EVALUATION OF THE CRITICAL CARE UNIT SCORECARD, ONTARIO

“..what is going well and what we can do better..”

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BACKGROUND

The Critical Care Unit Scorecard is a performance management tool, designed to improve the quality and safety of critically ill patients in Ontario, Canada. Implemented by Critical Care Services Ontario (CCSO) in 2012, the Scorecard is produced quarterly and is electronically disseminated to all 204 critical care units across 112 hospitals in Ontario, Canada. The performance indicators reported in the Scorecard were selected through a participatory process as relevant and useful to all critical care units.

The Scorecard is populated with routinely collected data that is entered in the Critical Care Information System (CCIS) daily by all critical care units. CCIS is the most comprehensive source of province-wide information on access to critical care, quality of care, and outcomes for critically ill patients, and is continually reviewed and evolved. The Scorecard includes a package consisting of (i) the quarterly summary with performance of 13 indicators, (ii) run charts presenting trends across past 12 months, and (iii) tables displaying peer group comparisons, allowing units to compare with ‘like units’ within their assigned group across the province.

AIMS

1. Explore stakeholder perspectives on the relevance and ease of use of the Scorecard package and materials
2. Quantitatively assess the impact of the critical care unit Scorecard implementation on performance of Scorecard indicators

RESULTS

QUALITATIVE

- VOTES OF THE USERS OF THE UNIT SCORECARD
- Interviews were designed to explore participants’ perspectives on format/design, relevance and usefulness of the Scorecard as an information-sharing tool:
  - Most participants appreciated the Scorecard as a useful summary tool which facilitated peer comparisons on various indicators
  - Respondents felt that the scorecard allowed them to focus on the most important indicators and the majority used it to facilitate two-way communication, discussing the findings on a monthly or quarterly basis

EVALUATION DESIGN

- MAIN FINDINGS
- VENTILATOR ASSOCIATED PNEUMONIA (VAP)**
  - Statistically significant decrease in:
    - Absolute number of VAP cases, from 899 to 585 (Fig.1) despite increase in the number of ventilated beds and central line days during the period (Fig.2)
    - Number of units reporting VAP incidents from 54% to 42% (Table 1)
    - Odds of VAP incident rate per 1,000 mechanically ventilated days by 40%
- CENTRAL-LINE INFECTION (CLI)**
  - Statistically significant decrease in:
    - Absolute number of CLI cases, from 626 to 420 (Fig.1)
    - CLI mean incident rate, from 1.36% to 0.697%
    - Number of units reporting CLI cases from 48% to 36% (Table 1)
- OTHER FINDINGS
  - Decrease in absolute number of cases of unplanned extubation, from 2,031 to 1,724 (Fig.1)
  - Decrease in number of units reporting unplanned extubation cases from 80% to 77% (Table 1)
  - Significant increase in antimicrobial use over time

CONCLUSIONS

- Early findings indicate that the tool is a good performance management instrument and is responsive to users’ needs
- Quantitative results demonstrate a statistically significant decrease in CLI and VAP rates, 2-years post implementation

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REFERENCES

1. Critical Care Services Ontario (CCSO), Evaluation Critical Care Information System Unit Scorecard Implementation. 2016