The Experience with Family-Triggered Activation of the Critical Care Response Team at an Academic Children's Hospital in Ontario

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Objectives:
McMaster Children's Hospital (MCH) is a participant of the multi-center Pediatric Critical Care Response Team (PCCRT) demonstration project with three other academic children's hospitals in Ontario. In keeping with a strong family centered-care philosophy, the role of parental observations in detecting significant clinical deterioration was included in the afferent limb of all four sites using two different models. At the McMaster site, direct activation of the PCCRT by families of admitted patients was incorporated into the activation criteria. Healthcare providers at the three remaining sites were encouraged to activate the PCCRT on behalf of families who raised concern about their children's clinical status. Given the relative paucity of data in the area of family-triggered activation of critical care response teams, we describe the experience with family-triggered activation over the 12-month prospective arm of the Ontario PCCRT demonstration project.

Methods:
MCH is a 119 bed Children's Hospital in Hamilton, Ontario, Canada with a 12 bed PCCU. The PCCRT inception date was January 29th 2007 and data collection for the prospective limb continued until Feb 29, 2008. All families of admitted patients received specific education materials on the PCCRT and when activation of the PCCRT was appropriate. Immediately following family-triggered activation of the PCCRT clinical, demographic and outcome data were inputted into a centrally housed electronic database. At one other site, the Children's Hospital of Eastern Ontario (CHEO) in Ottawa, data following activation of the team from families via healthcare providers was also recorded providing a comparison to direct family-triggered activation.

Results:
From February 2007 to February 2008, 261 new activations to the PCCRT occurred with an average monthly activation rate ranging from 30 – 81 / 1000 hospital admissions. In the same time period, 8 family-triggered activations occurred (3.0%) from 7 different families resulting in 1 admission to the PCCU. In one case the team was activated because a patient handover error occurred between two teams resulting in a patient not having been seen by a physician in a 24-hour period. CHEO reported 8 family calls (3.4%) resulting in no PCCU admissions from a similar denominator of 234 new activations with an average monthly activation rate ranging from 23.3-51.5 /1000 hospital admissions.
Conclusion:
There are many unsubstantiated fears surrounding family-triggered activation of critical care response teams; however, at our site we have shown that direct family-triggered activation accounted for an overwhelmingly small percentage of total call volume to our PCCRT and was similar to the experience at CHEO with an indirect family-calling algorithm. Other important benefits included improved team communication in at least one scenario, and particularly in a pediatric center represented a natural extension of family-centered care.

Conflicts of Interest: None