

Hospital Trainer name Date

Trainee name Operation

Category	Category rating*	Element	Element rating*	Feedback on performance and debriefing notes
Situation Awareness		Gathering information		
		Understanding information		
		Projecting and anticipating future state		
Decision Making		Considering options		
		Selecting and communicating option		
		Implementing and reviewing decisions		
Communication and Teamwork		Exchanging information		
		Establishing a shared understanding		
		Co-ordinating team activities		
Leadership		Setting and maintaining standards		
		Supporting others		
		Coping with pressure		

* 1 Poor; 2 Marginal; 3 Acceptable; 4 Good; N/A Not Applicable

- 1 Poor Performance endangered or potentially endangered patient safety, serious remediation is required
- 2 Marginal Performance indicated cause for concern, considerable improvement is needed
- 3 Acceptable Performance was of a satisfactory standard but could be improved
- 4 Good Performance was of a consistently high standard, enhancing patient safety; it could be used as a positive example for others
- N/A Not Applicable

The NOTSS rating scale

The scale below is used to rate non-technical skills based on observed behaviour. The same scale is used to rate category and element-level skills. If a skill is not required or not relevant in the particular case being observed then 'N/A' should be used. If a skill should be displayed but is lacking, then '1 – poor' should be used.

NOTSS System Rating Options

Rating Label	Description
4 – Good	Performance was of a consistently high standard, enhancing patient safety; it could be used as a positive example for others
3 – Acceptable	Performance was of a satisfactory standard but could be improved
2 – Marginal	Performance indicated cause for concern, considerable improvement is needed
1 – Poor	Performance endangered or potentially endangered patient safety, serious remediation is required
N/A – Not Applicable	Skill was not required or relevant in this case

Not all skill elements may be required or desirable in any given clinical encounter.

You should expect to see behaviours in order to provide ratings 2 (marginal), 3 (acceptable), or 4 (good). You should expect to see poor behaviours or the absence of required behaviours to rate 1 (poor). Rating N/A means that you did not see behaviours to rate because they were not required or not relevant for the clinical encounter being rated.

Situation Awareness: Developing and maintaining a dynamic awareness of the situation in theatre based on assembling data from the environment (patient, team, time, displays, equipment); understanding what they mean, and thinking ahead about what may happen next.

Gathering information — Seeking information in the operating theatre from the operative findings, theatre environment, equipment, and people.

Good behaviours:

- Carries out pre-operative checks of patient notes, including investigations and consent
- Ensures that all relevant investigations (e.g. imaging) have been reviewed and are available
- Liaises with anaesthetist regarding anaesthetic plan for patient
- Optimises operating conditions before starting e.g. moves table, lights, AV equipment
- Identifies anatomy/ pathology clearly
- Monitors ongoing blood loss
- Asks anaesthetist for update

Poor behaviours:

- Arrives in theatre late or has to be repeatedly called
- Does not ask for results until the last minute or not at all
- Does not consider the views of operating room staff
- Fails to listen to anaesthetist
- Fails to review information collected by team
- Asks for information to be read from patient notes during procedure because has not been read before operation started

Understanding information — Updating one's mental picture by interpreting the information gathered, and comparing it with existing knowledge to identify the match or mismatch between the situation and the expected state.

Good behaviours:

- Acts according to information gathered from previous investigation and operative findings
- Looks at CT scan and points out relevant area
- Reflects and discusses significance of information

Poor behaviours:

- Overlooks or ignores important results
- Misses clear sign (e.g. on CT scan)
- Asks questions which demonstrate lack of understanding
- Discards results that don't 'fit the picture'

Projecting and anticipating future state — Predicting what may happen in the near future as a result of possible actions, interventions or non-intervention.

Good behaviours:

- Plans operating list taking into account potential delays due to surgical or anaesthetic challenges
- Verbalises what equipment may be required later in operation
- Shows evidence of having a contingency plan ('plan B') (e.g. by asking scrub nurse for potentially required equipment to be available in theatre)
- Cites contemporary literature on anticipated clinical event

Poor behaviours:

- Overconfident manoeuvres with no regard for what may go wrong
- Does not discuss potential problems
- Gets into predictable blood loss, then tells anaesthetist
- Waits for a predicted problem to arise before responding
- Operates beyond level of experience

Decision Making: Skills for diagnosing the situation and reaching a judgement in order to choose an appropriate course of action.

Considering options — Generating alternative possibilities or courses of action to solve a problem. Assessing the hazards and weighing up the threats and benefits of potential options.

Good behaviours:

- Recognises and articulates problems
- Initiates balanced discussion of options, pros and cons with relevant team members
- Asks for opinion of other colleagues
- Discusses published guidelines

Poor behaviours:

- No discussion of options
- Does not solicit views of other team members
- Ignores published guidelines

Selecting and communicating option — Choosing a solution to a problem and letting all relevant personnel know the chosen option.

