



# A Stepwise Quality Improvement Checklist for Federal Tertiary Hospitals

## **SURGICAL SERVICES & OPERATING THEATRES**

*An Assessment Tool to Strengthen the  
Management and Quality of Surgical Services*



# INTRODUCTION



## Context

### *Continuous Quality and Safety Improvement in Federal Tertiary Hospitals*

#### **Tertiary Hospitals Surgical Services and Operating Theatres**

The surgical theatre is a home for life saving interventions where surgical operations are carried-out in an aseptic environment. A well structured surgical service is a vital and necessary part of any hospital as it impacts on the patients flow through the hospital.

The operating theatre complex represents an area of considerable expenditure in a hospital budget and require maximum utilization to ensure optimal cost-benefit. The efficiency and quality of surgical services depends on scheduling, expediency, drugs, equipment, infection control, leadership, management and teamwork.

A modern theatre in any tertiary hospital must fulfil the following criteria to ensure that quality service delivery are provided at all time to the patient:

- The theatre facilities must be safe for all minor and major, elective and emergency surgical procedures
- The theatre must be equipped with modern and functional equipment that will ensure high success rate in surgical procedures.
- The theatre unit must provide comfortable environment for both patients and theatre staff.
- The theatre must always prioritize infection control.

## Objectives of this Checklist

This quality assessment checklist will provide **direction, support, and accountability framework** while focussing on individuals, systems, management of resources and self-governance. It will build corporate accountability for operating theatre performance into surgical service management model and develop a corporate culture in which quality improvement becomes a shared enterprise through shared learning and information. It will also provide strategic opportunities to diagnose and repair broken processes.

Frequent, accurate assessment and timely feedback will support action plans to implement systems that are lacking and revive those that are not functioning effectively.

This checklist therefore represents a clinical governance assessment tool to determine:

- 1) The quality of surgical services.
- 2) The quality of patient safety strategies put in place in the operating theatres.
- 3) The quality and competency level of clinical and non-clinical support services in the theatre and their impact on patient outcomes.
- 4) The level of process capabilities
- 5) The utilization and efficiency of operating theatres.
- 6) Areas for improvement.
- 7) The quality of surgeries vis-a-vis the total number of surgeons in the faculty.





## Assessment Scoring

The contents of this checklist have been awarded point values based on their relative importance. Responses to all questions must be either **“Yes” or “No” or “Not Applicable” (NA)**.

The checklist has considerable overlap and expanded to include important continuous quality tools.

### **NOTE:**

- *Only responses marked yes should be given the allotted points. All the required answers to a particular question must be present before you can indicate a “yes” for any given checklist question and then award the corresponding allotted points.*
- *It is often not necessary to ask all the checklist questions verbatim. An experienced auditor can often learn to answer multiple checklist questions through open-ended questions with the key or designated staff contact.*

This checklist is divided into different aspects of Quality Management System that the department is required to develop and implement regularly as listed below;

<b>Assessment Score Sheet</b>					
<b>Sections</b>		<b>Total Allotted Scores</b>	<b>Assessed Scores</b>	<b>Assessed Scores</b>	<b>Assessed Scores</b>
2.0	Staffing Summary	38			
2.1	Facility and Safety	28			
2.2	Organisation and Management	22			
2.3	Patients' Engagement and Communication	11			
2.4	Infection Control	20			
2.5	Occurrence/Incidence Management	12			
2.6	Waste Management	10			
<b>Total Scores</b>		<b>141</b>			



## General Information

Date of Assessment	
Name(s) and Affiliation(s) of Assessor(s)	
Name of Federal Tertiary Hospital:	
Address	
State:	
Telephone:	Email
Name of CMD/MD:	Telephone/E-mail (CMD/MD):
Name of Head of Surgical Services	Telephone (Head of Surgical Services)
Number of surgeons in the department:	Utilization/efficiency of surgical suites <i>(percentage of time used to time allocated):</i>
Number of surgical suites:	Type of surgical suites:
Annual number of surgeries:	Annual number of reschedule surgeries:
Annual number of emergency surgeries:	Average waiting time for elective surgeries:
Annual number of elective surgeries:	Annual number of unplanned returns (complications):
Annual number of minimum invasive surgeries:	Annual number of referred cases:
Annual number of invasive surgeries:	Number of Mortality:
Number of Surgical site infection cases:	



