

INTRODUCTION

Background

Hazardous drug spills including chemotherapy pose a safety risk to both patients and staff who are administering the medications. Despite having policy and personal protective equipment (PPE) including designated spill kits, inconsistent familiarity with spill protocols can result in delayed staff response, inadequate cleanup, as well as increased exposure to both patients and staff.

Purpose

The purpose of this quality improvement project is to enhance nurses' knowledge and preparedness in managing chemotherapy spills by providing hands-on education. This will ensure safe, and appropriate response that align with institutional safety protocols and protect patients and staff.

Framework:

- Quality Improvement utilizing the Plan-Do-Study-Act (PDSA)

Objectives of Poster:

1. The learner will be able to identify key components on an effective chemotherapy spill drill.
2. The learner will demonstrate knowledge of proper spill response procedures.

METHODS

Setting and Participants:

Spill drill education began at Mt. Holly's Medical-Surgical oncology unit in July 2025, as well as Voorhees Medical-Surgical oncology floor and Infusion Center August 2025. The education will be ongoing until all current nursing staff have received the education. Thereafter, chemotherapy spill education will be provided upon completion of chemotherapy certification.

Intervention/Process:

Education is delivered through in-person, scenario-based spill drills conducted on the unit during regular shifts. The drill includes identification of a spill, donning PPE, use of the chemotherapy spill kit, containment and clean up, and proper disposal and documentation procedures. Participants are asked to record their name and employee ID on a sign in sheet to keep track of who received the education.

Data Collection and Analysis:

- A pre-survey was sent to nursing staff and posted on the unit via QR code to gauge present confidence responding to a chemotherapy spill. Questions were designed using the Likert Scale, as well as ranking. A total of 25 nurses completed the survey.
- A post-survey with the same questions as the pre-survey was provided to nurses who completed hands on education. Due to challenges faced at the start of implementing the drills, only 6 nurses were reached for education.

RESULTS

Key Findings:

- 25 nurses completed the pre-survey (Table 1)
- Overall, the majority selected "Not Confident" to responding to a chemotherapy spill
- 6 Nurses completed the post-survey (Table 2)
- After hands on education with the spill kit survey responses ranged from moderately confident to extremely confident

Table 1. Nurse confidence in ability to respond appropriately to a chemotherapy spill.

