

## Safety Stop: A Valuable Addition to the Pediatric Universal Protocol

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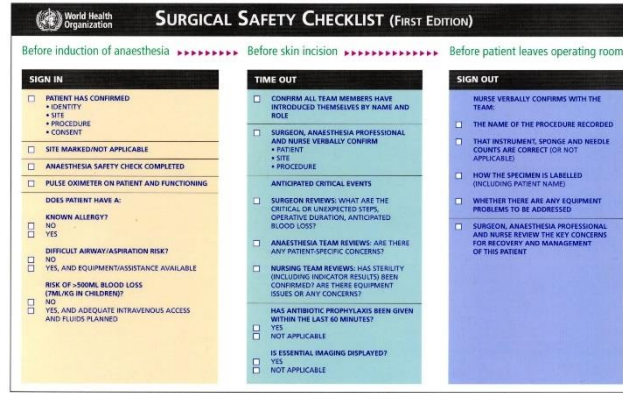
### Problem Definition

- The World Health Organization (WHO) guidelines state that the timeout component of the universal protocol must be performed after patient preparation and draping (P&D) and just prior to incision.
- A mock Joint Commission (JC) survey at our institution revealed that we performed the timeout prior to P&D of the patient, not afterwards, representing both a patient and regulatory risk.

### Approach

- The multidisciplinary perioperative QI team at our free-standing, quaternary care, academic pediatric hospital led the development of a new timeout process.
- An enhanced pediatric universal protocol, which included a new component called the safety stop was created. The safety stop occurred just prior to P&D of the patient and the timeout was performed just prior to incision, aligning with WHO recommendations.
- After electronic correspondence and several perioperative leadership meetings, the enhanced pediatric universal protocol was initiated. Compliance audits were performed to demonstrate comprehensive adoption.

### WHO Universal Checklist



**World Health Organization SURGICAL SAFETY CHECKLIST (FIRST EDITION)**

Before induction of anaesthesia >>>>>>>> Before skin incision >>>>>>>>>>>> Before patient leaves operating room

SIGN IN	TIME OUT	SIGN OUT
<input type="checkbox"/> PATIENT HAS CONFIRMED <ul style="list-style-type: none"> <li>• IDENTITY</li> <li>• SITE</li> <li>• PROCEDURE</li> <li>• CONSENT</li> </ul> <input type="checkbox"/> SITE MARKED/NOT APPLICABLE <input type="checkbox"/> ANAESTHESIA SAFETY CHECK COMPLETED <input type="checkbox"/> PULSE OXIMETER ON PATIENT AND FUNCTIONING DOES PATIENT HAVE A: KNOWN ALLERGY? <input type="checkbox"/> NO <input type="checkbox"/> YES DIFFICULT AIRWAY/ASPIRATION RISK? <input type="checkbox"/> NO <input type="checkbox"/> YES, AND EQUIPMENT/ASSISTANCE AVAILABLE RISK OF <b>SPRINK, BLOOD LOSS</b> (DURING OR OTHERWISE)? <input type="checkbox"/> NO <input type="checkbox"/> YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED	<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"> <li>• PATIENT</li> <li>• SITE</li> <li>• PROCEDURE</li> </ul> ANTICIPATED CRITICAL EVENTS <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? <input type="checkbox"/> YES <input type="checkbox"/> NOT APPLICABLE IS ESSENTIAL IMAGING DISPLAYED? <input type="checkbox"/> YES <input type="checkbox"/> NOT APPLICABLE	<input type="checkbox"/> NURSE VERBALLY CONFIRMS WITH THE TEAM: <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 ISSUES TO BE ADDRESSED <input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.

