OBJECTIVE STRUCTURED CLINICAL EXAMINATION, OSCE

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Objective

To test clinical skill performance and to assess students’ competence in

1. communication;
2. clinical examination;
3. execution of medical procedures;
4. execution of manipulation techniques; and
5. interpretation of results.
OSCE principal features

- a circuit of 10-12-15 stations
- short (usual is 5–10 minutes)
- each candidate is examined on a one-to-one basis
- station is real or simulated patients (actors) or
- alternatively, real or simulated clinical problem
- each station has a different examiner
- students rotate through the stations, completing all the stations on their circuit
OSCE vs. traditional examination

**Advantage**
- All candidates take the same stations
- The stations can be standardized
- Fair peer comparison
- Complex procedures can be assessed without endangering patients' health.

**Disadvantage**
- OSCE is more expensive
- Difficult to organize
- Require substantial resources
OSCE design

OSCE is designed to be:

1. OBJECTIVE
   - all candidates are assessed using exactly the same stations
   - the marking scheme is same
   - assessment by large number of assessors
   - not based on subjective impression of one examiner
OSCE design

OSCE is designed to be:

2. STRUCTURED
   - detailed scripts are provided to give the same information to all candidates
   - Instructions are carefully written
   - the OSCE is carefully structured to include parts from all elements of the curriculum
   - as well as a wide range of skills.
OSCE design

OSCE is designed to be:

3. **CLINICAL EXAMINATION**

- the OSCE is designed to test the applicable clinical and theoretical knowledge.
- where theoretical knowledge is required the questions are standardized
- the candidate can be asked questions that are on the mark sheet
OSCE marking

OSCE is made objective by having

a. a detailed mark scheme
b. standard set of questions
c. done by the examiner.
OSCE marking

OSCE is made objective by having

a. written stations use a standardized mark sheet
b. points are awarded for specific actions which are performed safely and accurately
c. By the end of each station, the candidate is rated as pass/borderline/fail, and
d. It is determined a minimum number of stations required to pass
Preparation for OSCE

- very different from preparing for an examination on theory
- In an OSCE, clinical skills are tested rather than pure theoretical knowledge

It is essential

a. to dissect the clinical procedure into its individual steps,
b. learn the steps,
c. learn to perform the steps in a sequence.
Standardized (simulated) patient with headache

1. FIRST or WORST headache ever?
2. DIFFERENT from usual headaches?
3. Onset = when did it start?
   - gradual, sudden (thunder-clap)
4. Provocative
   - stress, food, menstrual cycle, rest
5. Quality
   - unilateral, bilateral, band-like?
   - does it spread?
   - throbbing, stabbing, dull, pressure
STANDARDIZED (SIMULATED) PATIENT WITH HEADACHE, CONT’

1. Radiation of pain
   1. where does it spread?
2. Severity
   1. Nausea/vomiting
   2. photo/phonophobia
   3. vision changes
   4. fever
   5. stiff neck
   6. confusion
Anaplastic anemia

Multiple choice, MCT

a. lymphoma, non-Hodgkin
b. megaloblastic anemia
c. multiple myeloma
d. anaplastic anemia

Short answer test, SAT

Slide represent the peripheral blood smear of ....
Mannequins

Airway Features

- Endotracheal Tube Insertion
- Laryngeal Mask Airway Insertion
- Sellick Maneuver
- Positive-Pressure Ventilation
- Right Main stem Intubation
- Suctioning
- Variable Lung Compliance
- Gastric Tube Insertion
Mannequins

Breathing Features

- Spontaneous breathing with variable rate
- Bilateral and unilateral chest rise
- CO₂ exhalation
- Normal and abnormal breath sounds
- Oxygen saturation
Mannequins

Vascular Access
a) umbilical
b) intra osseal

Circulation:
 a  Heart Sounds
 a  Umbilical and Brachial Pulse
 a  Blood Pressure measured by auscultation
Mannequins

Breathing Complications:
1. Pneumothorax
2. Unilateral chest movement
3. Mechanical ventilation
4. Unilateral breath sounds
5. Unilateral needle thoracentesis
Video clips

- Movement disorders
- Parkinson disease gait
- Epileptic fits, etc.
Defibrillation
Procedures

Wound suture and dressing
Joint and bone immobilization
Catetherization
Venepuncture and cannulation
Drainage maintenance
Aspiration
Enema, etc.
Apparatus and instruments

Monitors
Defibrilators
Ventilators
Subaqual drainage
Active abdominal drains
Oxy- and capnometers
Vascular pumps
Infusion systems, etc.
Expected result of OSCE: good care for patients