Improving Incident Reporting of Low Severity Issues regarding Radiology Procedural Services using an Internal Incident Reporting System

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Purpose

- Adverse patient safety events are the predominant radiology incidents submitted to our institutional incident reporting system. Many anecdotal suggestions for improvement on procedural services revolve around less severe issues, some of which may not be directly related to patient safety.
- There is opportunity to better target quality improvement initiatives by capturing inefficiencies in care delivery identified on the frontlines.
- This study evaluates the utilization of a new internal radiology issue reporting system for issues related to procedural services and the types of issues submitted.
- The aim of this study was to increase non-severe issue reporting regarding procedural services in the radiology department to one submission per week over the course of 6 months (26 weeks).
Methods

• From 3/1/2019 to 9/1/2019, an anonymous, voluntary and confidential internal issue reporting system was launched within our radiology department and was available to any radiology staff.

• Issues involving radiology procedural services were tabulated, and included procedural services related to interventional radiology, body, musculoskeletal or neuroradiology divisions.

• Issue submission consisted of five questions, including issue date, issue category (workflow, communication, patient safety, environmental, IR, professionalism), incident description, involved personnel, and optional entry of contact information for updates.

• A member of the radiology patient quality and safety subcommittee reviewed each case.

• Issues were triaged to appropriate personnel (such as interventional radiology nurse manager, IT, or environmental safety representative).

• Issues requiring subcommittee review were presented at the quarterly meeting.
Results

- 67 issue reports were submitted over 6 months
- The mean number of submissions per week was 2.6 (minimum of 0 and maximum of 9). Our goal of at least 1 submission per week was met in 20 of 26 weeks (78%). There were no trends away from the mean or major shifts to suggest special cause variation
- The majority of submissions were related to daily workflow (63%), followed by communication (12%), patient safety (12%), IT (9%), environmental (3%) and professionalism (1%)
- No patient harm occurred in any of the 8 reported patient safety issues
- All issues were under review or resolved 6 months after study completion
Number of Submissions Per Week Related to Radiology Procedural Services
Number of Submissions Per Week Related to Radiology Procedural Services
(Control Chart)

Mean = 2.6
Upper Control Limit (UCL = 10.1)
Lower Control Limit (LCL = -4.9)
Distribution of Radiology Procedure Issue Submissions by Category

- Workflow: 42
- Communication: 8
- Patient Safety: 8
- IT: 6
- Environmental: 2
- Professionalism: 1

Number of Submissions
42 Radiology Procedure Issue Submissions Related to Workflow

- Patient transport (n=14)
- Patient arrival logistics (n=12)
- Incorrect ordering (n=4)
Conclusions

- Within six months of implementation, an internal radiology reporting system was able to identify 67 issues occurring on procedural services, with an average of 2.6 incidents reported per week.
- The majority of submitted incidents were workflow related, with specific issues of patient arrival and transport providing insight to better direct quality improvement initiatives on procedural services.
- One-time incidents or batches of similar issues were more easily triaged once champions from various roles and departments were involved in the initiative.
- Incident reports requiring systems-based change require a longer amount of time under review than one-time occurrences, which could potentially dissuade future submissions from incident reporters seeking quick turnaround times. Future steps thus also include incorporating feedback from staff who opt in for status updates on their event reports.
- Next steps for this quality initiative is to maintain issue submission over the next 12 months, while improving turnaround times.