

Preparing Residents for OSCEs

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Objectives

1. **Recognize key elements** necessary to prepare residents for the OSCE exam.
2. **Formulate plan to assess** ACGME sub-competency milestones *and* skills from the ABA Applied Exam Content Outline.
3. **Develop a plan** for constructing an OSCE at your residency program

Disclosure

- Member of the ABA OSCE Committee
- No financial conflicts



What is an OSCE?

Objective.....Structured.....Clinical.....Examination

- Standardized evaluation (e.g. checklist) → **O**bjectivity
- Clinical scenarios are **S**tructured (*scripted/standardized*)
- Variety of **C**linical Skills **E**xamined
 - Procedural skills (e.g. ultrasound guidance)
 - Data interpretation (e.g. monitors, TEE)
 - Interpersonal interactions (e.g. informed consent)

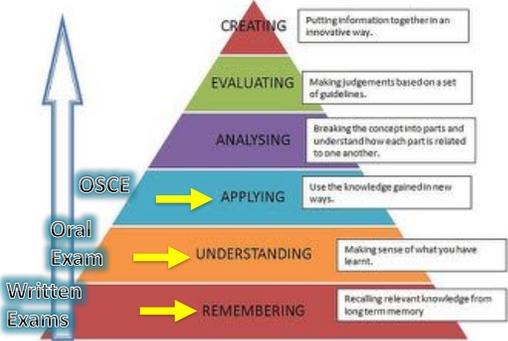


Bloom's Taxonomy

↑

Oral Exam

Written Exams



CREATING	Putting information together in an innovative way.
EVALUATING	Making judgements based on a set of guidelines.
ANALYSING	Breaking the concept into parts and understand how each part is related to one another.
APPLYING	Use the knowledge gained in new ways.
UNDERSTANDING	Making sense of what you have learnt.
REMEMBERING	Recalling relevant knowledge from long term memory.

Low-Fidelity OSCE Scenario



High-Fidelity OSCE Scenario



Mixed-Fidelity OSCE Scenario



Background
The Objective Structured Clinical Examination (OSCE) has been extensively used in undergraduate medical assessments and their use in postgraduate medicine in the UK was pioneered by the Royal College of Anaesthetists.

Primary FRCA OSCE

Questions
OSCE questions are developed by specialist sub-groups of examiners and reviewed carefully before every exam. New questions go through at least two trial runs to demonstrate satisfactory performance before being adapted into the question bank.

The Stations
Candidates are asked to perform a range of tasks in a limited time. A set station is present in these stations.

Equipment
The equipment station requires the candidate to perform a task using the equipment available.

History
Candidates are asked to take a history from a patient or a standardized patient.

Measurement
Candidates must demonstrate their verbal and non-verbal communication skills.

Physical examination
Candidates must demonstrate their physical examination skills.

Technical skills
Candidates must demonstrate their technical skills.

Formal
Candidates must demonstrate their formal skills.

OSCE stations include:
- Trauma Management in ER
- Resuscitation
- OR Crisis Management
- Mechanical Ventilation
- Regional Anesthesia

Israeli National Board of Anesthesiology OSCE

Five - 15 minutes scenarios:

1. **Trauma Management in ER:** Mannequin based; ATLS skills
2. **Resuscitation:** Mannequin based; ACLS Skills
3. **OR Crisis Management:** Mannequin based; "help" junior resident
4. **Mechanical Ventilation:** Artificial lung based; ABG based adjustments
5. **Regional Anesthesia:** Actor based; U/S guidance, LA, complications

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OSCE OVERVIEW

- All scenarios will be low-fidelity
 - No items like mannequins or tasks trainers
 - Will have computer stations, ultrasounds, standardized patients

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**ABA APPLIED EXAMINATION
OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)
CONTENT OUTLINE**

A. Communications & Professionalism

1. Informed consent (*Obtain informed consent from a patient*)
2. Treatment options (*Analyze a clinical scenario, formulate appropriate treatment options, and discuss these options with a patient*)
3. Peri-procedural complications (*Conduct a focused evaluation of a peri-procedural complication, formulate an action plan, and discuss this plan with the patient*)
4. Ethical issues (*Frame and discuss appropriate plans to address common ethical dilemmas in clinical care settings*)
5. Communication with other professionals (*Effectively communicate with other healthcare team members in a professional manner*)
6. Practice-based Learning and Improvement (*Articulate and apply principles of patient safety and quality improvement to a clinical scenario*)


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ABA APPLIED EXAMINATION
OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)
CONTENT OUTLINE

B. Technical Skills

1. Interpretation of monitors (*Identify clinical conditions associated with patterns of data presented on monitors*)
2. Interpretation of echocardiograms (*Interpret basic echocardiograms relevant to anesthesia practice*)
3. Application of ultrasonography (*Identify relevant normal anatomy using ultrasonography*)



