

A Proactive Approach to Safety and Improvement at the Bedside: The Tier Zero Huddle

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Abstract

Healthcare-associated infections and conditions are safety events that are responsible for morbidity, mortality, extended length of stay, and increased costs. Children’s Hospital of Philadelphia historically reviewed harm events retrospectively, identifying potential causal factors after an event occurred. Opportunities were identified to incorporate proactive safety into the review process.

Aim

Develop and embed a process to identify at-risk patients and mitigate that risk when possible, reducing harm events.

Methodology

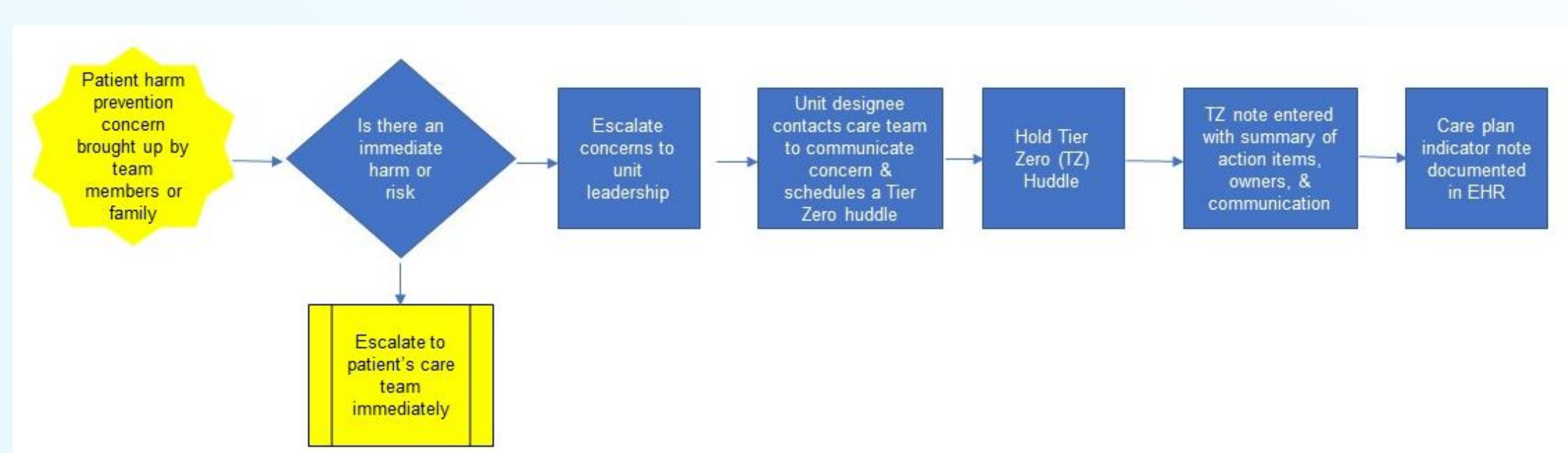
Leveraging our existing two-tiered review framework, our team designed a novel Tier Zero (TZ) process to proactively identify and mitigate risk before a harm event occurs. TZ huddle review identifies patients with risk factors and convenes a multidisciplinary team to develop an action plan to proactively prevent harm from occurring.

The team includes the bedside nurse, provider, child life, safety quality specialist, harm indicator nursing team leads, and the patient or parent if available. Team members or families identify a concern to trigger a TZ huddle. Using Plan-Do-Study-Act methodology, TZs were piloted in a care area, refined, and spread across the organization.



A toolkit with a process flow, guiding principles, and a list of key stakeholders was developed and disseminated. At the huddle, potential failure modes are analyzed, interventions identified, and an action plan developed.

Tier Zero Process Flow



A note template was developed in the Electronic Medical Record to prompt conversation around risk factors and action planning. The note is entered at the time of the huddle. An automated report was created to aid teams in evaluating TZ completion and the impact on harm prevention.

