

**Sterile Compounding Boot Camp® Virtual Training Series**  
**Best Practices for Handling Hazardous Drugs Live Virtual Course (10 CE hours)**  
**Included and required eLearning precourse curriculum found after the Live Virtual agenda listing**

**Day 1: 10:00 AM to 3:00 PM Eastern**

Time	Name of Live Activity	Learning Objectives (for CE Sessions)
10:00–10:30 AM	Introduction, overview, and explanation about course, introductory activity for the group	Each Live vCourse participant will introduce themselves: name, organization, state, specific areas of interest relative to the course topic.
10:30–11:30 AM	Overview of USP 800 and HD Handling	<ul style="list-style-type: none"> <li>• Cite examples of HD-exposure effects on persons who handle HDs.</li> <li>• Describe the location of resources regarding HD practice.</li> <li>• Recall common HD guidelines, standards, and regulatory and best practice events.</li> <li>• List the major elements of USP 800.</li> <li>• Differentiate between the scope of USP Chapters 795, 797, and 800.</li> <li>• Describe current issues related to USP Compounding Chapter enforceability and compendial applicability.</li> </ul>
11:30–11:45 AM	<i>Break</i>	
11:45 AM–1:00 PM	Containment Secondary Engineering Controls (C-SECs): Cleanroom Suites and C-SCAs	<ul style="list-style-type: none"> <li>• Describe the types of compliant C-SECs for nonsterile and sterile HD compounding.</li> <li>• Discuss considerations relevant to the use of pass-throughs in HD applications.</li> <li>• Analyze the allowable but suboptimal design of C-SECs and strategies used to compensate for such.</li> <li>• Describe the tests required for certification of C-SECs.</li> </ul>
1:00–1:45 PM	<i>Lunch</i>	
1:45–2:45 PM	Containment Primary Engineering Controls (C-PECs)	<ul style="list-style-type: none"> <li>• Describe the types of compliant C-PECs for nonsterile and sterile HD compounding.</li> <li>• Describe the tests required for certification of C-PECs.</li> </ul>
2:45–3:00 PM	Summary of day and preview of next day	

**CE for the day: 3.25 hours**

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**Day 2: 10:00 AM to 3:30 PM Eastern**

<b>Time</b>	<b>Name of Live Activity</b>	<b>Learning Objectives (for CE Sessions)</b>
10:00–11:00 AM	Donning, Doffing, and Types of Personal Protective Equipment (PPE)	<ul style="list-style-type: none"> <li>• List the best sequence in which to perform donning and doffing of HD PPE resulting in microbial protection of CSPs, HD containment and protection of the worker.</li> <li>• Differentiate between USP 800 requirements and CriticalPoint best practice recommendations.</li> <li>• Evaluate donning and doffing practices at your facility.</li> <li>• Modify practices based on best practice garbing to reduce HD contamination.</li> </ul>
11:00–11:15 AM	<i>Break</i>	
11:15 AM–Noon	Interactive Doffing Exercise	<ul style="list-style-type: none"> <li>• Watch a video of best practice doffing, and identify opportunities for improvement at your facility.</li> <li>• Identify a best practice doffing sequence.</li> </ul>
Noon–12:45 PM	<i>Lunch</i>	
12:45–2:00 PM	Work Practice Strategies for Receiving, Storing, Compounding, and Transporting HDs and HD CSPs	<ul style="list-style-type: none"> <li>• List the practice elements essential to reducing the generation of HD contamination and risk of exposure throughout the HD-use lifespan.</li> <li>• Differentiate between USP 800 requirements and CriticalPoint best practice recommendations.</li> <li>• Implement effective handling during compounding to ensure the final HD CSP container and packaging are free from HD contamination.</li> <li>• Evaluate safe transport procedures for HD inventory and final CSPs.</li> </ul>
2:00–2:15 PM	<i>Break</i>	
2:15–3:15 PM	Decontamination, Cleaning and Disinfection, and Residue Removal in HD Compounding Environments	<ul style="list-style-type: none"> <li>• Define and differentiate the terms deactivation, decontamination, cleaning, disinfection, and sanitization.</li> <li>• Identify agents that may be used for decontamination of hazardous drugs.</li> <li>• Properly sequence decontamination, cleaning and disinfection, and application of sterile IPA in HD environments.</li> <li>• Evaluate and modify your facility's current practices for decontamination, cleaning, and disinfection to ensure removal/containment of HD residue without compromising the state of microbial control.</li> </ul>
3:15–3:30 pm	Questions and answers; summary of day	

