

Introduction to Perioperative Theatre Safety

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Designed as a quick-reference guide for students, new staff, and anyone involved in surgical care.

1. Why Theatre Safety Matters

Reason	Impact
Patient protection	Reduces morbidity, mortality, and post-operative complications.
Staff welfare	Prevents injuries, exposure to hazardous substances, and burnout.
Legal & regulatory compliance	Meets standards from bodies such as WHO, NHS, Joint Commission, and local health authorities.
Financial	Fewer adverse events = lower costs for treatment, litigation, and lost operating time.

2. Core Safety Principles (The “Four Pillars”)

Pillar	Key Elements	Practical Tips
A. Team Communication	- Closed-loop communication - Briefings & debriefings - Standardized language (e.g., “stop the clock”)	- Use the WHO Surgical Safety Checklist at every case. - Encourage any team member to speak up if a safety concern arises.
B. Environment & Equipment	- Proper lighting, temperature, and ventilation - Equipment checks and maintenance - Clear, uncluttered workspace	- Perform a “time-out” equipment check (e.g., suction, diathermy, monitors). - Keep a “ready-room” for emergency equipment (defibrillator, crash cart).

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Pillar	Key Elements	Practical Tips
C. Patient Identification & Preparation	• Two?identifier verification (name + MRN) • Confirm site, side, and procedure • Review allergies, medications, and consent	• Place a visible, legible wristband before induction. • Use a pre?operative “time?out” to verify all data.
	• Hand hygiene • Sterile technique • Antibiotic prophylaxis timing	• Follow the “5 Moments for Hand Hygiene”. • Administer prophylactic antibiotics within 60?min of incision (or 120?min for vancomycin).

3. The WHO Surgical Safety Checklist (Simplified)

Phase	Actions	Who Leads
Sign?in (Before anesthesia)	• Confirm patient identity, procedure, site • Review allergies, airway concerns, anticipated blood loss • Verify prophylactic antibiotics given	Surgeon (or designated senior)
Time?out (Before skin incision)	• Re?confirm identity, procedure, site • Confirm imaging, implants, equipment availability • Ensure team members are ready • Count of sponges, needles, instruments	Anesthetist (or circulating nurse)
Sign?out (Before patient leaves OR)	• Specimen labeling and documentation • Discuss any concerns or postoperative plans	Circulating nurse (or scrub tech)

Tip: Treat the checklist as a **pause for safety**, not a paperwork exercise.

4. Common Hazards & Mitigation Strategies

Hazard	Example	Prevention
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Wrong?site surgery	Operating on the left knee instead of the right	Dual?verification, site marking, checklist “time?out”.
Medication errors	Inadvertent administration of a muscle relaxant before intubation	Label syringes clearly, use separate medication carts, double?check doses.
Fire risk	Ign	