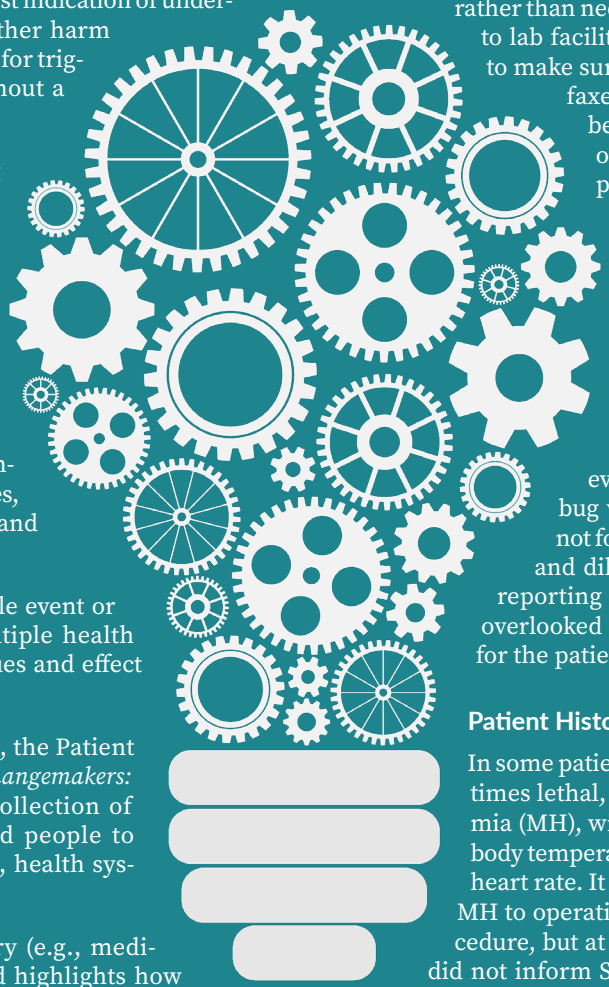
Events That Inspired Change: The Importance of Sharing What Happened to Stop It From Happening Again

By **Eugene Myers**, BA*◆ & **Caitlyn Allen**, MPH◆

DOI: 10.33940/001c.74079
Submitted: March 14, 2023 / Accepted: March 14, 2023

Reporting events that caused harm or could have caused harm to patients is not just a law in Pennsylvania, it's also one of the best ways to improve patient safety. Event reports can be the first indication of underlying problems, regardless of whether harm occurs. They also are essential tools for triggering widespread change throughout a facility—and beyond.



Event reporting isn't about pointing the blame at someone, but about explaining what went wrong so that next time, and every time thereafter, it goes right. When we know what happened, we can understand why it happened, and figure out how to prevent it from happening again. Sharing details about these events—telling the stories behind them—helps other healthcare facilities and staff avoid mistakes, learn from proven best practices, and better care for patients.

These details, whether from a single event or across multiple reports from multiple health systems, can uncover systemic issues and effect widespread change.

With this powerful impact in mind, the Patient Safety Authority (PSA) launched *Changemakers: Stories That Made a Difference*, a collection of stories about events that inspired people to improve care across their hospital, health system, or even nationwide.

Each story is classified by category (e.g., medication, equipment, pediatrics) and highlights how a reported event, whether through the Pennsylvania Patient Safety Reporting System (PA-PSRS) or an internal system, catalyzed improvements. Below are some of the dozens of stories that can be found in our new, searchable microsite.

System Malfunction Results in Incomplete Lab Orders

When a nurse coordinator found out that lab orders could be faxed directly from the Epic electronic health record system, rather than needing to be printed and faxing a hard copy to lab facilities, she decided to test the functionality to make sure it worked correctly and accurately. She faxed orders to her hospital's own fax number, but only received the first page of each order. Since sending incomplete orders puts patients' safety at risk by delaying treatment, she contacted the EpicCare systems analyst for support. He discovered that her Epic department wasn't the only one experiencing the issue—it extended to all departments throughout the hospital. However, he couldn't resolve it internally, so he elevated the problem to the software manufacturer. The nurse coordinator emailed the systems analyst every few weeks for status updates until the bug was finally fixed several months later. If not for her commitment to patient-focused care and diligence in testing a software feature and reporting an issue, this problem might have gone overlooked for much longer, with adverse outcomes for the patients affected.

