

## Annexure 1

### Sample OSPE Station: Surface Anatomy – Upper Limb (Radial Pulse Palpation)

Station Title: Identification and Palpation of Radial Artery on a Simulated Patient

Station Setup

- 1) Duration: 5 minutes
- 2) Materials:
  - a. Trained SP seated comfortably with forearm supinated
  - b. Hand sanitizer
  - c. Printed clinical scenario and checklist
  - d. Pen and clipboard for examiner
  - e. Optional: anatomical diagram for reference
- 3) Clinical Scenario (Student Prompt)

A 22-year-old male presents for a routine health check-up. You are required to identify and palpate the radial artery on the patient's forearm and assess the pulse. Please explain the procedure to the patient and ensure comfort and professionalism throughout.

Expected Student Tasks

1. Greet and introduce self to the SP
2. Explain the procedure and obtain verbal consent
3. Perform hand hygiene
4. Position the patient's forearm appropriately
5. Identify anatomical landmarks (e.g., radial styloid process, flexor carpi radialis tendon)
6. Palpate radial artery using correct technique
7. Comment on pulse character (rate, rhythm, volume)
8. Thank the SP and conclude professionally

OSPE Checklist for Examiner/SP

Task	Score
Introduces self and greets the patient politely	1
Explains procedure clearly and obtains consent	1
Performs hand hygiene before examination	1
Positions forearm correctly (supinated, relaxed)	1
Identifies radial artery using correct surface landmarks	2

Uses correct palpation technique (pads of index and middle fingers)	2
Assesses pulse and comments on rate/rhythm/volume	2
Maintains patient comfort and communicates respectfully	1
Thanks patient and concludes encounter professionally	1

**Total Score: 12**

CBME Competency Mapping

- AN36.4, AN36.5 – Identify major peripheral arterial landmarks on living subjects
- PY10.13 – Demonstrate examination of vascular systems
- AETCOM 1.3, 2.1, 2.3 – Communicate effectively, maintain professionalism, and ensure patient-centered care
- CM3.7 – Practice infection control (hand hygiene)

Standardized Patient Feedback Rubric – Anatomy OSPE Station

- Station: Surface Landmark Identification / Radial Pulse Palpation
- Duration: 5 minutes SP Role: Provide feedback based on interaction with student during OSPE

Domain	Criteria	Rating Scale
Communication	Explained procedure clearly and respectfully	1 = Poor; 2 = Fair; 3 = Good; 4 = Very Good; 5 = Excellent
	Used appropriate language and tone	1–5
	Checked for understanding or consent	1–5
Professionalism	Maintained eye contact and respectful demeanor	1–5
	Demonstrated empathy and courtesy	1–5
	Maintained appropriate physical boundaries	1–5
Patient Comfort & Safety	Ensured comfortable positioning and explained actions	1–5
	Performed hand hygiene before contact	1–5

	Thanked patient and concluded professionally	1-5
Overall Impression	Felt respected and safe during the encounter	1-5

- Optional Comments Section (SP can write brief notes)
- What did the student do well?
- What could be improved?
- Any concerns or suggestions?

#### Notes for Use

- SPs should be trained to use this rubric consistently.
- Scores can be used for formative feedback or triangulated with faculty checklist scores.
- Rubric aligns with AETCOM 1.3, 2.1, 2.3, 2.6 and supports Miller's "Shows How" level.

#### Student Self-Reflection Form – Anatomy OSPE (SP-Based Station)

- Station Title: Surface Anatomy – Radial Pulse Palpation
- Date: \_\_\_\_\_ Student Name: \_\_\_\_\_  
Roll No.: \_\_\_\_\_

#### Part A: Reflecting on My Performance

- Please rate your confidence and performance in each area using the scale below: 1 = Not confident; 2 = Somewhat confident; 3 = Confident; 4 = Very confident; 5 = Excellent

Skill Area	Rating (1-5)
I greeted and introduced myself to the patient clearly	
I explained the procedure and obtained consent respectfully	
I performed hand hygiene before the examination	
I identified the correct anatomical landmarks for radial artery palpation	
I used the correct technique to palpate the radial pulse	
I maintained patient comfort and professional behavior throughout	
I concluded the encounter respectfully and thanked the patient	

#### Part B: What I Learned

- One thing I did well during this station:
- One thing I could improve next time:

3. How did this station help me connect anatomy to clinical practice?

Part C: My Learning Goals

- a) Short-term goal (next OSPE or session):
- b) Long-term goal (clinical postings or internship):
- c) Optional: Kolb's Cycle Reflection (tick if applicable)

<b>Stage</b>	
I had a concrete experience (hands-on palpation)	
I reflected on what happened and how I felt	
I understood the underlying anatomy and technique	
I plan to apply this learning in future practice	

## Annexures 2

### Structured checklist for the SP-based anatomy OSPE station

#### Domains and items

- Preparation:
  - a) Student greets SP and introduces self.
  - b) Confirms identity and explains the procedure briefly.
  - c) Performs hand hygiene or verbalizes hand hygiene.
- Professionalism and communication:
  - a) Obtains verbal consent clearly.
  - b) Uses respectful, non-technical language.
  - c) Maintains SP comfort and draping appropriately.

