

# A Restraint Alternative Program on the Neurotrauma Intermediate Care Unit

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## Problem Statement

- Restraint use is associated with **physical, cognitive, and psychological harm**
- Restraint reduction is supported by several organizations, including the Joint Commission, Centers for Medicare and Medicaid Service, and the American Nurses Association to **improve patient safety**
- On a Neurotrauma Intermediate Care (IMC), **restraint prevalence** is above the National Database for Nursing Quality Indicators (NDNQI) mean

## Purpose of Project & Goals

- **Purpose:** To reduce restraint prevalence by implementing a restraint alternative program consisting of the Restraint Decision Wheel, improvements in restraint alternative supply, and charge nurse restraint rounding
- **Short-term goal:**
  - Use of restraint decision wheel by 100% of nurses once per shift
  - 100% of charge nurses rounding on restrained patients once a shift
- **Long-term goal:** Reduce restraint prevalence on Neurotrauma IMC

## Methods

**Setting:** Neurotrauma IMC in an urban academic medical center

**Population:** Adult patients, bedside nurses, and charge nurses

**Interventions:**

- Nursing staff education in application of restraint alternatives and the Restraint Decision Wheel
- **Implementation of Restraint Decision Wheel tool**, which assesses patients on 3 levels to determine restraint alternative appropriateness
- **Restraint alternative supplies** provided in carts on the unit
- **Charge nurses rounding** on restrained patients at least once per shift to encourage restraint alternatives. Project champions met twice monthly to strategize enhancements to project implementation

**Data Collection and Analysis**

- 5 weeks pre-implementation and 12 weeks during implementation
- Self-report surveys measured restraint decision wheel use and unintentional device removal. Completion of rounding forms measured charge nurse rounding. Electronic health record audit measured restraint prevalence.
- Data were analyzed using run charts

## Discussion

Implementation of the restraint alternative program was associated with:

- a significant decrease in restraint prevalence
- a reported improvement in patient safety culture from nursing staff
- Restraint Decision Wheel use incorporated into practice more frequently than charge nurse rounding
- no significant safety events from unintentional device removal

**Limitations:**

- Reliance on survey data for Restraint Decision Wheel utilization may have underestimated its use due to low survey compliance
- The neurotrauma patient population is particularly susceptible to agitation and delirium which may make it more difficult to limit restraint use
- COVID-19 Pandemic

"I was able to keep my patient restraint-free this shift. She had simple confusion and was calm and occupied with her new reading glasses and coloring books."

## Conclusions

- **In our setting, implementation of a restraint alternative program is a low-cost, safe, and effective intervention for reducing restraint prevalence**
- Consider implementation of restraint alternative training, restraint decision-making tool, and restraint rounding in a step-wise method to optimize uptake of restraint alternative program
- Engage multidisciplinary team in discussions of restraint alternatives
- Consider restraint alternatives supplies in unit budget planning

