Improving Event Reporting in the 9th floor CVICU at Clements University Hospital

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Background

- The healthcare industry frequently misses opportunities for self-improvement due to a general lack of a standardized process for the collection of event reports. Furthermore, a systematic means of mining vital information from collected event reports does not currently exist in healthcare. The combination of both of these problems presents a barrier to the improvement of patient care not only on an institutional level, but on an industrial level.
- According to a study conducted by the WHO, “reporting has led to remarkable improvements in safety through the systematic investigations of events and the understanding and correction of their original failures” in non-healthcare industries.1
- An additional study cited reasons for the lack of event reporting, such as a lack of feedback, no improvement in patient care, and a lack of anonymity.2
- These problems have gained more recognition as of late, and led to this pilot Quality Improvement project in an attempt to improve the current overall process of event reporting in the CVICU. Ideally, by capturing more of the small-scale unintended events, the delivery of healthcare will be improved by fostering the development and use of best-practices in patient care.

Aim Statement

- The aim of this project is to increase event reporting in the CVICU on the 9th floor of Clements University Hospital by 400% from the start of July 2016 to the end of May 2017.
- By increasing event reporting, we will be able to track the impact of the Handover redesign by showing a reduction in unintended events related to the Handover Process

Methods

A quality improvement team was formed at Clements University Hospital for the purpose of assessing/improving the current event reporting process. This project was conducted using the DMAIC model (Define, Measure, Analyze, Improve, Control).

Defining the Process

1. Process flowcharts of all processes

Discussion

Improving the current system DMAIC

A. Detailed process map of the CVICU event reporting process created from key stakeholders and CVICU nurses.
B. Pie chart depicting the important stakeholders and their relative influence on the outcome of the project via their compliance to (nurses) or approval of (Clinical Safety Office) interventions.

Measuring the baseline DMAIC

A. Process control chart of all events on the unit.
B. Process control chart of events that are likely related to the Handover.
C. Bar graph to report percent of handovers that had one or more unintended events.
D. Unintended events of the month indexed by patient days.

Analyzing the barriers to event reporting DMAIC

A. Fishbone diagram detailing various elements contributing to the failure of medical staff to submit unintended event reports.
B. Pareto Chart of the most frequent reasons that medical staff do not submit event reports. The top two reasons being fear of punitive action and lack of time. Those two areas are/will be the sole focus of any interventions implemented in the 9th floor CVICU at CUH. Also worth noting is the lack of feedback, which is an area that, if targeted, will likely show the most rapid improvement in event reporting relative to the two barriers mentioned above.

Results

Improving the current system DMAIC

A. RL Solutions: Quick Submission
B. SAFE Card
C. Control chart showing the change in number of events reported per month in response to the two individual interventions. Quick submit is the same as RL Solutions: Quick Submission and was implemented at the beginning of October 2015. The Safe Card is the anonymous, physical ‘Debriefing’ tool which was implemented at the beginning of December 2015.
D. Control chart showing the number of events reported per month increased as a result of the implementation of the anonymous, physical ‘Debriefing’ tool. (We chose to use control charts to determine whether a particular change in the number of events reported monthly was random or due to our interventions. A month as we described it begins on the first day of a particular calendar month and ends on the last day of the same month.)

Next Steps

1) To continue measuring monthly event reports in order to monitor the sustainability of the two current interventions
2) To finalize an event reporting survey to be distributed hospital wide
3) Get approval for survey and start distributing it to other CUH units
4) Analyze feedback to try to improve current interventions or develop a new one such as a CUH mobile app for event reporting
5) Begin transferring information from SAFE cards into PredCap-based Taxonomy User Interface
6) Complete Improve and Control steps of project

Left: CUH multidisciplinary team members involved in project
Right: Cycle diagram depicting the methods used to conduct this pilot Quality Improvement project