Post-Surgery Report

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Comprehensive Post-Surgery Report

Patient ID: sample_patient_001 **Date of Surgery:** February 15, 2025 **Report Issue Date:** February 16, 2025

1. **Checklist Performance Review**

Phase: Before Induction of Anaesthesia (Sign-In) - Out of ten checklist requirements, none were marked as completed. This includes critical steps such as confirming patient identity, site, procedure, and patient consent, as well as the anesthesia safety checks and allergy reviews.

Phase: Before Skin Incision (Time-Out) - None of the seven checklist tasks were completed, including crucial tasks such as team introductions, confirmation of patient details, critical event reviews, sterility checks, and antibiotic prophylaxis confirmation.

Phase: Before Patient Leaves Operating Room (Sign-Out) - None of the three checklist items, including verbal confirmation of procedures, were completed.

Overall Compliance: - The absence of documented completion across all checklist phases suggests a high degree of non-compliance with surgical safety protocols.

2. **Vision Data Interpretations**

Numerous batches of visual inputs were assessed, highlighting several significant points:

Completed Actions: - The frames captured activities aligning with checklist items, such as patient identification, allergy review, and surgery consent verification, but these were not documented as completed in the checklist.

- **Skipped or Overlooked Items:** While visual data depicts actions corresponding to checklist tasks, these were not consistently verified as being completed or overlooked within the video frames, indicating potential communication gaps.
- **Specific Actions:** Regular use of surgical checklists and supervision observed through pointing and verifying with surgical teams align with protocol but lack recorded confirmation.
- **Deviations:** No visual deviations from established procedures were noted, although critical checklist actions remain unconfirmed.

3. **Live Surgeon Metrics**

Analysis of the live metrics indicates fluctuating vitals, which deserve attention:

- **Temperature:** Initial low temperatures of ~35.8°C later increased to high levels of ~37.7°C, suggesting fluctuating patient thermal management. - **Oxygen Saturation:** Notably low readings, with saturation dropping to 90%, indicating suboptimal oxygenation. - **Heart Rate:** The patient experienced periods of bradycardia, with heart rates descending to 40 bpm, which are medically concerning.

The recorded metrics signify critical patient vitals were outside optimal ranges, requiring immediate protocol adherence and physiological stabilization.

4. **Preprocessing Data Insights**

The compliance review of pre-operative setup identified several areas needing improvement:

- Instruments were organized on sterile drapes, indicating sterile field maintenance, yet the absence of visible personal protective equipment (PPE) highlights a potential lapse in proper sterile precautions. - There are no clear indications or identification of surgical instruments specific to the patient, implying a possible risk of cross-contamination and non-compliance with instrument identification standards.

Performance Assessment

Overall Performance Score: 2/10

The surgeon's compliance with pre-surgical protocols and intra-surgical procedures was notably deficient, as evidenced by uncompleted checklists and unmet safety protocol standards. The apparent failure to document completion of safety checklists, alongside fluctuating patient vitals, critically impacts the safety and efficacy of the surgical procedure. Immediate steps should be undertaken to rectify checklist adherence, enhance team communication, and stabilize patient vitals to standardize operating procedures and improve patient outcomes.

Recommendations:

1. **Enhance Protocols:** Reinstate completed verification steps in the checklist process to prevent protocol lapses. 2. **Improve Communication:** Strengthen interdisciplinary communication, ensuring all team members actively engage and document each checklist item. 3. **Monitor Vitals:** Implement robust systems for vitals monitoring and intervention timely to manage patient physiology effectively. 4. **Staff Training:** Initiate routine training sessions for surgical teams emphasizing the importance of checklist compliance and proactive monitoring of patient vitals.

This report suggests that revision of processes and stricter adherence to safety protocols should be prioritized to align with established surgical standards.