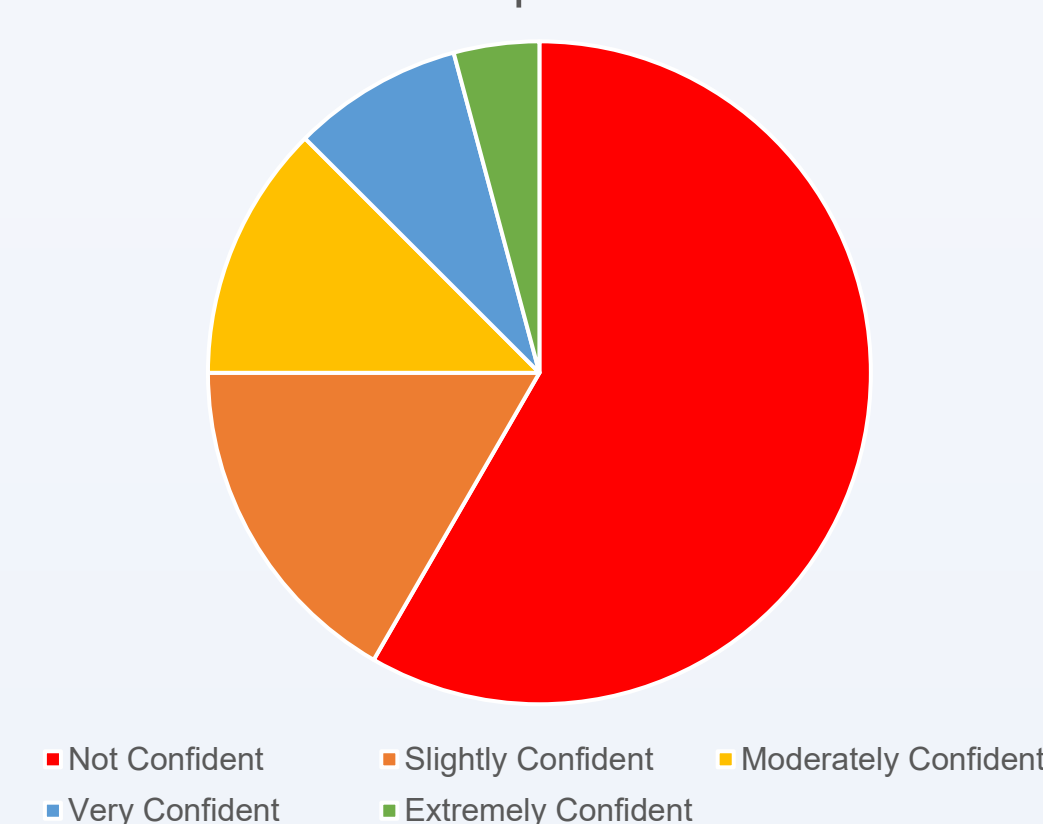
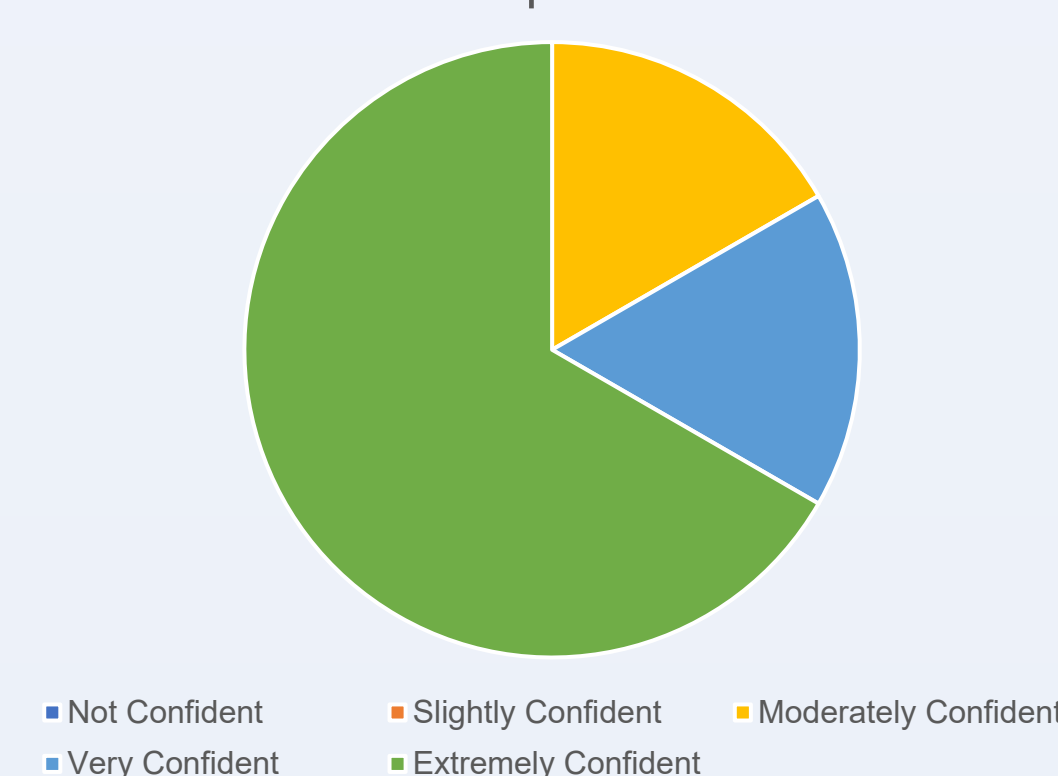


Table 2. Nurse confidence in ability to respond appropriately to a chemotherapy spill.



CONCLUSIONS

Interpretation:

Preliminary data shows an increase in nurse confidence responding to a chemotherapy spill; however, data is limited due to challenges that have slowed the roll out of the project.

Relevance:

Chemotherapy spill drills can strengthen nursing practice through education, supports a culture of safety, and ultimately helps to protect both staff and patients from the risks associated with a chemotherapy drug exposure.

Limitations and Future Directions:

Several limitations were identified during the start of implementing chemotherapy spill drills. One major challenge was the discovery of outdated policy items related to the spill kit, due to new spill kits being distributed. Another challenge related to the instructions for use on the chemotherapy spill kit, contributing to confusion of what tasks are to be completed by nursing versus Environment Services. Active communication has been ongoing between departments to rectify the identified barriers.

REFERENCES

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