PREvail® DISINFECTANTS

USP <800> Hazardous Drugs: Handling in Healthcare Settings (December 2019)

ABSTRACT

Accelerated Hydrogen Peroxide® (AHP®) is a Health Canada and EPA registered disinfectant which continues to gain popularity as one of the most effective and safest disinfectant chemistries in the market. AHP® is highlighted in the United States Pharmacopeia (USP) as the product with a perfect balance between efficacy, safety and compatibility, revealing the technologies potential within compound pharmacy. In the 2019 revision of <800> Hazardous Drugs - Handling in Healthcare Settings, hydrogen peroxide was frequently mentioned as an effective chemistry for the deactivation and decontamination of hazardous drugs (HDs), which reinforces AHP® as an accepted disinfectant in the Pharmaceutical Industry.

BACKGROUND

The United States Pharmacopeia (USP) is the official public standards-setting authority for all prescriptions and over-the-counter medicines, dietary supplements, and other healthcare products manufactured and sold in the Unites States. However, many other countries (including Canada) require the use of high-quality standards such as USP's to assure the quality of medicines and related products. Therefore, the USP disseminates standards to pharmaceutical manufacturers, pharmacists, and other users worldwide through its various publications.

This document deals with the practice and quality standards for handling hazardous drugs to promote patient, workers and environmental safety including a focus on deactivation, decontamination, cleaning and disinfection of hazardous drugs.

DEACTIVATION, DECONTAMINATION, CLEANING AND DISINFECTION

All areas where HDs are handled, reusable equipment and devices must be routinely deactivated, decontaminated, and cleaned. Additionally, sterile compounding areas and devices must be subsequently disinfected. The deactivating, decontaminating, cleaning and disinfecting agents selected must be appropriate for the type of HD contaminant(s), location, and surface materials. The products used must not contaminate the surfaces with substances that are toxic, volatile, corrosive, or otherwise harmful to the surface material. Chemical deactivation of HD residue is preferred, but no single process has been found to deactivate all currently available HDs. However, studies have examined oxidizing agents, including hydrogen peroxide and found them to be effective in degrading and deactivating HDs. A secondary study which looked at the effect that pH had on degradation of HDs found that low (acidic) pH (such as AHP®) was very effective.

Listed in the chart below are the USP recommended agents for the deactivation, decontamination and disinfection of HDs.

Table 1: Summary of Cleaning Steps

Cleaning Step	Purpose	Agents
Deactivation	Render compound inert or inactive	As listed in the HD labeling or if no specific information available, sodium hypochlorite or other EPA registered oxidizer (e.g. peroxide formulations)
Decontamination	Remove inactivated residue	Sterile alcohol, peroxide or sodium hypochlorite
Cleaning	Remove organic and inorganic material	Germicidal detergent and sterile water
Disinfection	Destroy Microorganism	Sterile alcohol or other EPA-registered disinfectant appropriate for use

CONCLUSION

The USPs guidelines for choosing a disinfectant technology that has the ability to deactivate HDs emphasizes the importance of a well-rounded product. Based on studies that have demonstrated the ability of oxidizers such as hydrogen peroxide, and products with a low pH to deactivate HDs combined with the known ability of AHP® to have superior cleaning properties and germicidal efficacy, AHP® would be an excellent choice for the use in healthcare settings that deal with the preparation and use of HDs. As demonstrated, AHP® provides the perfect balance between microbicidal effectiveness and safety. Most disinfectant technologies are inherently toxic, however, AHP®'s unique synergy provides superior broad spectrum performance, without sacrificing the user's health.

IMPLICATIONS FOR AHP

AHP®'s unique synergy makes is an ideal product to be used for the deactivation, decontamination, cleaning and disinfection steps as outlined in USP <800>. AHP®'s 5 pillars of strength have helped support its reputation and use in this market.

REFERENCE

USP General Chapter <800> Hazardous Drugs – Handling in Healthcare Settings. December 2019. https://www.uspnf.com/sites/default/files/usp_pdf/EN/USPNF/revisions/gc-800-rb-notice-20190531.pdf

For more information visit PrevailDisinfectants.ca

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