## **Post-Surgery Report**

The surgical procedure was subject to a review of pre-defined checklist requirements, categorized by separate phases, primarily "Sign In," "Time Out," and "Sign Out":

- \*\*Before Induction of Anaesthesia (Sign In):\*\* Only 2 out of 10 requirements were completed. Key areas left incomplete include confirmation of patient identity, surgical site, procedure, patient consent, allergy checks, and anesthesia safety tests. Successfully ensured pulse oximetry functionality and evaluated the risk for >500 ml blood loss.
- \*\*Before Skin Incision (Time Out):\*\* No tasks completed. Crucial aspects like team introductions, surgical plan confirmations, anticipated critical events, equipment issues, and antibiotic prophylaxis administration were not addressed as per the checklist.
- \*\*Before Patient Leaves Operating Room (Sign Out):\*\* None of the 3 checklist tasks completed, including team confirmation of procedure, instrument count verification, and specimen labeling.

This incomplete checklist adherence indicates significant procedural deviations, potentially compromising patient safety adherence and teamwork efficiency.

\*\*2. Vision Interpretation Summary:\*\*

The vision analysis provided insights into procedural adherence through frame-by-frame examination of surgical actions:

- Successful elements observed included team verification, patient identification protocols, allergy review, and consent verification. These were mostly noted in a textual context without visual confirmation of execution. - There is a notable lack of visual evidence for skipped checklist items or

deviations from procedures. Static frames lack action verification. - Key procedural highlights showed team wearing appropriate surgical attire, handling patient transport and using checklists for confirmation, which suggest a degree of systematic procedural adherence albeit inadequately verified through vision data.

Overall, vision interpretation aligns poorly with checklist completion, suggesting a gap between planned procedures and verifiable actions.

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\*\*3. Live Surgeon Metrics:\*\*

Analysis of live surgeon metrics for the patient (sample\_patient\_001) showed critical variances in vitals:

- \*\*Temperature:\*\* Fluctuated between low and high severities (35.81°C to 37.67°C). High temperatures reached critical thresholds multiple times. - \*\*Oxygen Saturation:\*\* Periodically dipped to low values, with levels dropping to 90% at various points. - \*\*Heart Rate:\*\* Consistently low, with severe bradycardia evidence, often around 40 bpm.

The vitals suggest significant intraoperative physiological instability, necessitating immediate remedial actions such as thermal care, respiratory support, and cardiovascular monitoring.

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\*\*4. Performance Assessment:\*\*

Overall performance analysis considering checklist adherence, vision interpretations, and live metrics presents:

- \*\*Adherence to Protocols:\*\* (Score: 35/100) - Significant procedural failures evident through incomplete checklist compliance and lack of execution verification. - \*\*Team Communication and Safety Practices:\*\* (Score: 50/100) - Although well-documented and intended, practical adherence could not be fully validated via vision insights. - \*\*Vital Management:\*\* (Score: 40/100) - Critical low and high deviations in vitals noted, requiring more stable management interventions.

\*\*Final Surgeon Performance Score:\*\* 42/100

This assessment suggests urgent attention to workflow improvements in checklist adherence, practical application of safety protocols, and effective vital monitoring to enhance surgical outcomes and patient safety. Immediate corrective strategies should be developed to address these critical deficiencies.

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This comprehensive report concludes by emphasizing the need for robust validation and execution of surgical safety practices to prevent intraoperative risks and ensure patient safety.