



A Root Cause Analysis on Safety Process Improvement of Blood Preparation

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INTRODUCTION

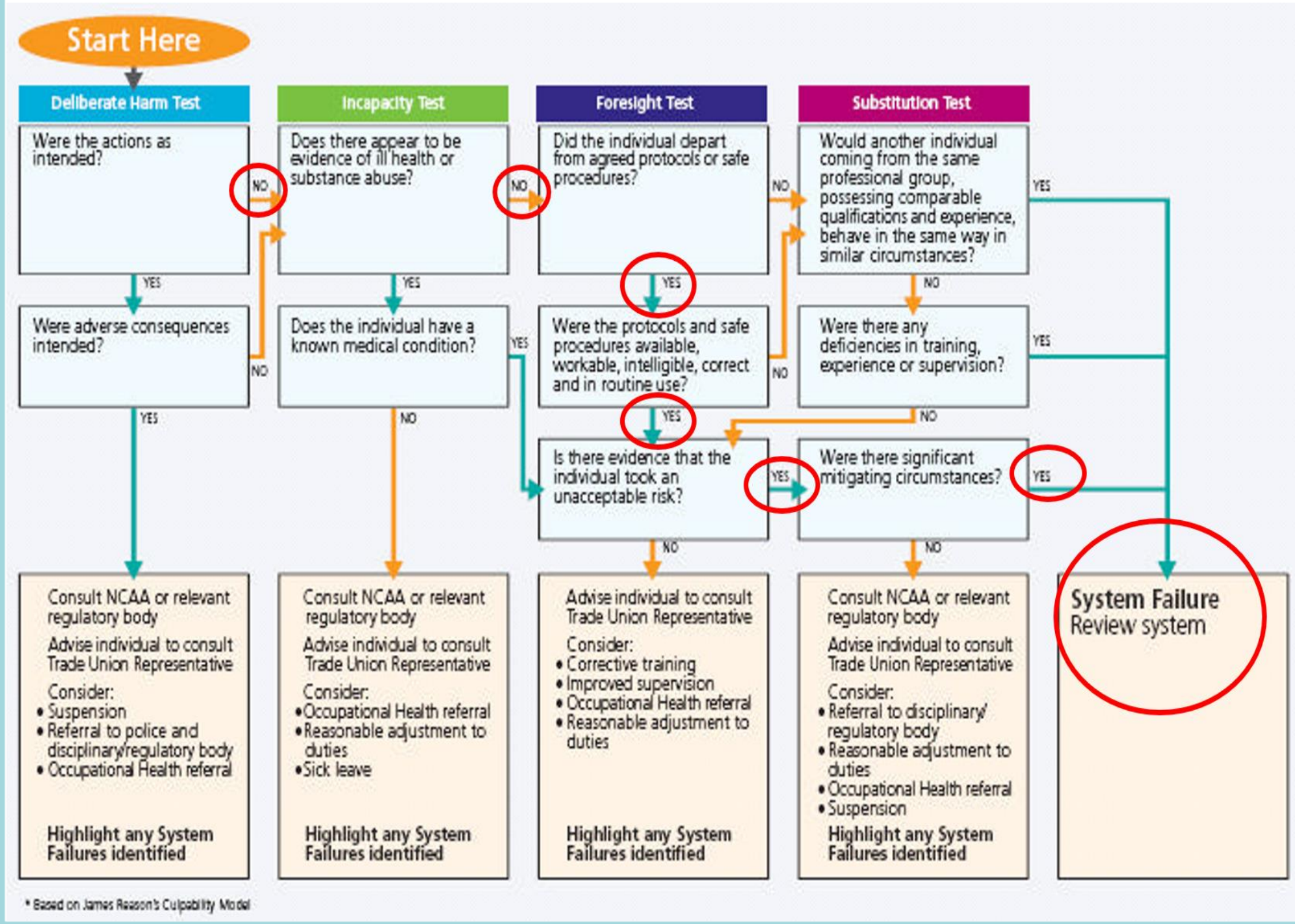
- **Importance of Patient Safety:** Blood preparation errors can lead to severe patient harm, making safety a critical concern.
- **Need for Root Cause Identification:** Identifying the underlying causes of these errors is vital for preventing future occurrences.
- **Application of Root Cause Analysis (RCA):** RCA provides a structured approach to uncover the root causes of adverse events and develop effective corrective actions.

AIM

- **Cause Identification:** Analyzed the blood preparation process in a northern Taiwan medical center to identify underlying causes.
- **Solution Development:** Applied creative problem-solving techniques to propose effective improvement solutions.

METHOD

- **Root Cause Analysis (RCA):** Employed the eight stages of RCA to systematically identify and address errors in the blood preparation process.
- **Analytical Tools:** Used the Severity Assessment Code (SAC) Matrix and Incident Decision Tree to pinpoint specific causes linked to these errors.
- **Expert Collaboration:** Sought expert input to develop and implement tailored strategies for process improvement.



RESULTS

- **Error Identification:** Double-checking errors by nurses were identified as the main issue in blood preparation.
- **'Blood Preparation Safety Month':** November will be 'Blood Preparation Safety Month,' featuring a four-phase improvement plan.

1. **Revising Forms:** The blood preparation sheet will be updated to emphasize the critical double-checking step, with clear changes in both description and format.
2. **Safety Awareness:** Nursing staff will take an e-learning course on blood prep anomalies, improving average scores from 77.2 to 91.2.



3. **Safety Commitment:** Unit supervisors will review dual verification processes, documenting them with photos for safety promotion.
4. **Practical Measures:** Blood preparation audits will include simulations, transitioning competency assessments to a more robust simulated format.



CONCLUSIONS

- **Prioritize Safety:** Emphasizing patient safety in blood preparation is essential.
- **Targeted Interventions:** Educational, procedural, and technological improvements address root causes.
- **Ongoing Monitoring:** Continuous assessment ensures sustained safety.
- **Global Impact:** Sharing our approach contributes to worldwide transfusion safety.

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