

USING FAILURE MODES EFFECTS ANALYSIS TO PREVENT HEALTHCARE-ACQUIRED PRESSURE INJURIES

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DESCRIPTION

Healthcare-Acquired Pressure Injuries (HAPIs) place a significant burden on both patients and the healthcare system, as they contribute to pain, increased infection risk, prolonged hospital stays, and higher healthcare costs. At Humber River Health (HRH), reducing HAPIs is a key priority for patient safety and quality care, aiming to improve patient outcomes, enhance comfort and prevent complications. The Quality and Patient Safety (QPS) team collaborated with Clinical Practice Leaders (CPLs) to conduct a failure modes effects analysis (FMEA) to identify potential failure modes within current processes and develop targeted quality improvement strategies to prevent HAPI related incidents.

OBJECTIVE

To apply FMEA to identify and address process gaps contributing to healthcare-acquired pressure injuries at HRH.

ACTIONS TAKEN

For Fiscal Year 2023/2024, incident reports for HAPIs were reviewed and analyzed. Using the FMEA approach, stakeholders collaborated to identify gaps in current processes and developed strategies to optimize processes to reduce HAPI related incidents.

The following actions were taken:

- Collaborated with key stakeholders to create process maps, identify gaps in processes, and potential failure modes
- Prioritized identified failure modes for further analysis and plan mitigation strategies
- Developed action plans to optimize processes and to implement the mitigation strategies