## 2.0 Staffing Summary

Staff	Number of Full Time Equivalents (FTEs)	Number of Surgeries per week	Adequate for Facility Operations			Allotted Scores	Assessed Scores
			Yes	No	Insufficient Data		
Cardiothoracic Surgeons						3	
General Surgeons						3	
Neuro Surgeons						3	
Oral and Maxillofacial Surgeons						3	
Paediatric Surgeons						3	
Plastic Surgeons						3	
Trauma & Orthopaedic Surgeons						3	
Urology Surgeons						3	
Vascular Surgeons						3	
Academic Surgeons						3	
Anaesthetic Consultant						3	
Anaesthetic Technician						1	
Anaesthetic Nurses						1	
Theatre Nurses						1	
Porters						1	
Theatre Cleaners						1	
<b>Subtotal</b>						<b>38</b>	

For each item, please circle either Yes, No, or Not Applicable (N/A). All elements of the question must be satisfactorily present to indicate "yes" and award credit. Provide explanation or further comments for each "no" or "n/a" response.

	YES	NO	N/A	Comments	Allotted Scores	Scores Assessed
<b>2.1 FACILITY &amp; SAFETY</b>						
Is the theatre unit located quite away from human traffic flow area within the hospital?	YES	NO	N/A		2	
Is it located close to patient source? i.e. the ward.	YES	NO	N/A		1	
<b>Standard:</b> <i>The theatre unit must be located far away from high human traffic area within the hospital, but close enough to the patients source, i.e. the ward.</i>						
Are the operating rooms spacious enough?	YES	NO	N/A		2	
<b>Standard:</b> <i>Operating rooms must be spacious enough to avoid crowding of the surgical team and equipment at all times.</i>						
Are there appropriate fitted theatre tables?	YES	NO	N/A		1	
Are the operating lights appropriate? i.e. they do not cast shadows?	YES	NO	N/A		1	
<b>Standard:</b> <i>Operating lights must be bright enough and not cast any shadow over the operating tables.</i>						
Is there provision for emergency lights in the operating rooms?	YES	NO	N/A		2	
Is the oxygen supply available through fixed pipes and via cylinders?	YES	NO	N/A		2	
Are monitors available for each theatre room?	YES	NO	N/A		2	
Is there an anaesthetic machine available in each theatre?	YES	NO	N/A		2	
Are these machine serviced regularly with the date of last serviced shown?	YES	NO	N/A		1	
<b>Standard:</b> <i>Anaesthetic machines are to be available in each of the theatre units in the hospital and must be regularly serviced with date of last servicing displayed on the machine at all times.</i>						
Is there any spare functional anaesthetic machine available in the main theatre unit?	YES	NO	N/A		1	
Is there available constant running water and press on scrubbing fluid in the scrubbing room?	YES	NO	N/A		1	
Are there designated changing rooms? i.e. for male and female surgeons & nurses.	YES	NO	N/A		2	
<b>Standard:</b> <i>Theatre changing rooms should be designated for at least male and female sections.</i>						
Is there a purpose built recovery room equipped with monitors?	YES	NO	N/A		2	



Is there any security measures around the theatre unit?	YES	NO	N/A		1	
Is the theatre unit manned by a trained theatre nurse?	YES	NO	N/A		1	
Is there adequate storage space for surgical procedure drugs and consumables?	YES	NO	N/A		1	
Is there adequate power supply back-up for the theatre unit at all times?	YES	NO	N/A		3	
<b>Standard:</b> <i>The hospital must provide undisputed power supply to the theatre units at all times</i>						
<b>Subtotal</b>					<b>26</b>	