Creating OSCE Prep Scenarios



- Decide if OSCE for **board prep +/- ACGME milestones**
- Know your environment/setting for the OSCE
 - Sim center, faculty offices, OR, PACU
- Prepare scenario documents for OSCE
 - use templates

Documents for an OSCE Scenario

- 1. Learner Prompt**
 - Used by learners to orient to setting and task
 - Used by assessors to understand resident's orientation
- 2. Script**
 - Used by SP's to know role, environment & contingencies
 - Used by assessors to understand scenario context
- 3. Grading Sheet**
 - Objective grading criteria used by assessors
 - based upon milestones rubrics or other standards

Sample Scenario

- ACGME Milestone: *Interpersonal & Communication Skills 1*
- ABA Skill Area: *Periprocedural complications*



Learner Prompt

- **5 Elements:**
 1. Describe **role of the examinee** – *Who* are they
 2. Describe **context/timeframe** – *When & where* are they located
 3. Describe **patient** – *What* is the history and status
 4. Additional **background information** – PE, vitals, labs
 5. **Scenario Objective** – *Why* is there an interaction and *how* is it happening.

Learner Prompt Template

Background/Setting: (e.g. PACU, Preop, Clinic, Conference Room)

OSCE Scenario Objective: Your task is to ...

HPI:

PMHx:
PSHx:
Allergies:
Meds:
Social: () smoker, () drinker, () other drugs.
NPO:

Vitals:
BP:
HR:
SPO2: %
ETCO2:

PE:
General:
Airway:
Lungs:
Heart:
Neuro:
Vascular:

Labs:

Scenario Title: "Medical Error Disclosure"

Milestone: Interpersonal and Communication Skills 1

ABA Skill Area: Periprocedural complications

Background/Setting: Conference room/waiting room ¹

HPI: You have just completed a laparoscopic appendectomy taking for an otherwise healthy 9yo male (Michael Williams) with acute appendicitis. You took over the case just prior to the beginning of surgical closing. The procedure lasted 45min, but the patient was not initiating any breaths at the end of the surgery. A twitch monitor was placed and 0/4 twitches were observed. ²

After going back over the EPIC documentation and syringes in your work area, you realized the previous anesthesia provider administered 2mg/kg of cisatracurium, instead of 0.2mg/kg for induction. You made the decision to take the patient to the PICU intubated. The attending surgeon has already discussed the outcome of the surgery with the mother but left the OR prior to making the decision to go to the PICU, so he did not inform the mother. The previous anesthesia provider has already left the hospital and is unavailable. The prep from the operating is shown below for your reference. ⁴

OSCE Scenario Objective: Your objective is to meet with the mother, who is waiting for you in the family conference room, and explain the current situation and answer her questions. ⁵

Scripts

- 5 Elements:
 - States – i.e. initial state, transitions, resolution
 - SP/Actor lines
 - Learner's "Lines" (most likely to be stated)
 - Contingency SP/Actor lines
 - Staging/moulage

Script Template

→	Response 4	Should explain that the patient will need to stay in PICU for a few hours, and that the PICU physicians will decide when it is safe to take the breathing tube out.	The mother should then ask, "Will this cause any long term problems for my son?"
	Response 5	Should reassure the mother that there is a very low chance of having any long-term problems for the child due to remaining intubated until the medication wears off.	The mother should ask "How are you going to keep this from happening to other kids in the future?"
	Response 6	May offer many different answers to this question (ie. Drug doses and volumes should be verbally double-checked between care team members)	Parent should ask "What about the person who made the mistake?"
→	Response 7	May briefly explain the role of the anesthesia care team. Should inform the mother that the initial team members will be notified of the error for feedback and may follow up with mother at a later time.	GO BACK TO RESPONSE 4 IF NOT ALREADY COMPLETED
→	Resolution	May apologize that this error happened to their child. Should ask the mother if she has any further questions.	The mother should state, "No, thank you. I appreciate your honesty in admitting the mistake and coming to talk to me about it."

Grading Sheets

- Behaviorally anchored, objective actions
 - "Yes"/"No" observable actions (i.e. disclosed error)
 - Translation of milestones to scenario context
- Global rating score for overall performance
 - Fluency
 - Style/Approach
 - Order of actions



Grading Sheet Template

	Senior	Communicates challenging information and addresses complex circumstances with conditional independence	1. Avoids blaming other team members. 2. Asks the mother if she has any further questions/concerns	1. 2.	
	Adv.	Independently discloses medical errors or medical complications Consistently ensures effective communication and resolution of concerns occurs with patients and/or families	1. Explains a plan to avoid similar errors in future (some examples include a discussion with previous team members, AQI/PSQI committee reporting, presenting at M&M) – need at least 2 steps to the action plan. 2. Accepts responsibility for the error on behalf of the anesthesia team	1. 2.	
			→ Global Rating Score		... out of 5

Global Rating Scores

5 = Excellent:

- Excellent performance of all skills during the scenario.
- Outstanding demonstration of the technical and non-technical aspects of the scenario.
- Confident and clear in the performance of the scenario.