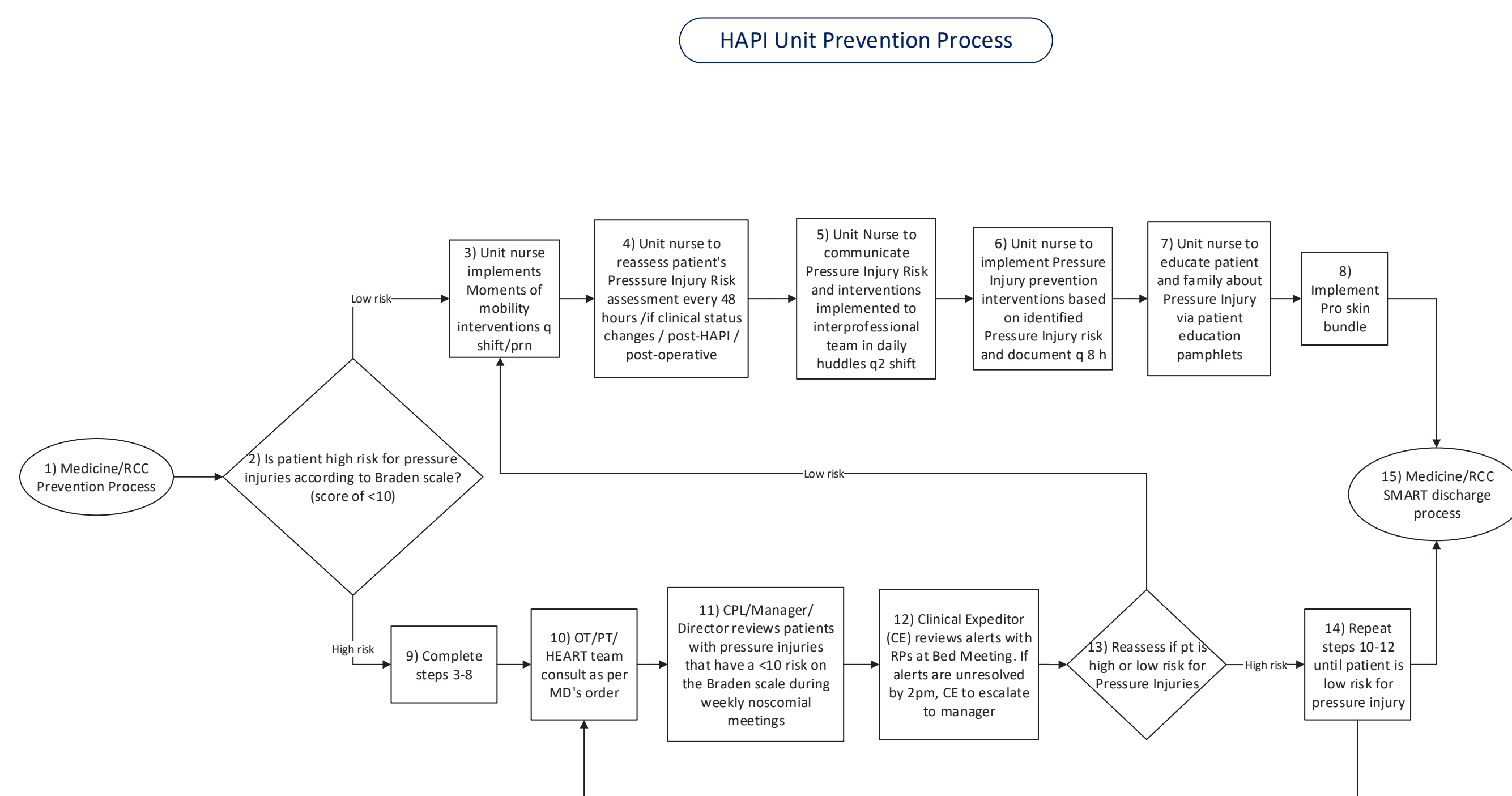


Figure 1. One of the several process maps created that outlines the steps of the Healthcare-Acquired Pressure Injury Prevention Process. By breaking down the steps, gaps in the process were identified, causing the development of actions to resolve these issues.

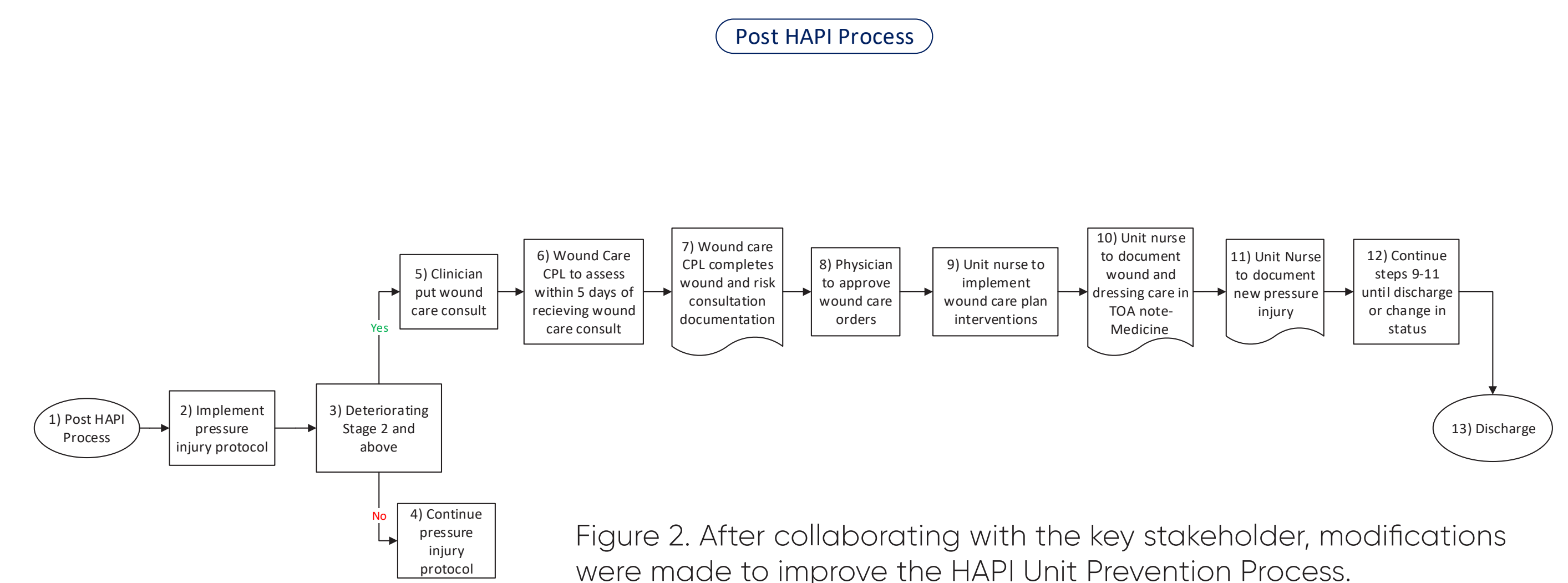


Figure 2. After collaborating with the key stakeholder, modifications were made to improve the HAPI Unit Prevention Process.