#### Technique: radial pulse palpation:

- a) Identifies correct anatomical location (radial styloid, tendon landmarks).
- b) Positions wrist appropriately (slight extension, neutral forearm).
- c) Uses correct finger pads (index and middle; avoids thumb).
- d) Applies appropriate pressure and adjusts as needed.
- e) Counts/estimates rate consistently for the allotted time.
- f) Comments on rhythm/volume if prompted.

#### Surface anatomy identification:

- a) Accurately points to/labels defined landmarks (e.g., anatomical snuffbox, flexor retinaculum, cephalic vein course).
- b) Relates landmark to a brief clinical context (e.g., cannulation site, fracture tenderness).

#### Closure and safety:

- a) Thanks SP, checks comfort, and re-drapes as needed.
- b) Communicates findings succinctly to examiner.
- c) Performs/verbally confirms hand hygiene at exit.

#### Scoring rubric (per student)

- Scale: 0 = not done/incorrect; 1 = partially correct; 2 = correct/competent.
- Weighting:
  - a) Preparation (3 items, max 6)
  - b) Professionalism and communication (3 items, max 6)
  - c) Technique: Radial pulse palpation (6 items, max 12)
  - d) Surface anatomy identification (3 items, max 6)
  - e) Closure and safety (3 items, max 6)

Total score: max 36; passing threshold set at  $\geq 24$  with mandatory competence in “Technique” ( $\geq 8/12$ ).

Critical fails (Remedial flag):

- a) No consent.
- b) Incorrect site or unsafe pressure causing discomfort.
- c) Breach of draping/privacy.

### Annexure 3

#### Station timing and throughput plan for 50 students in 2 hours

##### Core timing per candidate

- a) Briefing and entry: 30 seconds
- b) Active assessment: 5 minutes (technique + landmarks + communication)
- c) Exit and turnover: 30 seconds
- d) Total per candidate per lane: 6 minutes

##### Throughput calculation

- a) Time available: 120 minutes
- b) Cycle length per candidate: 6 minutes
- c) Students per lane:  $\text{Students per lane} = 120/6 = 20$
- d) Number of lanes needed:  $50/20 = 2.5 = 3$
- e) Total capacity with 3 lanes:  $3 \times 20 = 60$  students (buffer for contingencies)

This plan accommodates all 50 students comfortably within 2 hours, with a 10-student buffer for delays or re-assessments.

##### Lane layout, staffing, and standardization

- Lane composition ( $\times 3$ ):
  - a) SP: 1 per lane, trained with script and posture cues.
  - b) Examiner: 1 per lane, using the standardized checklist.
  - c) Timekeeper/runner: Shared across lanes; visible countdown timer.
- Standardization measures:
  - a) SP script: Fixed prompts for consent and comfort checks; consistent wrist position.
  - b) Examiner checklist: Same rubric and critical-fail criteria across lanes.
  - c) Calibration: 20-minute pre-session huddle to align scoring and SP portrayal.

##### Flow control:

- a) Queue management: 5-student micro-groups per lane; next student ready at the door.
- b) Visual timer: Large digital clock; 30-second warning chime.
- c) Turnover protocol: Quick reset (re-drape, reposition wrist).

##### Data capture and immediate feedback

- a) Checklist recording: Paper (or tablet) forms with auto-tally to 36.
- b) SP ratings: 3-item professionalism rubric recorded per candidate.
- c) Flagging: Immediate mark of critical fails for remedial scheduling.

- d) Debrief window: 10 minutes at the end for global feedback; individual feedback reserved for remediation.

#### Correlation with feasibility and scalability

- a) Feasibility: The 3-lane model requires 3 SPs and 3 examiners, fits in one large skills lab or three adjacent stations, and maintains consistent scoring.
- b) Scalability: For larger cohorts, increase lanes or reduce active assessment to 4 minutes by narrowing landmarks (then adjust calculations accordingly).
- c) Cost-effectiveness: Minimal added cost per lane (SP honorarium and basic disposables), while throughput remains high due to short cycle times and standardized checklists.