### Enhanced Pediatric Universal Protocol

Sign In	Safety Stop	Time Out	Sign Out/Debrief
<b>Where:</b> Completed in PreOp	<b>Where:</b> Completed in the OR	<b>Where:</b> Completed in the OR	<b>Where:</b> Completed in the OR
<b>Team Participating:</b> <input type="checkbox"/> Circulating OR RN - <i>Initiates</i> <input type="checkbox"/> Preoperative RN <input type="checkbox"/> Parents/Patients <input type="checkbox"/> Anaesthesia	<b>Team Participating:</b> <input type="checkbox"/> Circulating OR RN - <i>Initiates</i> <input type="checkbox"/> Anaesthesia <input type="checkbox"/> Surgical Attending or Fellow <input type="checkbox"/> Surgical Scrub Person	<b>Team Participating:</b> <input type="checkbox"/> Circulating OR RN - <i>Initiates</i> <input type="checkbox"/> Surgical Attending or Fellow <input type="checkbox"/> Anaesthesiologist <input type="checkbox"/> Surgical Scrub Person	<b>Team Participating:</b> <input type="checkbox"/> Circulating OR RN - <i>Initiates</i> <input type="checkbox"/> Surgical Attending or Fellow <input type="checkbox"/> Anesthetist <input type="checkbox"/> Surgical Scrub Person
<b>When:</b> Immediately prior to leaving Pre-Op.	<b>When:</b> At "anaesthesia ready," Prior to regional block when applicable.	<b>When:</b> Immediately prior to incision	<b>When:</b> At the end of procedure prior to leaving the OR
<b>EVERYONE MUST STOP &amp; ACTIVELY PARTICIPATE</b>			
<b>Components:</b> <input type="checkbox"/> Patient identify/band check <input type="checkbox"/> Procedure & surgeon checked with consent <input type="checkbox"/> Site marking (if applicable) <input type="checkbox"/> Patient allergies & reactions. <input type="checkbox"/> Plan for regional block <input type="checkbox"/> Anaesthesia concerns <input type="checkbox"/> all equipment available/ready	<b>Components:</b> <input type="checkbox"/> Name game (Name & Role) <input type="checkbox"/> Patient identify/band check <input type="checkbox"/> Procedure & Consent Verified <input type="checkbox"/> Site marking <input type="checkbox"/> Antibiotic confirmed & timing <input type="checkbox"/> Postoperative destination <input type="checkbox"/> Fire risk & preventative measures	<b>Components:</b> <input type="checkbox"/> Patient identify <input type="checkbox"/> Consent Procedure <input type="checkbox"/> Procedure Site/Site marking visible in prepped field <input type="checkbox"/> Antibiotic given	<b>Components:</b> <input type="checkbox"/> Name of procedure <input type="checkbox"/> Wound classification <input type="checkbox"/> Status of ID band <input type="checkbox"/> Disposition of counts <input type="checkbox"/> Specimens sent <input type="checkbox"/> Equipment issues <input type="checkbox"/> EBL and fluids <input type="checkbox"/> Blood product disposition <input type="checkbox"/> Recovery concerns
If Applicable: <input type="checkbox"/> Alloway concerns <input type="checkbox"/> Blood availability <input type="checkbox"/> Imaging displayed <input type="checkbox"/> Implants available <ul style="list-style-type: none"> <li>• Procedures with no prep &amp; drape only require a Time Out. Components of Safety Stop are merged into Time Out</li> <li>• Procedures with regional anesthesia combine safety stop with block Time Out</li> </ul>			

### Results

- In 7 OR locations, 60 audits were completed in four weeks.
- 96% (58/60) demonstrated compliance with the new policy.
- During a subsequent JC visit, our enhanced pediatric universal protocol with inclusion of the safety stop was highlighted as a leading practice.

### Key Insights

- Although initially we believed that moving the timeout from prior to P&D to just prior to incision would be a simple solution, flow mapping the complete timeout process identified significant risk of wrong site or wrong patient surgery with this solution.
- This risk was exacerbated by the small body size of pediatric patients being obscured by draping on a typical OR table.

### Reference

- WHO's patient-safety checklist for surgery. Lancet 2008; 372: 1.

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