## References

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## Acknowledgements

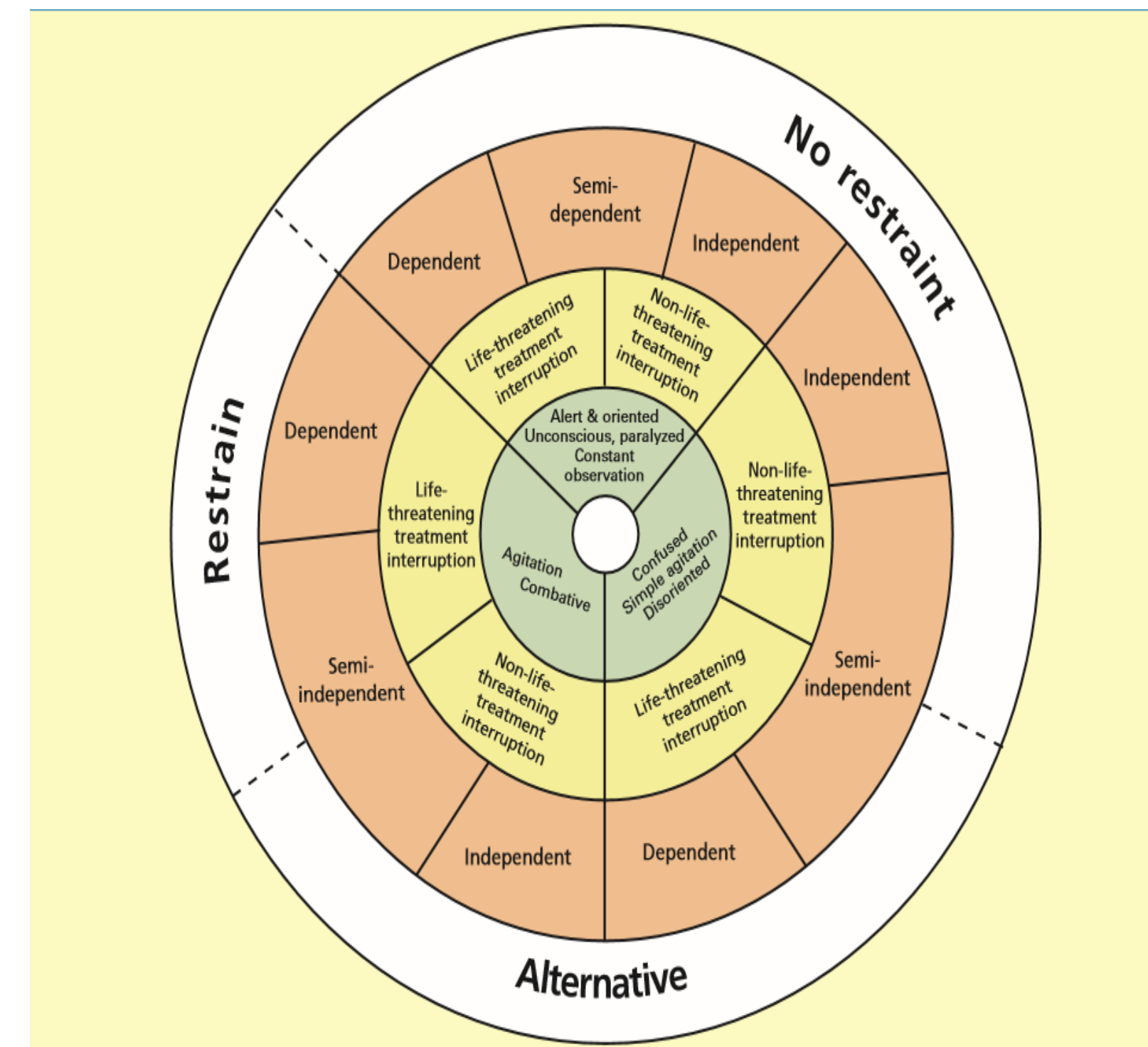
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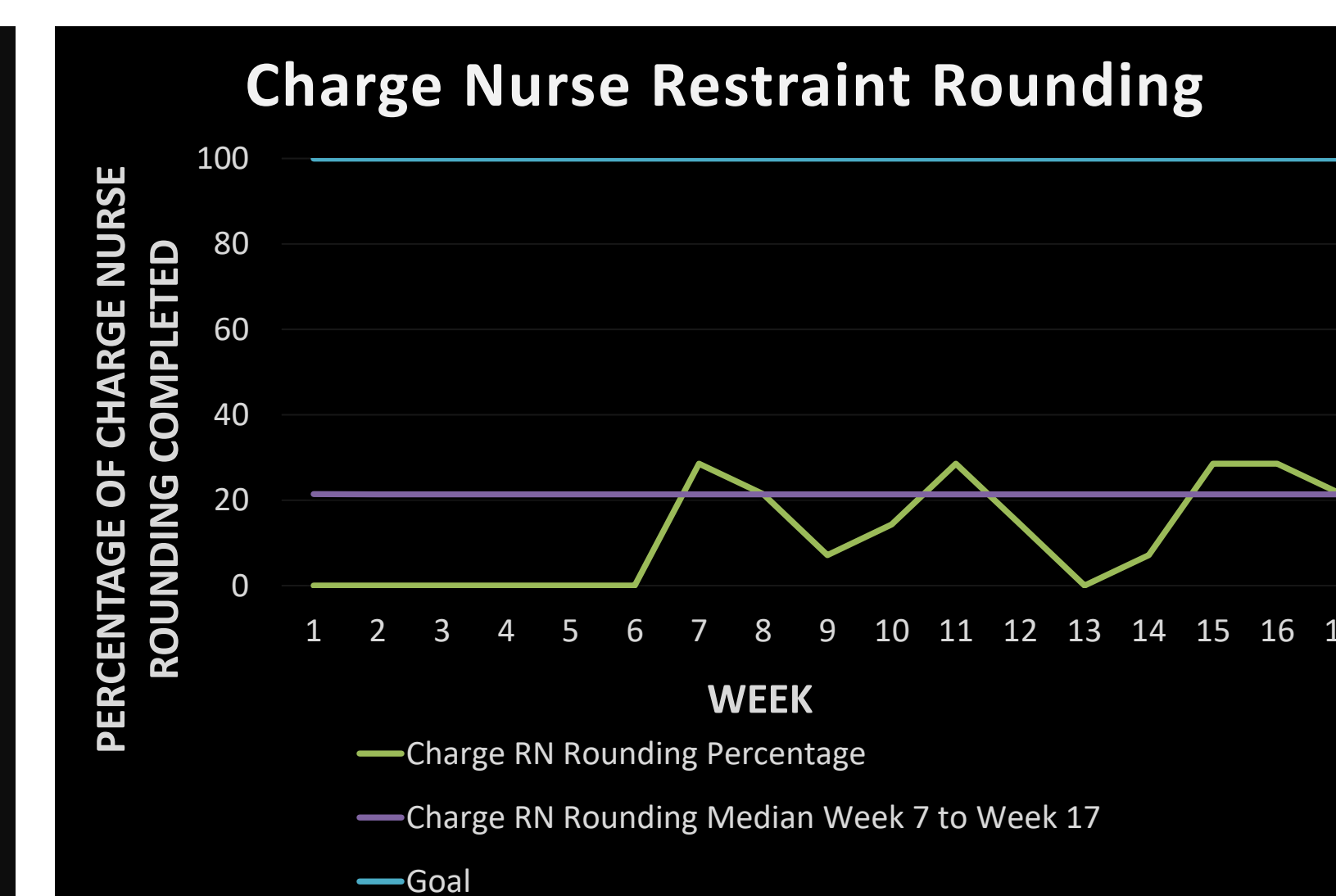
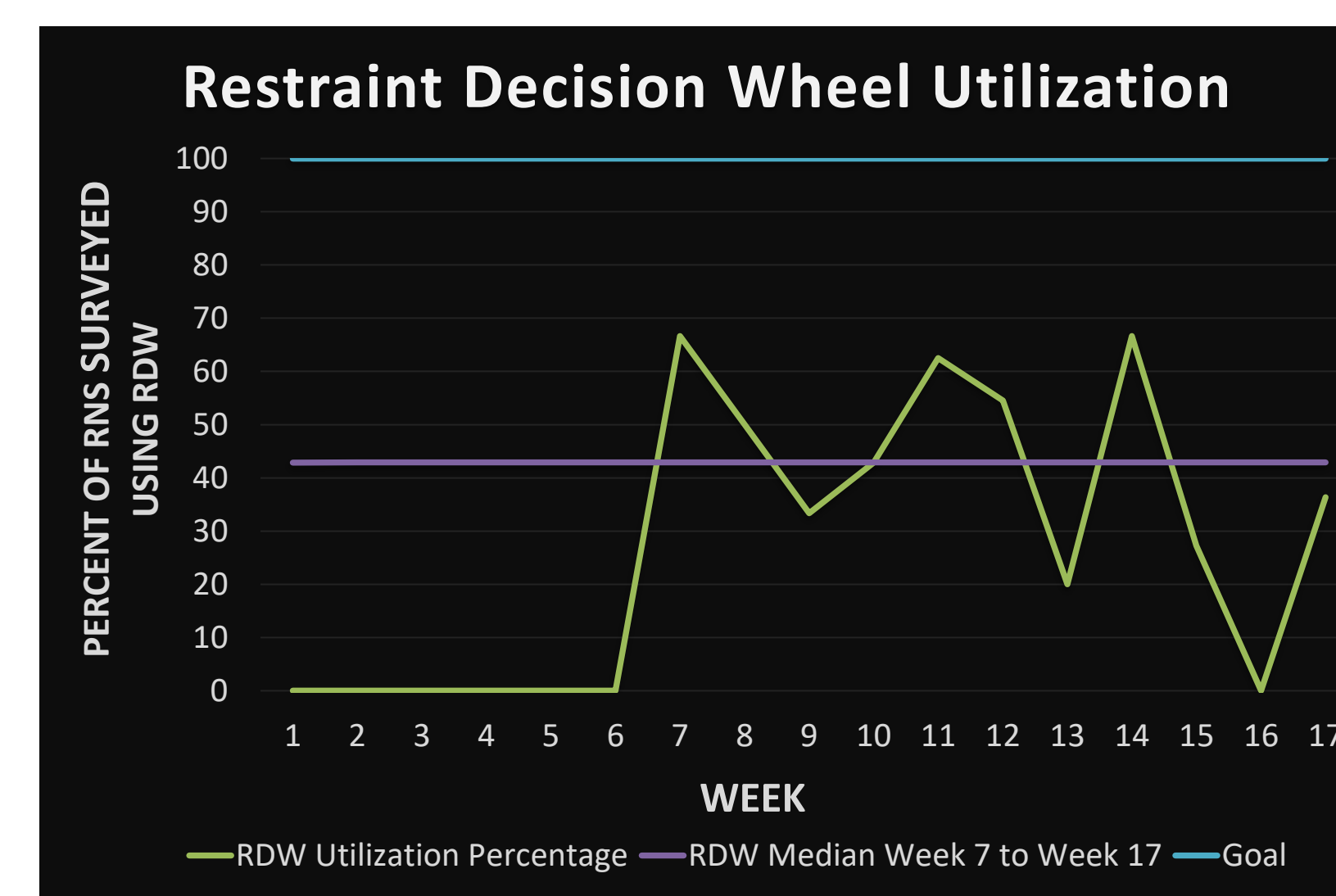
