



Requirements Checklist for Hospitals

[WHO Surgical Safety Checklist.pdf](#)

World Health Organization SURGICAL SAFETY CHECKLIST (FIRST EDITION)		
Before induction of anaesthesia	Before skin incision	Before patient leaves operating room
SIGN IN <ul style="list-style-type: none"><input type="checkbox"/> PATIENT HAS CONFIRMED<ul style="list-style-type: none">• IDENTITY• SITE• PROCEDURE• CONSENT<input type="checkbox"/> SITE MARKED/NOT APPLICABLE<input type="checkbox"/> ANAESTHESIA SAFETY CHECK COMPLETED<input type="checkbox"/> PULSE OXIMETER ON PATIENT AND FUNCTIONINGDOES PATIENT HAVE A:<ul style="list-style-type: none">KNOWN ALLERGY?<ul style="list-style-type: none"><input type="checkbox"/> NO<input type="checkbox"/> YESDIFFICULT AIRWAY/ASPIRATION RISK?<ul style="list-style-type: none"><input type="checkbox"/> NO<input type="checkbox"/> YES, AND EQUIPMENT/ASSISTANCE AVAILABLERISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?<ul style="list-style-type: none"><input type="checkbox"/> NO<input type="checkbox"/> YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED	TIME OUT <ul style="list-style-type: none"><input type="checkbox"/> CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE<input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM<ul style="list-style-type: none">• PATIENT• SITE• PROCEDUREANTICIPATED CRITICAL EVENTS<ul style="list-style-type: none"><input type="checkbox"/> SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?<input type="checkbox"/> ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?<input type="checkbox"/> NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?<ul style="list-style-type: none"><input type="checkbox"/> YES<input type="checkbox"/> NOT APPLICABLEIS ESSENTIAL IMAGING DISPLAYED?<ul style="list-style-type: none"><input type="checkbox"/> YES<input type="checkbox"/> NOT APPLICABLE	SIGN OUT <ul style="list-style-type: none">NURSE VERBALLY CONFIRMS WITH THE TEAM:<ul style="list-style-type: none"><input type="checkbox"/> THE NAME OF THE PROCEDURE RECORDED<input type="checkbox"/> THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)<input type="checkbox"/> HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)<input type="checkbox"/> WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED<input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

Example Videos to Demo on

- <https://www.youtube.com/watch?v=yWbtvQhbwGk> (Phase 3)
- <https://www.youtube.com/watch?v=4X6aNWGqCyE> (Phase 1)

Fundamental Components of Surgical Safety Checklists

1. WHO Surgical Safety Checklist Framework

The gold-standard protocol consists of three temporal phases with 19 mandatory verification points²¹³¹⁷:

Phase 1: Sign-In (Pre-Anesthesia)

- **Patient Identification:** Dual-identifier confirmation (name/DOB) with cross-checked consent forms³¹⁴
- **Risk Stratification:** Airway difficulty assessment, blood loss predictions (>500mL threshold), and allergy verification¹³¹⁷
- **Equipment Readiness:** Anesthesia machine checks and pulse oximeter functionality validation¹³

Phase 2: Time-Out (Pre-Incision)

- **Team Verification:** Role-specific introductions to improve communication dynamics⁴¹⁴
- **Antibiotic Protocol:** Confirmation of prophylactic administration within 60-minute window¹³¹⁷
- **Imaging Validation:** Display of critical radiological studies with laterality confirmation¹⁴

Phase 3: Sign-Out (Post-Procedure)

- **Instrument Accountability:** Mandatory sponge/needle counts with dual verification¹³
- **Specimen Handling:** Chain-of-custody protocols for labeled biological samples⁷¹⁴
- **Post-Op Planning:** Clear handoff instructions for recovery teams⁴

Institutional Variations and Implementation Challenges

2. Hospital-Specific Protocol Enhancements

Major medical centers have developed custom implementations:

University of Maryland Medical Center

- Requires advance directive verification and parking validation systems¹
- Implements strict NPO protocols with midnight fasting cutoffs¹¹⁶

Mayo Clinic System

- Integrates weight-based antibiotic dosing (7ml/kg pediatric threshold)¹⁶
- Employs automated EHR alerts for medication reconciliation⁹

Orthopedic Specialization (AAOS)

- Mandates deep vein thrombosis prophylaxis verification⁴
- Requires implant serial number documentation⁴

3. Documented Adherence Gaps

Analysis of 2,347 surgical cases reveals critical failure points:

Compliance Metric	Traditional Checklist	Digital Checklist
Sign-Out Completion	37% ¹⁰	100% ¹⁰
Antibiotic Timing	67% ⁶	92% ⁸
Specimen Labeling	78% ¹⁴	100% ⁸
Retained Instrument Prevention	88% ¹³	99.8% ¹¹

Common failure drivers include:

- Interruption-prone manual verification processes¹⁵
- Lack of real-time decision support for complex cases⁹
- Inadequate system integration with EHR platforms⁸