Cardiac Implementation of Watchers and Unplanned ICU Transfer Review Process

BACKGROUND

- Implementation of a Watcher program to improve early recognition and response to patient deterioration outside the ICU is known to improve outcomes and reduce Emergency Transfers (ETs).
- The unique physiology of cardiac patients and differences in care models have limited generalizability of general pediatrics Watcher criteria to this population.

SMART Aim

- To demonstrate a significant decrease in ETs and codes for cardiac patients outside the CICU as evidenced by a centerline shift in FY '22.

METHODS

- Using the CHOP improvement framework, a Watcher program was implemented with cardiac-specific criteria developed through expert consensus.
- Utilizing a project dashboard, we established baseline metrics, including adapting the literature definition of ETs to the cardiac population through retrospective data review.

INTERVENTIONS

- A Cardiac Watcher order set was created:
  - Obtain Q2H patient vitals for 8 hours
  - Reduce patient: nurse ratio
  - Heighten awareness and communication
  - Re-assess watcher status Q8H
- A multidisciplinary group adapted and implemented the tiered review process in "Implementation of a Multidisciplinary Debriefing Process for Pediatric Ward Deterioration Events".

Summary of Interventions

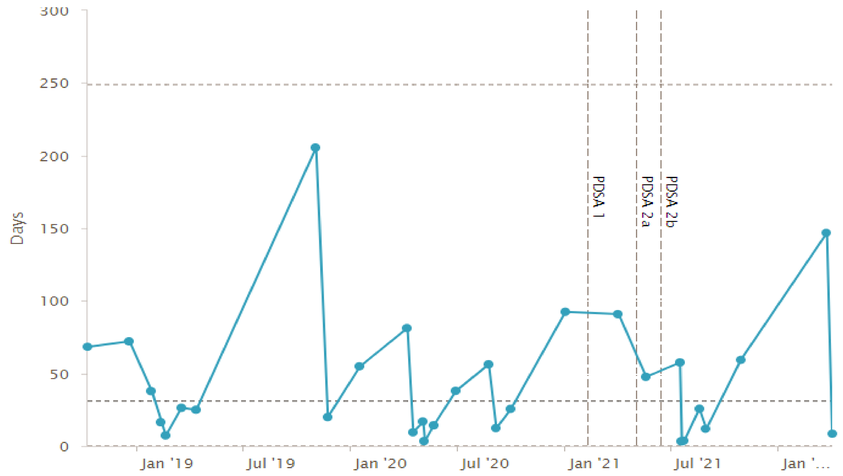
- Cardiac Watcher order set created
- Center-wide multidisciplinary tiered review process implemented

Results

- Centerline shift down not yet achieved
- 84% increase in our median Days Between ETs/Codes
- 44% of unplanned CICU Transfers were identified as requiring Tier 2 review, with 15% of those resulting in action items.
- Increase in respiratory support and clinician concern were the most common early signs of deterioration

Measurement

Days between Emergency Transfers or Codes



OUTCOMES

- We have not yet achieved a centerline shift in our Days Between ETs/Codes
- There has been an 84% increase in our median Days Between events from 26 days to 48 days
- May 2021 to February 2022 included 94 unplanned CICU transfers with 9% ET and 15% ICU bouncebacks. 37% of those transfers had a Tier 1 huddle recorded, with FLOC participation at 76%.
- Of the completed Tier 1s, 54% were identified as Watchers at the time of their escalation, and 58% of those Watchers were in a 2-patient RN assignment. Of the 46% not identified as Watchers, 24% were deemed as missed opportunities for Watcher designation
- 44% of unplanned CICU Transfers were identified as requiring Tier 2 review, with 15% of those resulting in action items
- Increase in respiratory support and clinician concern were the most common early signs of deterioration

CONCLUSIONS

- Implementation of the Watcher process alone did not result in an improvement of days between ETs or codes.
- The tiered review process has identified actionable insight, such as the need for more standardized inclusion of respiratory therapy, additional vascular access support at the time of escalation, and a clinician concern measure.
- The Cardiac Center continues to assess established systems for escalation of care to identify opportunities for appropriate implementation with the cardiac population.

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