4 = Very Good Pass:

- Very good performance of the skills of the scenario.
- A majority of the technical aspects of the skill were demonstrated.
- A few minor and non-essential omissions or errors.

Global Rating Scores

3 = Pass:

- Acceptable performance of the skills of the scenario.
- Despite some omissions and errors demonstrated adequate patient care.
- At times may be formulaic in approach to the scenario.

2 = Borderline Pass:

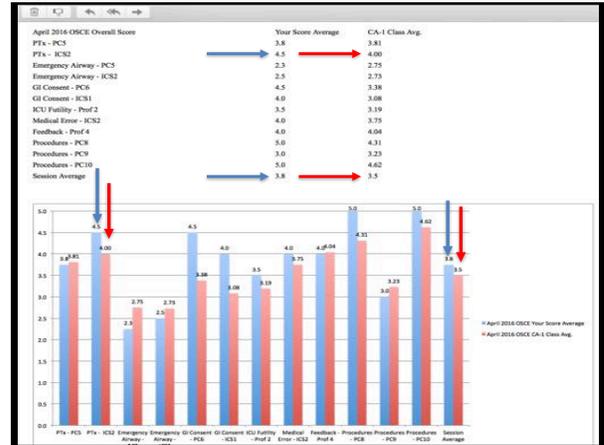
- Patchy performance of the skills of the scenario.
- Demonstrated some aspects of the skill, however, omissions and inaccuracies occurred during the performance of the scenario.
- Often formulaic in approach and struggled with the scenario.

1 = Fail:

- Performance of the skills did not meet a passing standard.
- Was disorganized or unsafe in patient care.

Grading Sheet Sample

	Senior	Communicates challenging information and addresses complex circumstances with confidence	1. Avoids blaming other team members. 2. Asks the mother if she has any further questions/concerns	1. N 2. Y	<i>Answer another person way of death Did a good job asking further questions</i>
	Adv.	Independently discloses medical errors or medical complications. Consistently ensures effective communication and resolution of concerns occurs with patients and/or families	1. Explains a plan to avoid similar errors in future (some examples include a discussion with previous team members, AQI/PSQI committee reporting, presenting at M&M) - need at least 2 steps to the action plan. 2. Accepts responsibility for the error on behalf of the anesthesia team	1. N 2. N	
			Global Rating Score		4/ out of 5



SP Training Process

3 Stages:

1. Orientation
2. "Simulate the Simulation"
3. Dress Rehearsal

Benefits to Process:

- Ensures consistency of training from session to session
- Gives SPs adequate time to learn scripts
- Allows for time to adjust scenarios if needed
- ~2 weeks pre-OSCE

Stage 1: Orientation



Stage 2: "Simulate the Simulation"



Stage 3: Dress Rehearsal



Tips for Training SPs

- Show your appreciation x 10 to the SPs!
- Learn their names
- Know their backgrounds
– i.e. occupation, education, family
- Bagels and Coffee in break-room
- Say "Thank You" face-to-face



Limitations of SP's

- Cost: \$15-\$20 per hour per SP
- Background knowledge may be limited
- Scheduling/availability can vary
- Acting skill sets (ability to improvise)
- High-Stakes (no "second takes")

Advice for using SP's in OSCE's

- Build a Core Team of SP's
- Start Training Early – at least 2-4 weeks early
- Know your SP's limitations
- Make time for rehearsal
- Make time for constructive feedback
- Record the training session for the SP to review.

Timeline for creating an OSCE

1. **Start to Write Scenarios** – 2-3 months in advance
2. **Train Actors** – 2 weeks in advance
3. **Rehearsal** – Day of session (prior to 1st resident)
4. **OSCE Session** – 1-2 full days
5. **Faculty Assessments**– 3 weeks deadline
6. **Send Reports to Residents** – 4 weeks after OSCE
7. **Clinical Competency Committee (CCC)** – June/Dec
8. **Portfolio** – Provided upon graduation

Summary

- Decide if are incorporating milestones into OSCEs.
- Build a core set of templates:
 - Learner prompt
 - Script
 - Grading sheet
- Make deliberate efforts to train SP's properly.
- Provide some form of feedback to residents

*Thank
you*



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