

Introduction

Rapid Response Teams (RRTs) are activated in non-critical care settings to provide or expedite access to escalated care before patient condition rapidly deteriorates. RRTs facilitate early detection and management of at-risk patients, and function as intermediary tools to reduce rates of emergency “Code Blue” activation. UC Davis Medical Center is unique in that it is one of few major academic medical centers that does not have structural separation between the children- and adult-side of the hospital. There is currently insubstantial literature on the implementation and execution of a Pediatric Rapid Response Team in the setting of a dual children-adult medical center. The Pediatric Rapid Response Team was implemented at UC Davis Children’s Hospital in September 2020.

Objectives

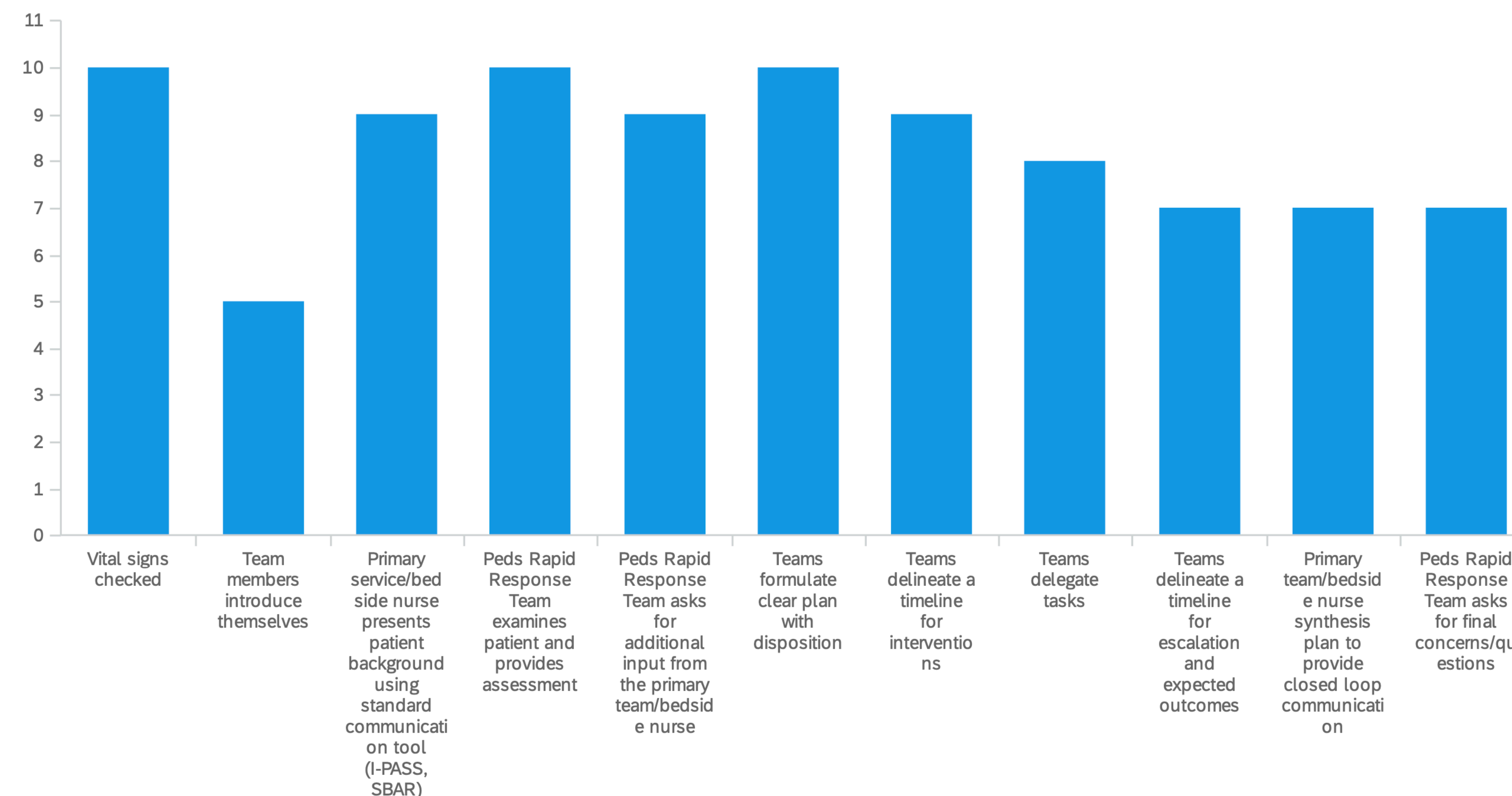
To create a multidisciplinary pediatric care team (Pediatric Rapid Response team) to respond when a provider has concern for patient decline with 75% adherence to the essential tasks of RRT by September 2021.

Methods

Implementation and refinement of the Pediatric RRT through QI-oriented PDSA cycles requires continual data collection. Multidisciplinary care team debriefs after a Pediatric RRT activation. After conclusion of the debrief, pediatric hospitalist will complete Qualtrics survey noting completed essential tasks, successes, and challenges during the activation. De-identified primary endpoint data are collected through Qualtrics.

Results

Data gathered from N = 11 activations since Pediatric RRT launch. Teams accomplished ≥75% adherence in 6 of 11 essential tasks: vital signs checked (90%); I-PASS/SBAR used during patient presentation from primary service/bedside nurse (81%); patient examined and assessed (90%); input solicited from primary team/bedside nurse (81%); clear plan with disposition created (90%); intervention timeline created (81%) [Figure 1]. Essential tasks that did not reach ≥75% threshold included: team introduction (45%); delegation of tasks (73%); delineation of timeline for escalation/expected outcomes (64%); closed loop communication (64%); solicitation of final concerns/questions (64%) [Figure 1]. 2 RRTs dispersed before debriefs occurred.



Three of the most common challenges that Pediatric RRTs experience thus far include 1) system errors, 2) operation or pager issues, and 3) communication issues. As the QI initiative undergoes iterative PDSA cycles, considerations will be heavily placed on communication, operation/pagers, and systems changes.

Discussion

Preliminary data gathered from Pediatric RRT debriefs indicate there is room for growth to meet goals of 75% adherence to essential tasks. Rapid Response Team activations at UC Davis Children’s Hospital prior to the implementation of the Pediatric Rapid Response Team occurred at rates of 1-3 per month. The frequency of Pediatric RRTs reflects a similar rate of activations pre- and post-implementation.

Next Steps

Given QI approach to improving communication in the Pediatric Rapid Response initiative, preliminary data collected thus far will be used to propose changes at the 6-month milestone (March 2021). Subsequent project iterations, findings, and outcomes will be analyzed using run charts (also called control charts) to assess for efficacy.

References

Sharek PJ, Parast LM, Leong K, Coombs J, Earnest K, Sullivan J, Frankel LR, Roth SJ. Effect of a rapid response team on hospital-wide mortality and code rates outside the ICU in a Children's Hospital. *JAMA*. 2007 Nov 21;298(19):2267-74. doi: 10.1001/jama.298.19.2267. PMID: 18029830.

Acknowledgements

This project was supported by UC Davis School of Medicine, UC Davis Health

