history taking
- Interpret examinations
- Interpret investigatory findings
- Understand routine ENT procedure
- Have insight into ENT procedures
- Observe sign
- Evaluate treatment
- Propose management strategies
Question 2
Knowledge

- MCQ
- One word answers
- Short sentences
Clinical acumen

- History
- Examination
- Investigations
- Procedures
Attitudes

• What would you tell the patient?
• How would you approach the family?
• Would you discuss complications?
Problem solving

• Listen to a history
• Propose a plan of management
• What tests would you order next
• Interpret an audiogram
• Interpret an X-ray
Patient management

• Propose an investigation strategy
Advantages of ENT OSVE

• Allows for the simultaneous assessment of medical students
• Requires minimal logistics and personnel
• Assesses what is seen and heard – not what is written
• With our limited manpower, we use the ENT OSVE to assess medical student competence
The future of the ENT OSVE

• Rasch analysis
• Factor analysis
• Allows inappropriate questions to be excluded from future examinations
• Allows the establishment of a database of validated clinical ENT questions
Conclusion

We have developed and refined the use of a multimedia examination that requires minimal resources to provide a reliable assessment of students' competence.
Thank you