



TITLE: Cleansers or Disinfectants for Cleaning Chemotherapeutic Agent Residue: Clinical Effectiveness and Guidelines

DATE: 23 July 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of cleansers or disinfectants for cleaning treatment or preparation areas where chemotherapeutic agents are used?
2. What are the evidence-based guidelines associated with the use of cleansers or disinfecting agents for cleaning treatment or preparation areas where chemotherapeutic agents are used?

KEY FINDINGS

One evidence-based guideline was identified regarding the use of cleansers or disinfecting agents for cleaning treatment or preparations areas where chemotherapeutic agents are used.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit retrieval by publication type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2010 and July 10, 2015. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Population	Patients and staff potentially exposed to chemotherapeutic agents or residue in treatment or preparation areas
Intervention	Any cleanser or disinfectant used to clean and remove chemotherapeutic agents or residue (e.g., bleach, soap and water with appropriate friction, Ultra Quot, accelerated hydrogen peroxide)
Comparator	No comparator; Any cleaning or disinfecting agent
Outcomes	Q1: Clinical effectiveness of cleansers or disinfectants (ability to remove chemotherapeutic agents; safety, including, but not limited to, unnecessary exposure to chemotherapeutic agents) Q2: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

One evidence-based guideline was identified regarding the use of cleansers or disinfecting agents for cleaning treatment or preparation areas where chemotherapeutic agents are used. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One evidence-based guideline¹ was identified regarding the use of cleansers or disinfecting agents for cleaning treatment or preparation areas where chemotherapeutic agents are used. In handling spills, an external reviewer recommends a two-step process: clean with 0.05 M sodium hydroxide solution, followed by 98% isopropyl alcohol.¹ With regard to the cleaning of drug containers, pre-moistened toiles or a disposable cloth dampened with a solution of detergent and water is recommended.¹

REFERENCES SUMMARIZED

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Guidelines and Recommendations

1. Easty A, Coakley N, Cheng R, Cividino M, Savage P, Tozer R, et al. Safe handling of cytotoxics [Internet]. Toronto (ON): Cancer Care Ontario; 2013 Dec 16. 75 p. No. 16-3. [cited 2015 Jul 21]. (Evidence-based series). Available from: <https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=>

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APPENDIX – FURTHER INFORMATION:

Non-Randomizes Studies

No Patient Reported Outcomes

2. Anastasi M, Rudaz S, Queruau LT, Odou P, Bonnabry P, Fleury-Souverain S. Efficacy of two cleaning solutions for the decontamination of 10 antineoplastic agents in the biosafety cabinets of a hospital pharmacy. *Ann Occup Hyg*. 2015 May 15.
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Lab Studies, No Patient Reported Outcomes

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[PubMed: PM22526087](#)
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[PubMed: PM23223271](#)

Clinical Practice Guidelines – Uncertain Methodology

9. Great Ormond Street Hospital for Children [Internet]. London: NHS. Cytotoxic and cytostatic medication - safe handling and administration; 2015 Jul 2 [cited 2015 Jul 21]. Available from: <http://www.gosh.nhs.uk/health-professionals/clinical-guidelines/cytotoxic-and-cytostatic-medication-safe-handling-and-administration>
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11. Safe handling of hazardous chemotherapy drugs in limited-resource settings [Internet]. Washington (DC): Pan American Health Organization; 2013. [cited 2015 Jul 21]. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=24983&Itemid=&lang=en
12. Couch J, West C. Chemotherapy drugs exposures at an oncology clinic - Florida [Internet]. CDC Workplace Safety and Health; 2013. HETA 2009-0448-3158. [cited 2015 Jul 21]. (Health Hazard Evaluation Report). Available from: www.cdc.gov/niosh/hhe/reports/pdfs/2009-0148-3158.pdf
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Additional References

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