Implementation of a Quality Incident Review Team: Effects on Reporting and Resolution

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Abstract

Background: Incident reporting systems (IRS) are used for gathering data to improve knowledge and decrease errors in the hospital. There is an established need for reporting, with available research focused on patient safety culture, barriers to reporting. Process improvement methods to increase incident reporting, and follow-up for of incidents is lacking in literature.

Method: In April, an Interdisciplinary Quality Incident Review Team (QIRT) was implemented. The QIRT, involved education of staff and managers, incident assignment, and follow-up for resolution. Three measurement times were (1) Baseline (pre-implementation – January through March 2019), (2) 3-month post-implementation data (April through June 2019), and (3) 6-months post-implementation.

Results: Implementation of the QIRT and associated interventions resulted in an increase in overall reporting of patient safety incidents. During the implementation measurement period, there was a 29% increase over the pre-implementation period, and a 37% increase during the post-implementation period. Nursing incidents had the largest decrease in resolution days to an average of 11 in the post-implementation period.

Conclusions: Implementation of the QIRT, increased incident reporting in all areas. Nursing incidents showed the only significant decrease in resolution time. Limitations included involvement of leadership in morning huddles, and knowledge of new leaders in use of the IRS, may have impacted the ability for some managers to complete their incidents.

Keywords: Incident Reporting, Patient Safety, Quality Incident Review, Quality review, Safety Culture

Introduction and Aim

Patient Safety or Incident Reporting Systems became prevalent in healthcare, after publication of the Institute of Medicine's (IOM, 2000) report, "To Err is Human". This report suggested that errors in healthcare occur much more frequently than previously thought, resulting in adverse outcomes for patients. The use of adverse IRS's have been widely adopted, yet it is still recognized that medical errors remain underreported.

Preventable adverse events in healthcare can cost the patient pain and suffering, but also the organization in reputation and dollars (Canaway, Bismark, Dunt, & Kelaher, 2017). In 1999, it was estimated that approximately 93,000 patients die in U.S. hospitals each year from preventable adverse events, and that number has steadily increased over the past two decades. In that time, hospitals nation-wide have been implementing measures focusing on patient safety. The goal of decreasing preventable events carries ethical, physical, and financial implications. Significantly increased length of stay for patients, costs associated with errors, and morbidity and mortality are all known to be results of these events (Canaway, et al., 2017).

The aim of this project was to determine if implementation of an interdisciplinary Quality Incident Review Team (QIRT) and associated interventions would increase incident reporting and time to resolution in an acute care hospital

Methods

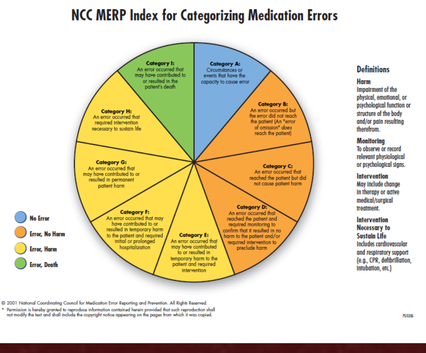
This process improvement project took place at a regional city county non-profit hospital with 126 staffed inpatient beds and a 21 bed Emergency Department.

Education: The first study aim was to launch a QIRT educational campaign, titled the Safety Zone Reboot, included education for current staff and nurse managers, and education for new hospital employees Education on increasing incident reporting and expectations with regard to investigating, responding to, and closing these events was presented for all nurse managers.

Incident Assignment: To aid nurse managers in identification that a new incident was entered, the incident manager began attending the nurse manager daily huddle and would announce new incidents, including the type, where they occurred, and any updates regarding additional information needed.

Quality Incident Review Team: Due to the high volume of pending events prior to implementation, the QIRT initially met weekly to review and manage these events. After six weeks it was decided that the team would be able to meet every other week, and that was carried out for the duration of the study. This team reviewed, supported follow-up, and determined final closure of incidents.

Educational flyer provided to staff at implementation, and then given to new employees at hospital orientation.



