DECREASING HOSPITAL ACQUIRED CONDITIONS BY IMPLEMENTING A NURSE-DRIVEN, PATIENT-FOCUSED, WEB-BASED DATA COLLECTION TOOL

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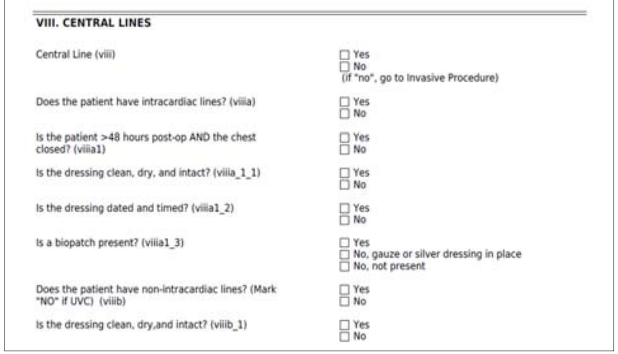
BACKGROUND

Adherence to care bundles is an important strategy to eliminate Hospital Acquired Conditions (HACs). Our Cardiac Intensive Care Unit (CICU) HAC rates lacked consistent performance and we had limited data on bundle compliance. Utilizing a web-based data collection tool, we sought to initiate a paradigm shift to focus assessments and audits on comprehensive patient care rather than auditing individual HACs in order to provide real-time feedback and increase staff knowledge of bundle elements.

RED-CAP DATABASE ENTRY FOR NON-CARDIAC CENTRAL LINES



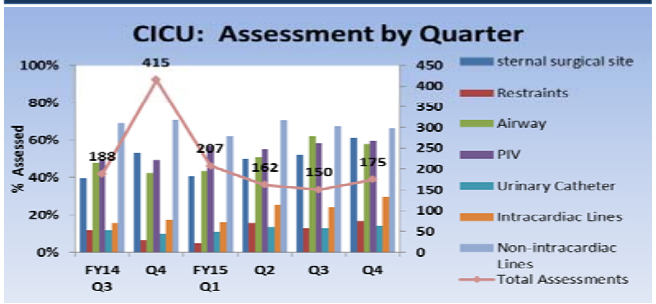
VIII. CENTRAL LINES

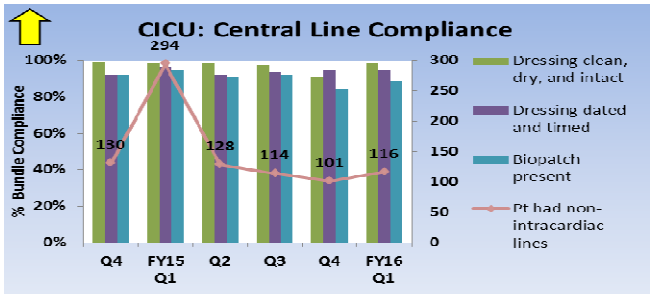
Central Line (viii)	☐ Yes ☐ No (if "no", go to Invasive Procedure)
Does the patient have intracardiac lines? (viiia)	☐ Yes ☐ No
Is the patient >48 hours post-op AND the chest closed? (viiia1)	☐ Yes ☐ No
Is the dressing clean, dry, and intact? (viiia_1_1)	☐ Yes ☐ No
Is the dressing dated and timed? (viiia1_2)	☐ Yes ☐ No
Is a biopatch present? (viiia1_3)	☐ Yes ☐ No, gauze or silver dressing in place ☐ No, not present
Does the patient have non-intracardiac lines? (Mark "NO" if UVC) (viiib)	☐ Yes ☐ No
Is the dressing clean, dry,and intact? (viiib_1)	☐ Yes ☐ No

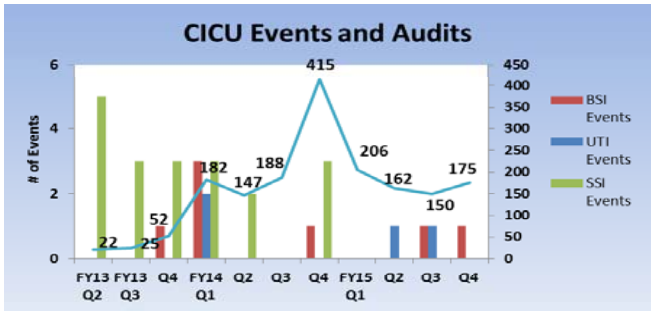
METHODS

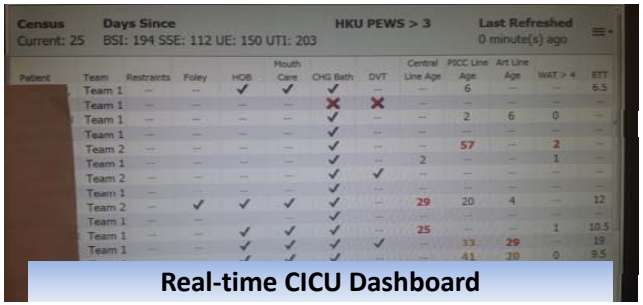
All patients admitted to the Cardiac ICU were included. We conducted a literature review and revised each HAC bundle based on best practice. We created a REDCap web-based data collection tool to assess compliance with the HAC bundles. Our goal was to complete 150 assessments per quarter. Compliance with individual bundle elements and HAC rates were reported to staff monthly.

RESULTS









Real-time CICU Dashboard

RESULTS

After implementation, quarterly audits increased from an average of 25 to >150. The increase in audits temporally correlated with a reduction in multiple HACs. Compared to historical data (FY13 to FY15):

- Cardiovascular-Surgical Site Infections (CV-SSIs) decreased from 4.0 to 0.4 per 100 procedures, with a record of 375 days without an event
- Central Line Associated Bloodstream Infections (CLABSI) decreased from 1.82 to 0.31 per 1000 central line days (2 events in a year)

CURRENT PROJECTS AND GOALS

- Create dashboard generated from EHR to display real-time bundle compliance status
- Increase audit numbers from 50/month to >1200/month thru automatic data collection from EHR
- Update bundle elements as needed to align with SPS
- Continue to provide monthly feedback to bedside nurses

CONCLUSION

Continual assessment of patient-centered HAC bundle compliance is associated with a reduction in CICU HAC rates. We speculate this association is due to increased staff knowledge and real-time feedback to ensure compliance with bundle elements.

REFERENCES

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