	YES	NO	N/A	Comments	Allotted Scores	Scores Assessed
<b>2.2 ORGANISATION &amp; MANAGEMENT</b>						
Does the hospital have a designated senior clinical officer in-charge of the theatre unit?	YES	NO	N/A		2	
Does the department have a long and short-term strategic plan for continuous quality, utilization and efficiency of operating theatres?	YES	NO	N/A		3	
Does the hospital have a developed policy on elective and emergency surgical operations?	YES	NO	N/A		2	
Are there developed standard operating procedures and guidelines on the various surgical procedures and key operations of the theatre units?	YES	NO	N/A		3	
Are these policy documents, SOPs and surgical checklists reviewed and updated regularly?	YES	NO	N/A		2	
<b>Standard:</b> <i>The hospital management should develop and regularly review policies for carrying out elective and emergency surgical procedures and ensure that there are SOPs and guideline checklists for all surgical procedures.</i>						
Are the theatre staff trained on effective use these checklists and procedures to ensure best practices at all times?	YES	NO	N/A		2	
<b>Standard:</b> <i>Management should organise regular in-house training for theatre staff and surgical team on the policy and procedural documents to ensure best practices are adhered to at all times in the theatre unit.</i>						
How often are in-house clinical update training for the surgical team?	Weekly		Monthly	Quarterly	Annually	2
Is there a regular staff meeting for the theatre unit team?	YES	NO	N/A		1	
Are daily surgical tasks and schedule clearly assigned, communicated to the relevant surgical team in time and monitored?	YES	NO	N/A		1	
Is there a system for regular competency and performance assessment of theatre staff?	YES	NO	N/A		2	

	YES	NO	N/A	Comments	Allotted Scores	Scores Assessed
Does the hospital have a policy to check and manage workplace stress for staff of the department.	YES	NO	N/A		2	
<b>Standard:</b> Hospitals should put in place a policy and ensure that workplace stress audit is periodically carried out in the department as this can impact on quality and workplace behaviour.						
How often are all listed operations for a surgery day carried out on the same day?	Always <input type="checkbox"/>	Most of the times <input type="checkbox"/>			3	
	Hardly <input type="checkbox"/>	Often <input type="checkbox"/>				
<b>Standard:</b> Management should ensure adequate preparations are made in terms of clinical and support manpower, operational logistics and functional equipment before surgery days to avoid postponement of listed patients surgery and the psycho-economic impact on the already listed patients						
Does this institution adopt any community health care service? e.g. outreach programmes in rural communities.					3	
<b>NOTE:</b> Ask key contact to show evidence of community outreach programmes in rural areas, e.g. cataract, diabetes, hypertension campaigns and screening.						
Does the institution provide residency training in rural medicine, rural surgery?					3	
<b>Standard:</b> Ideally, tertiary institutions especially the University Teaching Hospitals are expected to provide residency training in rural and community medicine.						
Does the institution provide any sub-specialised clinical services? e.g. assisted reproduction, open heart surgery, kidney transplant, etc.					5	
<b>Subtotal</b>					<b>36</b>	

## 2.3 PATIENTS' ENGAGEMENT AND COMMUNICATION

Does the theatre clinical team practice the minimum of 2 patients identifier system in which the patient also participate?	YES	NO	N/A		2	
<b>Standard:</b> The hospital must adopt at least 2 patients identifier system which the patient also participate to confirm the right care is being given to the right patient per time.						
Does the theatre team respect the patients' rights, beliefs and values according to the hospital policy?	YES	NO	N/A		1	
<b>Standard:</b> Patient's rights, beliefs and values must be respected as far as it is reasonably practicable when receiving care.						
Do the surgical team receive informed consent from patients at all times before performing an invasive procedure in accordance with the Federal Government and Hospital policy?	YES	NO	N/A		3	
<b>Standard:</b> Informed consent must be required from all patients and documented in accordance with the government law before care providers initiate any invasive procedure.						
Are patients educated on their medical condition(s) and intended procedures so they can make informed decisions?	YES	NO	N/A		2	
Are patient's informed decisions clearly documented in patient's note?	YES	NO	N/A		2	
Are patient's communicated with the language they mostly understand?	YES	NO	N/A		1	
<b>Subtotal</b>					<b>11</b>	

For each item, please circle either Yes, No, or Not Applicable (N/A). All elements of the question must be satisfactorily present to indicate "yes" and award credit. Provide explanation or further comments for each "no" or "n/a" response.

