

Achieving Zero Specimen Error Events in Our High Reliability Organization Journey

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RELEVANCE & SIGNIFICANCE

- Specimen management has a direct impact on patient care: impacting potential diagnosis, determination of further treatment plans, etc.
- AORN Guidelines on specimen management note that specimen management is a complex process prone to error, however, preventable errors can occur in all phases of management (AORN, 2020)
- Specimen management was identified as an area for targeted improvement, when there were six specimen error events from January to March 2025.

PURPOSE

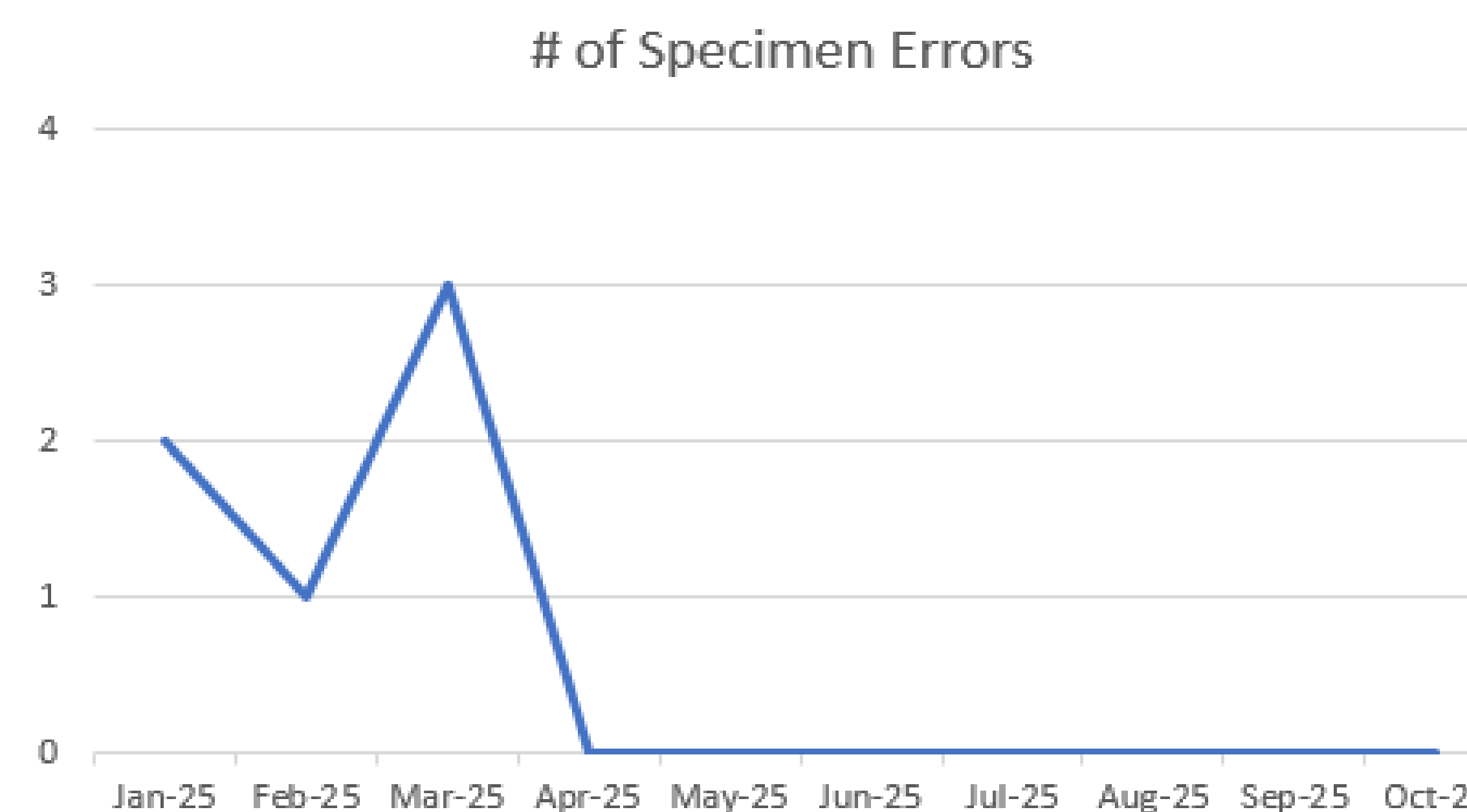
- The goal for this initiative was to eliminate specimen errors and achieve zero harm, aligning with our High-Reliability Organization (HRO) journey and Just Culture principles.

STRATEGY / METHOD

- A dedicated task force was formed, including OR Nurse Managers and Educators. Key strategies included:
 - Enforcing the Just Culture algorithm to assess specimen error events and differentiate system error, human error, at-risk behavior, and reckless conduct.
 - Developing and implementing mandatory education for all OR staff involved in specimen handling (Registered Nurse (RN), Surgical Tech (ST), & Surgical Support Tech (SST)).
 - Requiring staff acknowledgment of expectations and consequences.
 - Collaborating with laboratory staff to ensure reference document with specimen handling tips and accurate contact information (AORN, 2020).
 - Promoting transparency and encouraging staff to report systemic issues and unsafe behaviors.

EVALUATION & OUTCOMES

- All OR staff members (RNs, STs, SSTs) completed mandatory education on the learning management system (LMS / UMMS U) by May 2025.
- Specimen related errors decreased from six (January to March) to zero from April through October 2025.
- Sustained success was celebrated and reinforced through visual reminders and monthly feedback sessions.



IMPLICATIONS FOR PRACTICE

- The reeducation initiative improved all OR staff members' understanding of specimen importance and clarified their role in patient care.
- Leaders can hold staff members accountable while fostering Just Culture that promotes patient safety.
- Accountability includes (Leadership Insights, 2025):
 - Providing appropriate education regularly.
 - Applying the Just Culture framework.
 - Using progressive disciplinary action when necessary.
- While the strategy focused primarily on OR staff members, interdisciplinary collaboration is essential:
 - Standardizing workflows requires engagement from laboratory teams.
 - Collaboration with surgeons during debriefings ensures compliance.

NEXT STEPS

- **Sustain education and accountability (to reduce human error, at-risk behavior, and reckless conduct)**
 - Continue monthly feedback and recognition of success during monthly staff-manager meetings.
 - Integrate specimen management education into onboarding for all relevant roles, including RN, ST, and SST.
 - Maintain documentation in the LMS
 - Encourage reporting of systemic barriers, near misses, and unsafe behaviors to reinforce a culture of safety and transparency.
 - Audit specimen verification during debriefing to ensure adherence to policy.
- **Standardize workflows with laboratory collaboration (to improve system)**
 - Develop and maintain a unified specimen handling reference guide with lab input.
 - Validate specimen labeling and transport processes with laboratory staff.
 - Schedule periodic joint reviews with lab leadership to address systemic issues and update protocols.

REFERENCES

1. AORN. (2020). *Guidelines for perioperative practice: Specimen management*. Retrieved November 11, 2025, from <https://aornguidelines.org/guidleies?bookid=2260>.
2. Leadership Insights (2025, March 27). Promoting a patient safety culture. *AORN Journal*, 121(4), 291-294. <https://doi.org/10.1002/aorn.14329>.

ACKNOWLEDGEMENTS

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