

# Implementation of the ONS Hazardous Drugs Safe Handling Toolkit in the Outpatient Infusion Unit

**Karine Austin, DNP, RN, NEA-BC, CENP**

One Healthy Way, Oceanside, New York 11520 \* 516-632-3482 \* [Karine.Austin@snch.org](mailto:Karine.Austin@snch.org)

## Clinical Problem

- Oncology nurses rank among the highest in occupational exposure to adverse events (9%) because of the lack of government standardized guidelines on the handling and safety of anti-neoplastic chemicals as well as a lack of government regulation on exposure limits to antineoplastic and substances used for chemotherapy (Borges, Silvino, Dos Santos, & Galvao, 2015).
- Outpatient infusion nurses do not consistently follow recommended guidelines on safe handling of hazardous drugs; therefore, they have put themselves at a greater risk of exposure that can lead to short- and long-term adverse outcomes.

## Purpose

The purpose of the project is to reduce long term environmental exposure, increase awareness, enhance safe handling practices of oncology nurses in the outpatient setting by implementing the ONS Hazardous Drugs Safe Handling Toolkit over a ten-week period to meet the ONS Chemotherapy Administration Safety Standards, OSHA safe handling recommendations and current evidenced-based hospital policies.

## Aim

- Increase staff awareness of hazardous drugs
- Enhance safe handling practices
- Practice according to recommended safety guidelines
  - OSHA, NIOSH, ONS
- Reduce environmental and occupational exposure

## PICOT

For oncology nurses in the outpatient infusion unit, does implementation of the ONS safe handling of hazardous drugs toolkit, compared to the standard practice reduce the incidence of environmental contamination within ten weeks?

## Theory

- Health Belief Model
  - Developed in the 1950s
  - Explores the failure of people
  - Preventive services/lifestyle behaviors
  - Reducing risk factors in healthcare
  - Prevention-related interventions

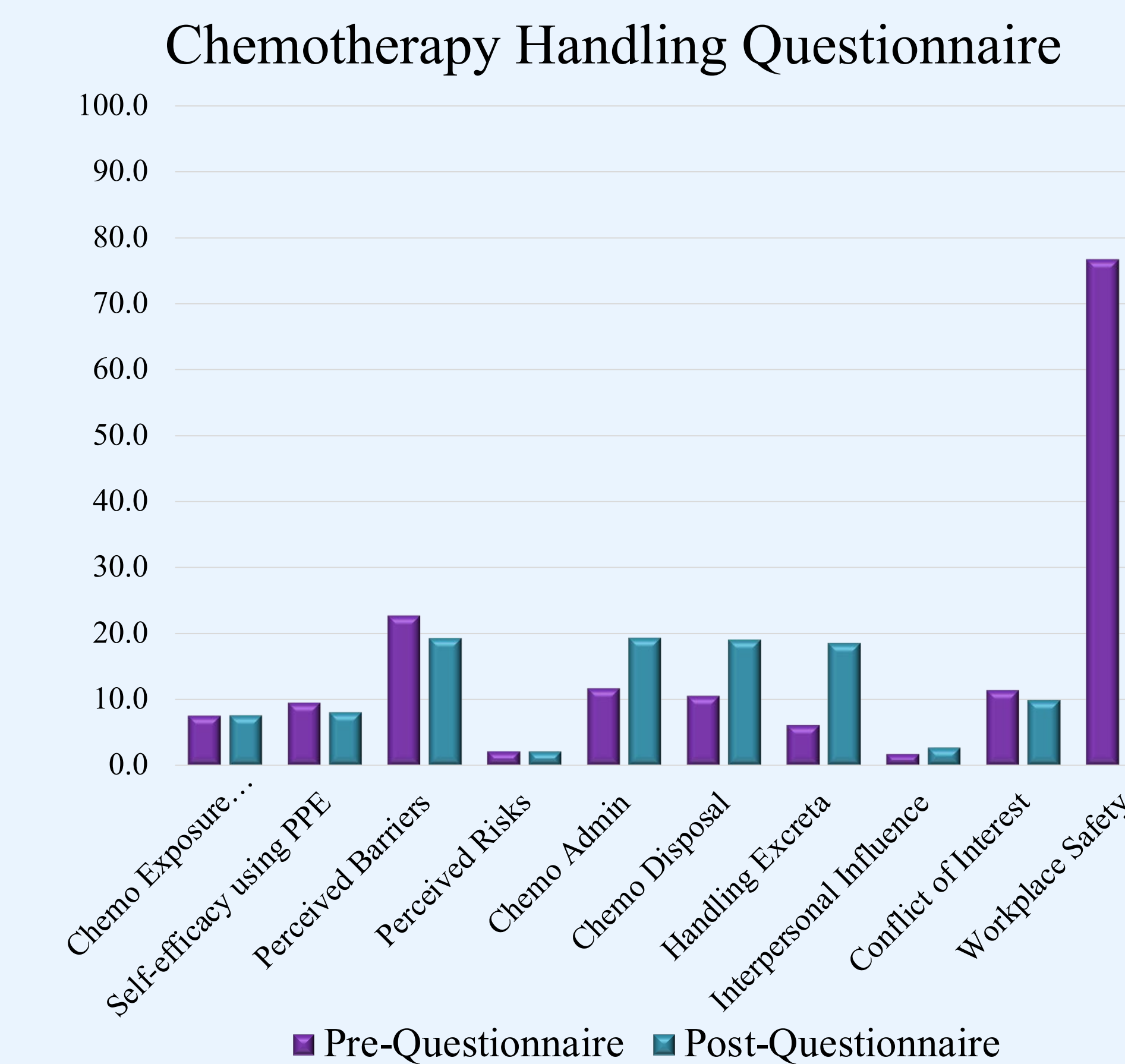
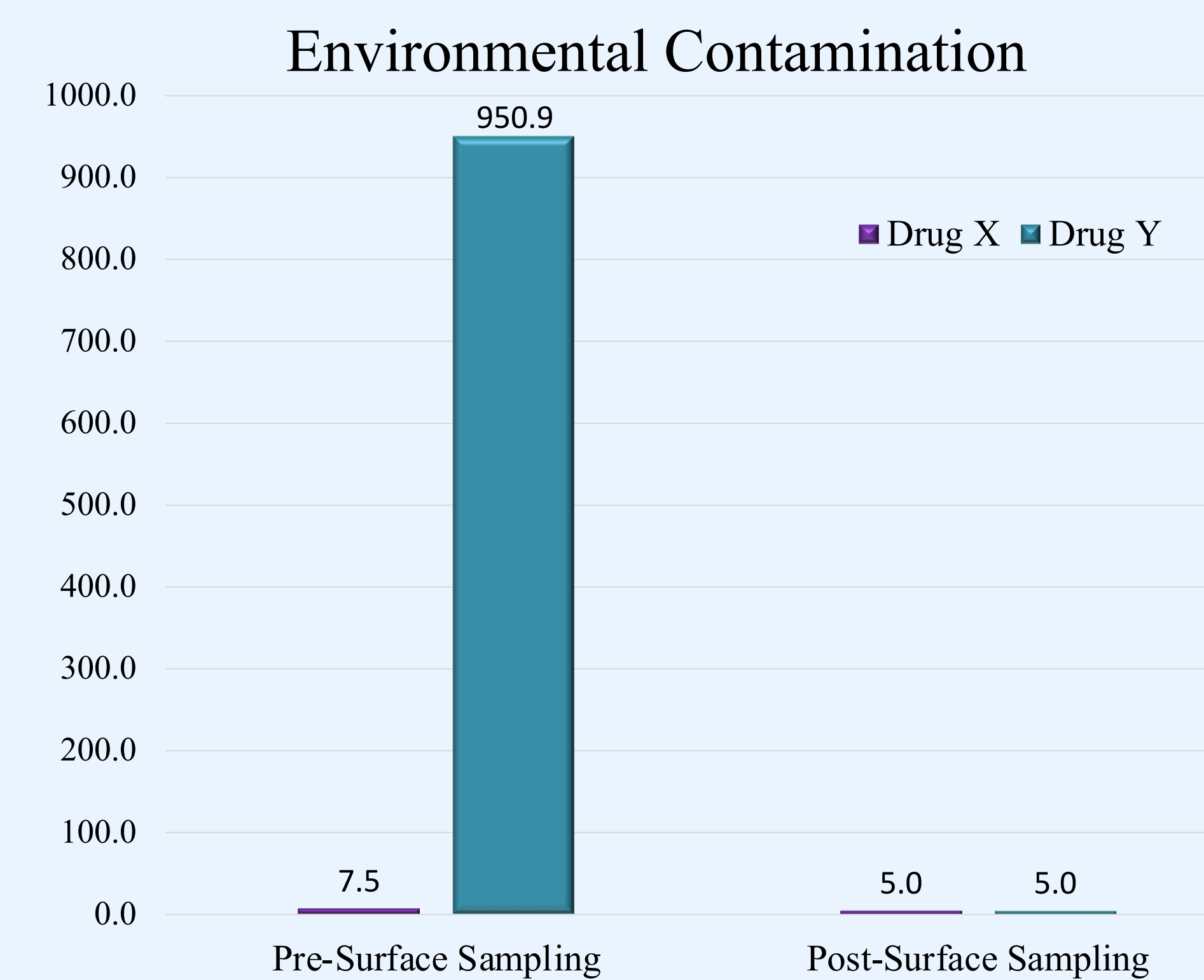
## Intervention

- Introduction of an evidence-based ONS toolkit
- Training for all nurses in safe handling requirements, standards, and behaviors; preventing and responding to environmental contamination and personal exposure to HD
- Educating nurses on the importance of medication handling safety and the possible risks of unsafe handling practices (Oncology Nursing Society, 2019)
- Obtaining the necessary safety equipment and protective garments to facilitate safe handling, medication handling
- Developing administrative guidelines and standards.

## Implementation

- Chemotherapy handling questionnaire
- CHEMOALERT™ surface sampling testing
- Standardization of personal protective equipment
- Utilization of a Closed System Transfer Device
- Hazardous drugs decontamination agent

## Findings



## Sustainability

- Clinical leadership oversight
  - Associate Clinical Oncology Director
  - Oncology Nurse Educator
- New hire onboard training
- Annual competency
- Availability of equipment
- Evidence-based policies and procedures

## Significance to Nursing Practice

- PPE has been determined as best practice and should include, chemotherapy designated gowns, and double gloving of chemotherapy tested gloves and respirator mask when appropriate.
- Peer to Peer and/or nursing education on PPE usage (focus on double gloving, gown use and respirator masks).
- Investigate the availability of resources – specifically PPE in the outpatient setting.
- The need to review PPE compliance and appropriate cleaning in the outpatient department, especially considering the initiation of USP <800> mandates.
- Investigate the availability of resources – specifically PPE in the outpatient setting.
- Development of strategies to ensure compliance of USP <800>.

## References

- Department of Health and Human Services. (2019). Social and behavioral theories. Retrieved from <https://obssr.od.nih.gov/wp-content/uploads/2016/05/Social-and-Behavioral-Theories.pdf>
- Hickman, R., & Finnell, D. S. (2017). Chemotherapy safe handling. *Clinical Journal of Oncology Nursing*, 21(1), 73–78.
- ONS Voice. (2019). ONS safe handling guidelines are consistent with national recommendations. ONSVoice.com. Retrieved from <https://voice.ons.org/news-and-views/ons-safe-handling-guidelines-are-consistent-with-national-recommendations>
- Polovich, M. (2010). Nurses' use of hazardous drug safe handling precautions, Dissertation, Georgia State University. Retrieved from [http://scholarworks.gsu.edu/nursing\\_diss/21](http://scholarworks.gsu.edu/nursing_diss/21)