Assessment of Operative Skills
Fundamentals of Cardiac Surgery

Evaluator: Subject: Rotation: Program:

AOS is designed to evaluate objectively the proficiency of the resident in the critical components of the selected operation. The order presented here is designed to facilitate evaluation, and not to imply conduct of the operation. Similar components are grouped together for ease of evaluation or to assist in grouping of skills to assist the resident in improving specific technical skills. Use the term N/A if not applicable.

ACGME COMPETENCIES: INTERPERSONAL AND COMMUNICATION SKILLS
SKILL ASSESSED: COMMUNICATION AND INTERPERSONAL SKILLS IN OR

1) Operating room safety / "time out"

Novice: Not familiar with time out procedures.
Beginner: Performs time out from checklist in the OR.
Competent: Embraces crew-resource training and applications.
Proficient: Routinely uses crew resource training; incorporates time out for all procedures in and out of the OR.
Expert: Performs time out and creates a safety-base culture from crew resource training; engages all members of OR team; active listener; creates a safe environment for patient and staff.

ACGME COMPETENCIES: PATIENT CARE SKILL ASSESSED: PSYCHOMOTOR SKILL

2) Manual dexterity

Novice: Unable to tie knots.
Beginner: Ties knots; rough tissue handling.
Competent: Ties knots satisfactorily in various circumstances; handles tissues gently.
Proficient: Good hand-eye coordination; expected good surgical outcomes; consistent safe and efficient skill application in the OR.
Expert: Outstanding manual dexterity, "slick", excellent outcomes; technically adept.

ACGME COMPETENCIES: PATIENT CARE SKILL ASSESSED: PSYCHOMOTOR SKILL

3) Incision

Novice: Beginner: Competent: Proficient: Expert: N/A

Remaining Characters: 5000

Novice: Beginner: Competent: Proficient: Expert: N/A

Remaining Characters: 5000

Novice: Beginner: Competent: Proficient: Expert: N/A

Remaining Characters: 5000

Novice: Beginner: Competent: Proficient: Expert: N/A

Remaining Characters: 5000

Novice: Positions patient appropriately.
Beginner: Identifies incision location.
Competent: Performs incision safely and accurately with direction; achieves hemostasis.
Proficient: Performs pericardiotomy; mobilizes heart prior to cardiopulmonary bypass to facilitate cannulation.
Expert: Spontaneously and without prompting, performs various incisions as needed to access the heart; great vessels; valves.

**ACGME COMPETENCIES: PATIENT CARE, MEDICAL KNOWLEDGE**
**SKILL ASSESSED: PSYCHOMOTOR SKILL**

4) **Cannulation**

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Novice: Identifies appropriate arterial and venous cannulation sites.
Beginner: Places cannulation sutures for arterial and venous cannulation.
Competent: Selects size appropriate cannulae; inserts arterial and venous cannula safely; ensures appropriate heparin dose.
Proficient: With guidance, selects sites, cannulae, places cannulae; avoids complications of cannulation.
Expert: Spontaneously and without prompting, manages aortic dissection, cardiac decompensation, etc.; places vent if needed.

5) **Conduct of cardiopulmonary bypass**

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Novice: Identifies arterial and venous lines.
Beginner: Identifies role of cardioplegia and cooling; rewarms patient at conclusion of operation.
Competent: Initiates CPB based on ACT; applies aortic occlusion device; identifies route and site for cardioplegia cannula and initiates cardioplegia; achieves hemostasis; ensures clear, concise communication throughout operation.
Proficient: With guidance; avoids cardiac distension; ensures vent is well-positioned and functional; protects heart throughout operation from ischemia injury; decannulates.
Expert: Spontaneously and without prompting, safely places patient in CPB; avoids ischemic injury; ensures adequate CPB support prior to cardioplegia; maintains cardiac cooling; weans from cardiopulmonary bypass.

6) **Immediate postoperative care**

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Novice: Identifies need for perioperative critical care.
Beginner: Performs 'hand-off' in ICU / PACU / etc.
Competent: Identifies early events requiring reoperation.
**Proficient:** With guidance, manages patient events in the postoperative period; identifies cardiac decompensation including tamponade; identifies timing of IABP, reoperation, ventricular support, etc.

**Expert:** Spontaneously manages the continuum of patient events in the postoperative period; freely communicates with faculty, staff, and others; ensures optimal outcomes.

7) **EARLY CONCERN**
   (comments required if any early concern) [Comments]

   Remaining Characters: 5000

   - YES, Critical Incident
   - YES, Series of Red Flags
   - Yes, General Impression
   - NO

Overall Comments:

[Remaining Characters: 5000]

[Return to Questionnaire]