

Evaluation Findings

Critical Care Response Team

How effective is CCRT?



CCRTs are highly capable, multidisciplinary teams comprised of critical care clinicians, extending the skills of the Intensive Care Unit (ICU) to the general ward. Led by intensivists or critical care nurses, CCRTs facilitate the early identification and prompt mobilization of critical care resources to at-risk patients in both adult and paediatric settings.

In 2006, the Ministry of Health and Long-Term Care, (MOHLTC), invested in a phased implementation of CCRTs in selected acute care hospitals of Ontario. The anticipated outcomes for continued investment and implementation of the CCRT initiative required a reduction in non-ICU cardiac arrest rates, code blue rates, unplanned ICU admissions, and hospital mortality in both community and teaching hospitals.

As part of ongoing monitoring of the CCRT program, CCSO undertook an evaluation to assess the impact of CCRT. The evaluation used a “mixed method” post-test only design. Quantitative data from CCIS and qualitative data collected through 14 in-depth interviews

MAIN FINDINGS

Significant decrease in:

1. Hospital mortality rates (teaching sites) over time.
2. Out-of-ICU cardiac arrest rates over time.
3. Out-of-ICU respiratory arrest rates over time.
4. Out-of-ICU code blue rates over time.

CCRT implementation time (duration) is a significant variable impacting above outcomes.

“...So it’s reassuring to know that you can call them [CCRT] and they’ll take over for you when things aren’t going well...” Ward Nurse

with ward staff and CCRT members informed the evaluation.

RESULTS

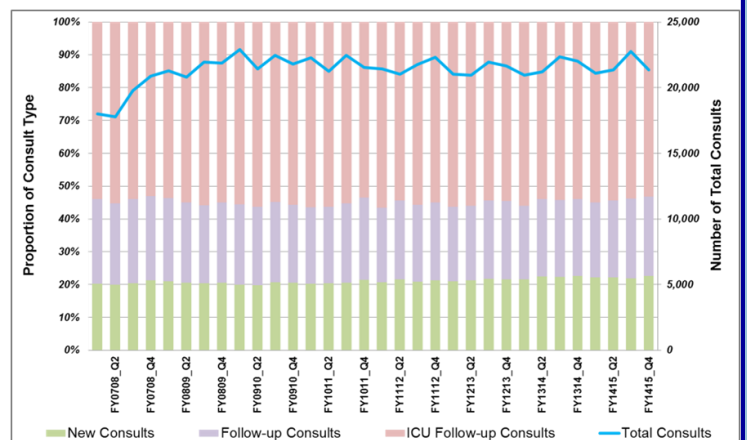
In general, participants interviewed felt that the presence of CCRT teams had an overall positive impact on patient care.

The utilization of CCRT continues to be high

“The nurses love them...I’ve heard several of them say they think it’s the best invention ever.... and CCRT is always responsive to those phone calls.” Ward

(>20,000/quarter). The various kinds of CCRT consults are presented in Figure 1. Of the total 683,630 consults during the evaluation period, 91.7% stayed on the original patient care unit. About 7% of patients were either transferred to ICU or to a step down unit, these findings were similar for both, teaching and community sites.

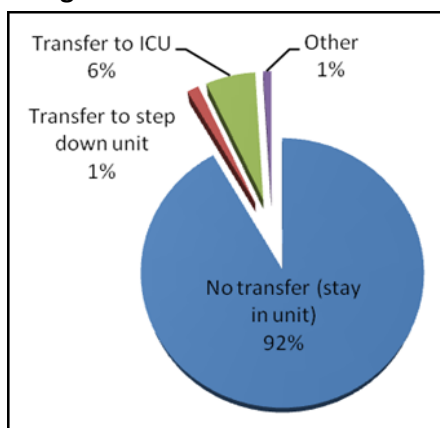
Fig. 1 CCRT utilization per quarter (FY07/08–14/15)



CCRT (2006 funded): Evaluation Findings

Figure 2 presents the results of CCRT consults. The two main reasons for activating CCRT were when heart rate was >130 (HR) and “other” reasons which included RR >30, airway threatened, etc. accounting for about 32% of all activations.

Figure 2 CCRT consult outcomes



In interviews both ward nurses and CCRT members emphasized the CCRT enabled patients to receive specialized and focused care that they might not have otherwise received.

“I think when the critical care response [CCRT] is present in a medical emergency, the patient gets better care, and that really is sort of the whole point ...” CCRT member

“I think they [patients] get attention faster. They get the breadth of the expertise of the ICU quickly, without having to physically go down there” Ward Nurse

Ward nurses reiterated the ability of the CCRT members to “ease stress” by providing a supportive, reassuring presence. They described the CCRT approach to communication as “collaborative” and felt that the CCRT team was responsive and professional.

*“...one of the things I find them excellent at is just broadening our view of the situation, and helping us decide additional things that they can help us treat and manage on the ward.”
Ward Nurse*

“they [CCRT] respond quickly, they are professional” Ward Nurse

CCRT members described how CCRT are able to bring the skills of ICU to the general ward to support ward staff in identifying and managing at-risk patients at bedside.

*“... [CCRT] has really enhanced the exposure of the Department of Critical Care medicine physicians and the critical care nursing staff...”
CCRT member*

In summary, the importance of CCRTs was emphasized by both users and providers of the service and described CCRTs as a valuable, supportive and educational service that facilitates access to intensive care expertise at bedside, and reduces overall barriers to providing patient-centred care.

Critical Care Services Ontario (CCSO)

The Critical Care Services Ontario is responsible for the overall implementation and evolution of the initiatives under Ontario’s Critical Care Strategy. CCSO’s key mandate is to work closely with the field to implement programs that improve access, quality and integration of critical care services to meet the needs of critically ill patients.

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