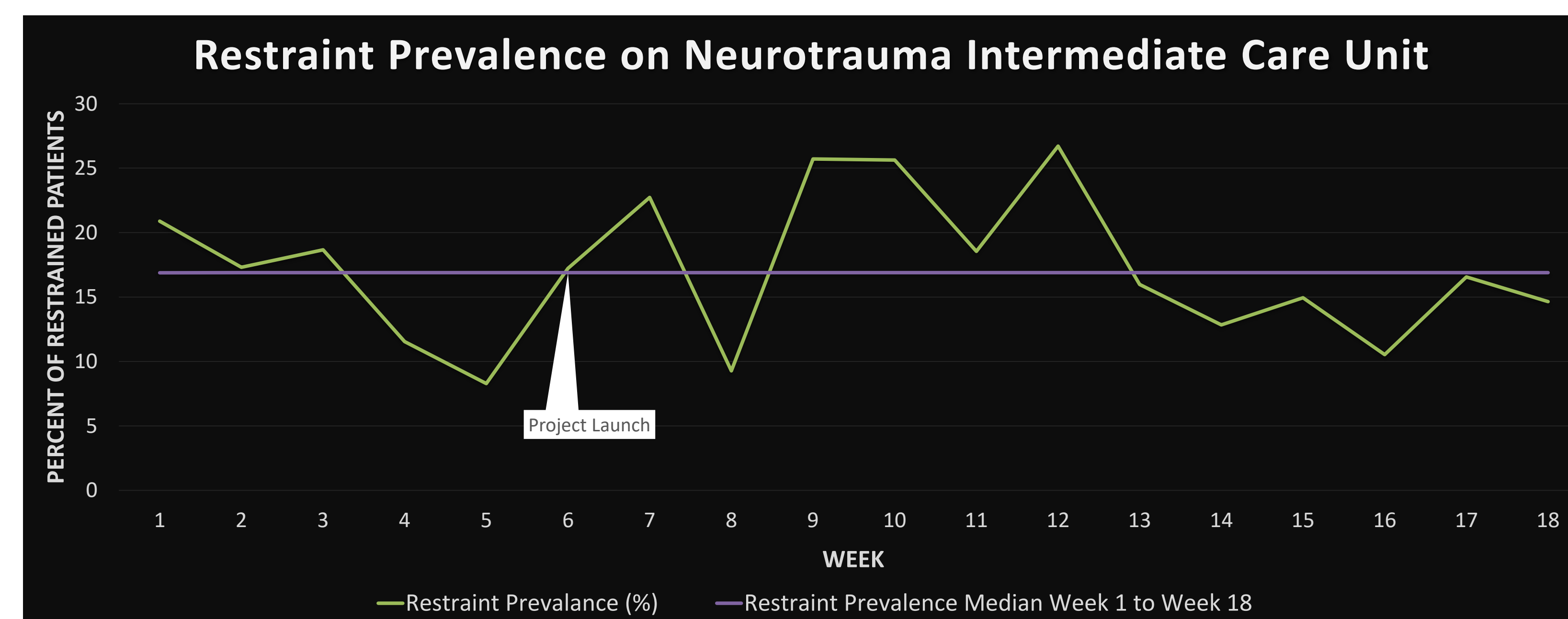


Restraint Decision Wheel



Restraint Alternative Supply Cart

## Results



- **Restraint prevalence** was variable throughout the early weeks of the project, but a non-random pattern was demonstrated by project completion, with a shift of **6 consecutive points below the median**
- **Median Restraint Decision Wheel Utilization was 43%**
- Charge nurses rounded a **median 21%** of shifts per week
- **10 unintentional device removal occurrences** were reported during the project