Patient History Alerts Keep Staff Prepared

In some patients, anesthetics can cause a severe, sometimes lethal, reaction known as malignant hyperthermia (MH), with symptoms such as a dangerously high body temperature, rigid muscles or spasms, and a rapid heart rate. It is important to communicate a history of MH to operating room (OR) staff before a surgical procedure, but at one hospital in 2017, the surgeon's office did not inform Scheduling, Anesthesia, or the OR of the patient's history of MH. Fortunately, it was identified immediately preop and the team took appropriate precautions, resulting in no harm to the patient. However, the near miss prompted the Preadmission Center clinical leader and the OR operations

*Corresponding author
◆Patient Safety Authority
Disclosure: The authors declare that they have no relevant or material financial interests.

manager to investigate the incident to prevent this from happening again, and the clinical risk coordinator referred the issue to the health information technology (Health IT) team and requested an alert to fire when a patient with a history or family history of MH is being planned for surgery. As a result, a multidisciplinary team comprised of Anesthesiology, Preadmission Testing, OR, Health IT, and Risk Management developed new case alerts in the electronic health record for MH. These alerts fire warnings in the form of a patient alert banner ("Patient has a history of malignant hyperthermia.") when a documented history of MH is entered for the patient, whether during scheduling or pre-anesthesia testing or visit, or by OR nurses, the surgeon, or Anesthesia, with reminders to follow the facility's procedures for notifying OR and Anesthesia leadership and update the case comments and medical record.

Uncovering a Widespread, Unidentified Supply Issue

A facility called the PSA with a concern regarding misplacements of nasogastric feeding tubes. Several veteran staff members were suddenly inserting them in patients' lungs instead of their gastrointestinal tract, and the facility wanted to know if anyone else had reported the same issue. Through a review of PA-PSRS, the PSA was able to identify that two other facilities had reported similar scenarios, assist in determining the root cause, and alert others about the issue.

Further investigation revealed that a popular manufacturer had stopped producing the enteral devices, forcing facilities to find an alternative quickly. This facility had ordered a replacement of the same size and type, but communication of the change did not reach frontline staff who were placing the feeding tubes. The staff continued to place the tubes as they always had—without knowing they were using a different product. Once the staff became aware of the change, they commented that the new tubes seemed less pliable and slicker than the previous ones.

Identifying Unanticipated Equipment Failure

An organization reported several heparin infusion events over a year, which prompted several process changes in the electronic health record with the acknowledgement of orders, views within the medication administration record, and labeling of intravenous lines. These events and subsequent changes also led to greater awareness around management of heparin infusions within the organization, as well as more emphasis on hourly rounding to ensure patient safety. As a result, staff was better equipped to recognize problems as they are happening and act quickly to prevent patient harm.

As just one example of the positive impact of reporting adverse events: A patient arrived from the emergency department where a heparin infusion had been initiated. The nurse receiving the patient from the ED checked the infusion pump to make sure that all the settings were correct. Thirty minutes later, she noticed that the 500 mL bag of heparin only had 100 mL remaining; as the infusion had only been running for about 60 minutes, she realized that something was wrong and that the patient had received more heparin than ordered. She called the charge nurse in to look at the pump. The charge nurse immediately stopped the infusion, removed the pump from service, placed an order for a stat partial thromboplastin time (PTT, a blood test to see how long it takes for the blood to clot), notified the night hospitalist, and called the nursing supervisor. They also brought the adverse event to the attention of the nursing director on-call and the patient safety officer.

Ultimately, an investigation of the event revealed a broken hinge inside the pump had caused it to malfunction and alternate between free flow and a regulated drip rate. Because the harsh chemicals used to clean the pumps make the plastic hinges brittle over time, the facility educated and trained staff to look for potential defects, such as small hairline cracks that typically precede this type of break. Any pumps they identify with these cracks are removed from service before the hinge breaks, and the hinge is repaired for the pump is placed back into use.

Changing Procedures for Changing Trachs

Three safety events involving bedside tracheostomy (trach) changes—downsizing and occasionally upsizing—occurred at a hospital in one year, one of which was self-reported by a respiratory therapist to the respiratory manager. In response, the respiratory manager met with the patient safety manager and initiated a review with the respiratory staff. Through this review, they learned that there was no consistent practice for changing trachs and every staff member performed the procedure differently. They also identified other issues: there was no clear place for physicians to order a trach change, and sometimes no order was placed. These findings resulted in process improvements, which included a time-out procedure before a trach is changed, performed by two clinicians (a registered nurse [RN], another respiratory staff member, or a physician) and confirming the correct patient, correct trach and size, and presence of a physician order in the chart. A huddle sheet created for education was provided to the RN, physician, and respiratory staff; a policy was created to outline procedures for trach changes; and sections were added to the physician order for specific information related to the trach change, such as trach type and size. The time-out is documented in the patient's medical record and the respiratory manager frequently reviews the data to ensure compliance. No events related to this error have been documented since the new procedures were implemented.

Be a Changemaker

Visit patientsafety.pa.gov/EventReporting to read and share more stories like these demonstrating the impact of event reporting. If you have a story about how an event inspired staff to make changes that improved patient care and safety at your facility, please consider sending it to the PSA for inclusion in this site.

About the Authors

Eugene Myers (eugemyers@pa.gov) is the associate editor of Engagement and Publications for the Patient Safety Authority. He previously served as the editor-in-chief of Communications, Office of Institutional Advancement, at Thomas Jefferson University and Jefferson Health.

Caitlyn Allen is director of External Affairs for the Patient Safety Authority.