Good behaviours:

- Reaches a decision and clearly communicates it
- Makes provision for and communicates 'plan B'
- Explains why contingency plan has been adopted

Poor behaviours:

- Fails to inform team of surgical plan
- Is aggressive/ unresponsive if plan questioned
- Shuts down discussion on other treatment options
- Only does what she/he thinks is best or abandons operation
- Selects inappropriate manoeuvre that leads to complication

Implementing and reviewing decisions — Undertaking the chosen course of action and continually reviewing its suitability in light of changes in the patient's condition. Showing flexibility and changing plans if required to cope with changing circumstances to ensure that goals are met.

Good behaviours:

- Implements decision
- Updates team on progress
- Reconsiders plan in light of changes in patient condition or when problem occurs
- Realises 'plan A' is not working and changes to 'plan B'
- Calls for assistance if required

Poor behaviours:

- Fails to implement decisions
- Makes same error repeatedly
- Does not review the impact of actions
- Continues with 'plan A' in face of predictably poor outcome or when there is evidence of a better alternative
- Becomes hasty or rushed due to perceived time constraints

Communication and Teamwork: Skills for working in a team context to ensure that the team has an acceptable shared picture of the situation and can complete tasks effectively.

Exchanging information — Giving and receiving knowledge and information in a timely manner to aid establishment of a shared understanding among team members.

Good behaviours:

- Talks about the progress of the operation
- Listens to concerns of team members
- Communicates that operation is not going to plan

Poor behaviours:

- Fails to communicate concerns with others
- Attempts to resolve problems alone
- Does not listen to team members
- Needs help from assistant but does not make it clear what assistant is expected to do

Establishing a shared understanding — Ensuring that the team not only has necessary and relevant information to carry out the operation, but that they understand it and that an acceptable shared 'big picture' of the case is held by team members.

Good behaviours:

- Provides briefing and clarifies objectives and goals before commencing operation
- Ensures team understand the operative plan before starting
- Encourages input from all members of the team
- Ensures relevant members of team are comfortable with decisions
- Checks that assistant knows what they are expected to do
- Debriefs relevant team members after operation, discussing what went well and problems that occurred

Poor behaviours:

- Does not articulate operative plan to team
- Does not make time for collective discussion and review of progress
- Fails to discuss the case beforehand with unfamiliar team members
- Makes no attempt to discuss problems and successes at end of operation
- Fails to keep anaesthetist informed about procedure (e.g. to expect bleeding)
- Appears uncomfortable discussing the operative plan if challenged

Co-ordinating team activities — Working together with other team members to carry out cognitive and physical activities in a simultaneous, collaborative manner.

Good behaviours:

- Checks that other team members are ready to start operation
- Stops operating when asked to by anaesthetist or scrub nurse
- Ensures that team works efficiently by organising activities in a timely manner

Poor behaviours:

- Does not ask anaesthetist if it is OK to start operation
- Proceeds with operation without ensuring that equipment is ready

Leadership: Leading the team and providing direction, demonstrating high standards of clinical practice and care, and being considerate about the needs of individual team members.

Setting and maintaining standards — Supporting safety and quality by adhering to acceptable principles of surgery, following codes of good clinical practice, and following theatre protocols.

Good behaviours:

- Introduces self to new or unfamiliar members of theatre team
- Clearly follows theatre protocol
- Requires all team members to observe standards (e.g. sterile field)

Poor behaviours:

- Fails to observe standards (e.g. continues even though equipment may be contaminated or inadequate)
- Breaks theatre protocol
- Shows disrespect to the patient

Supporting others — Providing cognitive and emotional help to team members. Judging different team members' abilities and tailoring one's style of leadership accordingly.

Good behaviours:

- Modifies behaviour according to trainee needs
- Provides constructive criticism to team members
- Ensures delegation of tasks is appropriate
- Establishes rapport with team members
- Gives credit for tasks performed well

Poor behaviours:

- Does not provide recognition for tasks performed well
- Fails to recognise needs of others
- Engages in 'tunnel vision' approach to technical aspects of operation
- Shows hostility to other team members (e.g. makes sarcastic comments to nurses)

Coping with pressure — Retaining a calm demeanour when under pressure and emphasising to the team that one is under control of a high-pressure situation. Adopting a suitably forceful manner if appropriate without undermining the role of other team members.

Good behaviours:

- Remains calm under pressure
- Emphasises urgency of situation (i.e. by occasionally raising voice)
- Takes responsibility for the patient in emergency/ crisis situation
- Makes appropriate decision under pressure
- Delegates tasks in order to achieve goals
- Continues to lead team through emergency

Poor behaviours:

- Suppresses concern over clinical problem
- 'Freezes' and displays inability to make decisions under pressure
- Fails to pass leadership of case when technical challenge requires full attention
- Blames everyone else for errors and does not take personal responsibility
- Loses temper