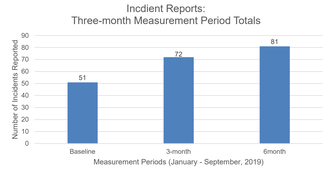
Medication Error Risk Prioritization (MERP) Diagram Retrieved from: https://www.nccmerp.org/types-medication-errors

Data Analysis

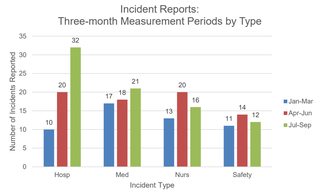
Data reports were collected using the incident reporting system, and compiled into Excel workbooks for analysis. Three measurement times were (1) pre-implementation (January through March 2019), (2) 3-month post-implementation (April through June 2019), and (3) 6-month post-implementation (July through September 2019). At the end of the three-month post-implementation period, incident reporting data was collected and analyzed using descriptive methods and Excel statistical functions

Severity scoring, using the Medication Error Reporting and Prevention (MERP) method, was determined by the Incident Manager. Although this tool was originally created and adopted for use with classifying medication errors, it has been generally accepted as a tool for classifying all patient safety events (Dufek, Ryan-Wenger, Eggleston, & Mefferd, 2017). For inter-rater reliability an additional member from the QIRT was given the incidents and blindly scored a sample of them.

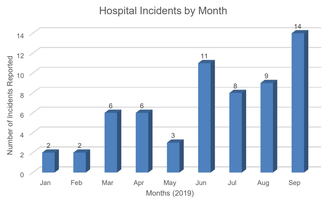
Areas of interest that were analyzed within the data included type of incident, location where the incidents occurred, and incident severity. Resolution of incidents were reviewed from the time that the incident was entered into the system, until the QIRT closed the incident.



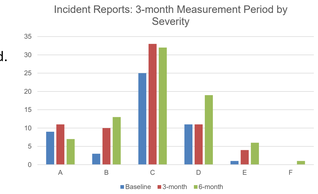
Total reported incidents (Medication errors, Safety, Nursing, Hospital) by 3-month measurement periods.



Incident reports by type (Hospital, Medication Error, Nursing, Safety) for each 3-month measurement periods.



Hospital Incidents reported by month from pre-implementation through post-implementation measurement periods.



Incidents reported by severity for each 3-month measurement period.

Nursing Incident resolution days by month from pre-implementation through post-implementation periods.

Results

The total number of reported incidents increased from 51 to 72 during the April to June period, showing a more than 50% increase in reporting. This increased continued into the post-implementation measurement period with 81 incidents reported.

Other results:

- Hospital incidents had the largest increase in reporting, while medication incidents had the least increase.
- An increase in the locations from which incidents were being reported.
- The majority of incidents that were reported were located on Medical floor, with the Emergency Department being the location with the largest increase in reporting.
- Severity types A, B, C, and E all had an increase in reporting; D and F remained the same.
- Nursing incidents showed the greatest and only significant decrease in time to resolution.

Conclusion

Having a multidisciplinary team to review and analyze incidents, while supporting staff and managers through education, awareness, and expectations has shown to both increase number of reported incidents, and decrease resolution time. This coincides with the goals set forth by the Institute of Medicine and many other governing bodies who endorse the use of IRS's to improve patient safety in the hospital. This is a practice that must be a focus of patient care at all times, and requires dedication from leadership to ensure that staff are reporting and that resolution of these incidents is a priority. The next step for a facility will be to focus on prevention of similar events to improve safety and quality care for patients.

References

Canaway, R., Bismark, M., Dunt, D., & Kelaher, M., (2017). Medical directors' perspectives on strengthening hospital quality and safety. *Journal of Health Organization and Management, 31*(7), 696-712. doi: 10.1108/JHOM-05-2017-0109

Dufek, J.S., Ryan-Wenger, N.A., Eggleston, J.D., & Mefferd, K.C., (2017). A Novel Approach to Assessing Head Injury Severity in Pediatric Patient Falls. Journal of Pediatric Healthcare, p. 1-8. doi: 10.1016/j.pedhc.2017.09.012

Institute of Medicine. 2000. To Err Is Human: Building a Safer Health System. Washington, DC: The National Academies Press. doi: 10.17226/9728

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