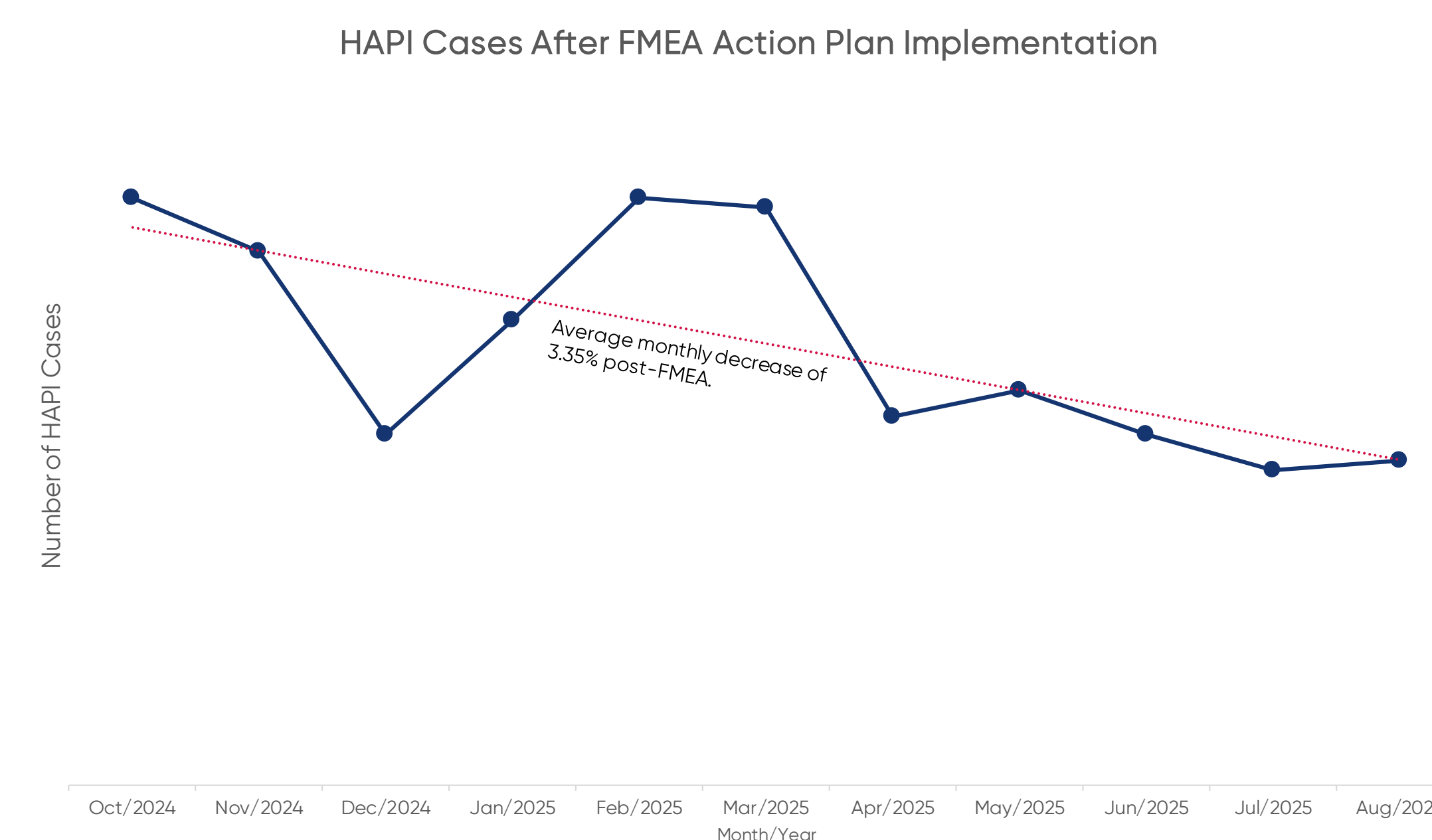


Figure 3. HAPI cases have seen an average decrease of 3.35% on a monthly basis after FMEA action plan implementation, showcasing its effectiveness.

SUMMARY OF RESULTS

From the FMEA process maps, stakeholders developed an action plan to address gaps in HAPI prevention process which included:

- Ensuring appropriate mattresses are available in the correct units
- Implementing regular repositioning audits
- Providing in-person staff education on proper application of heel boots
- Updating pressure injury protocols in Meditech
- Unit specific knowledge sharing on how to change plan of care

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LESSONS LEARNED

The collaborative effort on this initiative demonstrated how FMEA can promote shared responsibility in improving patient safety and reducing future HAPI occurrences.