Results

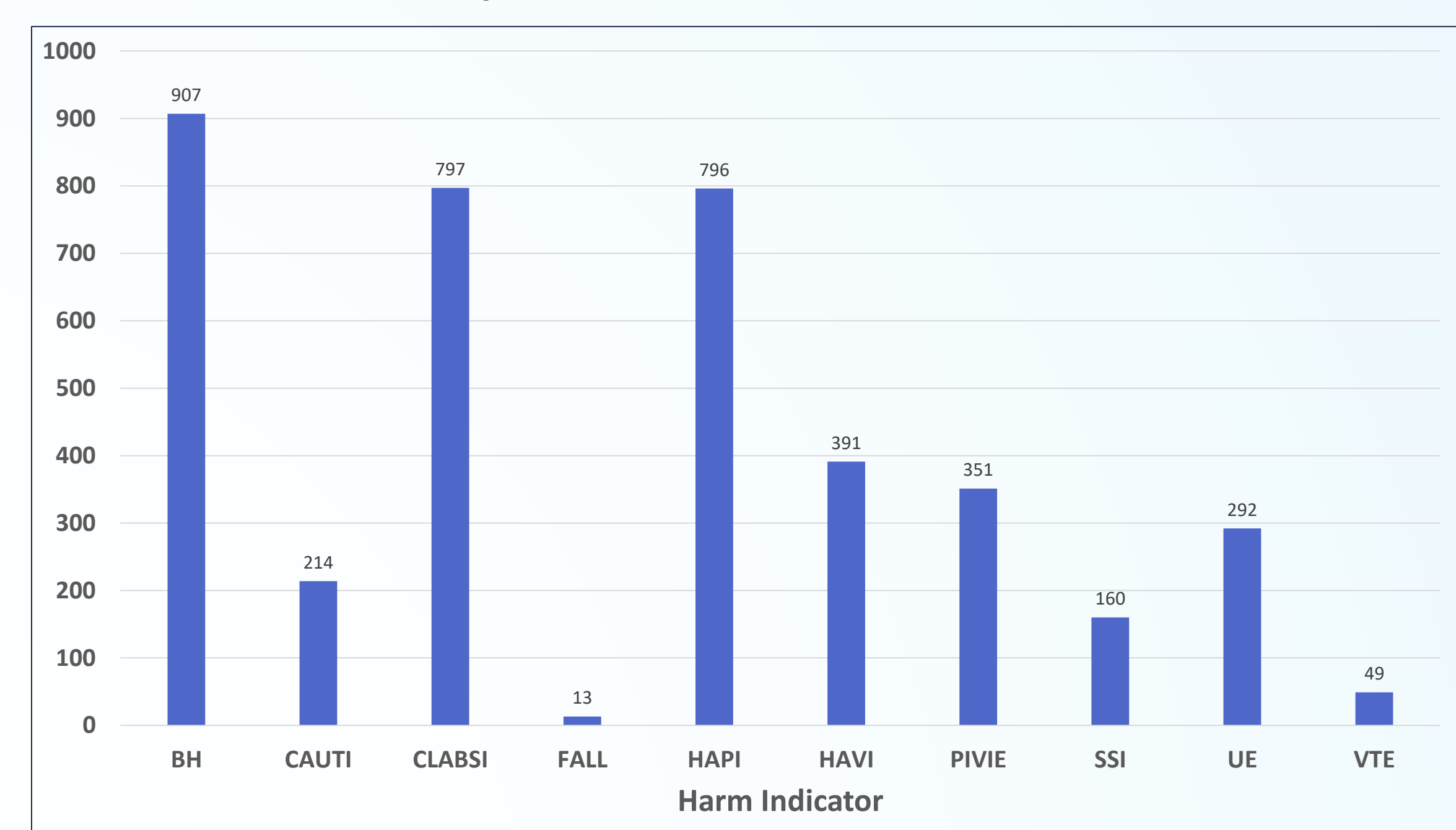
TZs were adopted across the enterprise over a 3 fiscal years (FY). Over 400% increase in TZ huddles from FY22 to FY24 across harm indicators.

- FY 2022 343 TZs completed
- FY 2023 1047 TZs completed
- FY 2024 1632 TZs completed

A sample of longitudinal outcomes from one medical unit and one intensive care unit were evaluated for six months.

- 164 TZs were completed on 43 unique patients
- Only six patients went on to develop a reportable event of harm

Completed Tier Zeros since 2022*



Harm Indicators: BH –Behavioral health risk; CAUTI – Catheter associated urinary Tract Infection; CLABSI – Central line associated blood stream infection; FALL – fall event; HAPI – Hospital acquired pressure injury; HAVI – Healthcare associated viral infection; PIVIE – Peripheral IV infiltration extravasation; SSI – Surgical site infection; UE – Unplanned extubation; VTE – Venous thromboembolism
*Data does not include TZ completed without an indicator selected

Implications for Nursing Practice

TZs allow for proactive assessment and discussion of harm risk. The tool promotes dialogue among multidisciplinary teams, patients, and families, with an end goal of deploying action items to mitigate risk. This proactive, patient-centric strategy directly supports nursing practice; through its incorporation of structured discussion, patient care is reviewed holistically, and strategies are implemented to support nursing care at the bedside.

By identifying at-risk patients in advance, creative strategies are generated, and harm can be prevented. The Tier Zero process has empowered and engaged teams while keeping patients safe!

References

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