	YES	NO	N/A	Comments	Allotted Scores	Scores Assessed
<b>2.4 INFECTION CONTROL</b>						
Is there any hand hygiene guidelines posted in the theatre unit areas?	YES	NO	N/A		2	
<b>Standard:</b> <i>The WHO or CDC hand hygiene guidelines must be followed and visibly posted around the theatre unit area for all staff to see and comply.</i>						
Are personal protective equipment (PPEs) readily available for use whenever required in the theatre?	YES	NO	N/A		2	
<b>Standard:</b> <i>PPEs must be readily available in the theatre unit and should be worn by all theatre staff members -clinical and non-clinical.</i>						
Are PPEs discarded in appropriate disposal bags and disposed as per the hospital policy?	YES	NO	N/A		1	
Are new theatre staff trained on the appropriate use of PPEs?	YES	NO	N/A		1	
Is there a documented/log for cleaning procedure in the theatre unit?	YES	NO	N/A		2	
<b>Standard:</b> <i>The theatre unit must have written cleaning procedures and ensures it is accessible, read and understood by all theatre team.</i>						
Are theatre staff trained on the appropriate cleaning of the theatre rooms and the correct use of disinfectants?	YES	NO	N/A		2	
<b>Standard:</b> <i>Theatre staff must be trained regularly on the appropriate cleaning of the theatre rooms and the correct use of cleaning disinfectants (at least once a year)</i>						
Are theatre gowns changed for every new procedure?	YES	NO	N/A		2	
Are used gowns/aprons separated into leak proof containers for the laundry?	YES	NO	N/A		1	
Are theatre medicines and consumables kept in clean and safe cupboards?	YES	NO	N/A		1	
Are sharps used in the theatre unit disposed off in correct sealable sharps bins?	YES	NO	N/A		1	
Are these sharps bins adequately available for the theatre unit at all times?	YES	NO	N/A		1	
Are soiled procedure equipment soaked in disinfectants before removal from the theatre?	YES	NO	N/A		2	
Is there adequate water supply and scrub in the theatre unit?	YES	NO	N/A		2	
Is there an air flow regulator installed in the theatre?	YES	NO	N/A		3	
Is this regulator functional at all times?	YES	NO	N/A		2	
<b>Standard:</b> <i>There must be air flow regulators installed in the theatres to ensure that air flow pattern are directed to minimize infection.</i>						
<b>Subtotal</b>					<b>25</b>	

For each item, please circle either Yes, No, or Not Applicable (N/A). All elements of the question must be satisfactorily present to indicate "yes" and award credit. Provide explanation or further comments for each "no" or "n/a" response.

	YES	NO	N/A	Comments	Allotted Scores	Scores Assessed
<b>2.5 OCCURRENCE / INCIDENT MANAGEMENT</b>						
Is there any incident record book in the theatre unit?	YES	NO	N/A		2	
<b>Standard:</b> There must be an incidents record book in the theatre unit according to hospital policy and a designated senior clinical officer to oversee the management of recorded incidents in the theatre unit.						
Are theatre staff and the surgical team made aware and encouraged to fill in the incidents record book?	YES	NO	N/A		2	
<b>Standard:</b> Management are expected to practice a non-punitive and no-blame culture on reported incidents so as to encourage staff to report and respond to incidents in a timely manner.						
Are patient safety incidents during surgical procedures identified and reported on time?	YES	NO	N/A		3	
Are these incidents managed and responded according to the hospital incidence policy?	YES	NO	N/A		2	
Are reported patient adverse-events collated and analysed periodically to identify trends and used to improve the quality of surgical patient care services in the hospital?	YES	NO	N/A		3	
<b>Standard:</b> Hospital management should use collated adverse incident records to inform strategic actions that will prevent or reduce reoccurrence rate.						
<b>Subtotal</b>					<b>12</b>	

	YES	NO	N/A	Comments	Allotted Scores	Scores Assessed
<b>2.6 WASTE MANAGEMENT</b>						
Are all the theatre clinical and non-clinical staff conversant with hospital waste management policy?	YES	NO	N/A		2	
<b>Standard:</b> The hospital must have a waste management policy and ensure that all relevant clinical and non-clinical staff are aware, trained and understand the policy.						
Are waste segregation performed as appropriate at the site of generation in the theatre rooms?	YES	NO	N/A		2	
<b>Standard:</b> Waste segregation done at its site of generation reduces the volume of cross-contamination during transportation to disposal site.						
Are medical wastes collected in covered leak-proof containers from the theatre rooms always?	YES	NO	N/A		3	
Are medical wastes collected to the centralised disposal sites daily?	YES	NO	N/A		3	
<b>Standard:</b> Wastes generated from surgical procedures must be collected daily to the centralised waste collection area.						
<b>Subtotal</b>					<b>10</b>	



## SUMMARY

Noted Challenges:

Noted Recommendations: