A Closed-System Transfer Device for Compounding Hazardous Drugs: A Cost Analysis and Satisfaction Study

Jennifer Bulin, PharmD; Rebecca Miehlke, CPhT; Jean Meyer, CPhT; Kurstin Peplinski, BS, CPhT, CSPT; Emma Huepfel, PharmD, MBA, MS

BACKGROUND

• Exposure to hazardous drugs in the workplace is known to be dangerous for healthcare workers.
• Closed-system transfer devices (CSTDs) are used to prevent employee exposure to hazardous drugs.
• CSTDs have gained popularity since the release of USP Chapter 800.
• USP 800 requires the use of CSTDs while administering antineoplastic hazardous drugs, however it allows the use of CSTDs or standard safe handling techniques alone during compounding.
• After the initial release of USP 800, our health system began the process of using CSTDs for the compounding and administration of hazardous drugs.

OBJECTIVE

• The primary objective of this study is to analyze the cost and employee satisfaction related to using a closed-system transfer device for the compounding of hazardous drugs.

METHODS

• Literature search for CSTD background and requirements, and to identify other institutions who have conducted similar reviews.
• Likert-scale survey will be sent to all compounding technicians in our health system to obtain feedback on their experiences with the CSTD.
• Surface contamination testing to help determine the effectiveness of preventing hazardous drug exposure with our current CSTD.
• Time Study to determine the CSTD’s effect on compounding efficiency
• Calculation of drug waste associated with engineering limitations of the CSTD
• Calculation of estimated CSTD cost per prescription compounded

PRELIMINARY RESULTS

Number of Pharmacy Surfaces Contaminated With Common Hazardous Drugs

NEXT STEPS


REFERENCES