**CE for the day: 4 hours**

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**Day 3: 10:00 AM to 2:30 PM Eastern**

<b>Time</b>	<b>Name of Live Activity</b>	<b>Learning Objectives (for CE Sessions)</b>
10:00–10:30 AM	Interactive exercise: Negative-Pressure Compounding Versus the Use of a CSTD	<ul style="list-style-type: none"> <li>• Watch a video illustrating the difference between simple syringe manipulations using a simulated drug and compounding using positive, negative, and CSTD strategies.</li> <li>• Evaluate the time necessary to correctly perform negative-pressure compounding against the performance of potential supplemental engineering controls (ECs) at your location.</li> <li>• Modify negative-pressure compounding practices at your location if required.</li> </ul>
10:30–10:45 AM	<i>Break</i>	
10:45-11:45 AM	Elements and Practical Examples of Performing an Assessment of Risk (AoR)	<ul style="list-style-type: none"> <li>• List which drugs may be exempted from full containment and work practices of USP 800.</li> <li>• Define the components required in an AoR.</li> <li>• Evaluate different approaches to the creation and maintenance of an AoR.</li> <li>• Discuss specific examples of AoR strategies from actual practice.</li> </ul>
11:45–12:30 PM	<i>Lunch</i>	
12:30-1:00 PM	Response to HD Exposure and Spills	<ul style="list-style-type: none"> <li>• List the required elements of an exposure control and response plan, and evaluate your organization’s plan for compliance.</li> <li>• Discuss the requirements for HD spill cleanup.</li> <li>• Describe the logistical and practical hurdles that can be encountered in implementing an effective spill management program.</li> <li>• List potential strategies for effective spill management.</li> </ul>
1:00–1:45 PM	Interactive Exercise: Design and Build Evaluation of Facilities Intended for HD Compounding	<ul style="list-style-type: none"> <li>• Evaluate sample layouts, and identify areas of concern relative to USP 797 and 800 compliance, efficiency of workflow, and best practice considerations.</li> <li>• Revise sample layouts to ensure improved compliance, efficiency, and achievement of best practices.</li> </ul>
1:45-2:30 PM	Summary of class; last questions and answers	

**CE for the day: 2.75 hours**



***eCourse to be Completed Before Attending Live Virtual Training***  
***Requirements and Best Practices for Hazardous Drug Compounding (5 lessons/5 hours CE)***

**Introduction and Overview (1 hour)**

- List the adverse health risks of occupational exposure to hazardous drugs (HDs).
- Describe the occupational sources of HD contamination that may result in exposure of workers.
- Compare the key recommendations from OSHA, NIOSH, ASHP, and USP for minimizing the risk of occupational exposure to HDs.
- Develop a list of NIOSH-listed hazardous drugs handled at your organization.
- Discuss specific administrative, environmental, and work practice controls, and personal protective equipment (PPE) that result in improved safety.

**Primary and Secondary Engineering Controls (1 hour)**

- Describe the types of compliant HD primary and secondary engineering controls for both sterile and nonsterile compounding.
- Analyze the allowable and allowable-but-suboptimal designs of HD SECs.
- Discuss considerations relevant to the use of pass-throughs in HD applications.

**Use of Personal Protective Equipment (1 hour)**

- Discuss the rationale for the types of personal protective equipment (PPE) required and recommended for hazardous drug handling.
- Select the correct type of PPE for HD compounding and other handling and spill scenarios.
- List the proper sequence and method of donning and doffing HD PPE.

**Work Practice Strategies: Receiving, Storage, Compounding, Labeling, Packaging, and Transport (1 hour)**

- Differentiate between the traditional and CriticalPoint-proposed receiving paradigm relative to actions needed to ensure containment of hazardous drug residues.
- List the requirements for storing active pharmaceutical ingredients (APIs) and antineoplastic drugs that require manipulation.
- Describe the necessary elements and strategies for developing an assessment of risk for eligible drugs.
- Outline required and best work practices for storage, compounding, labeling, packaging, and transport of HD components and final HD CSPs.

**Work Practice Strategies: Decontamination of HD Spaces, Management of Spills and Staff Training (1 hour)**

- Properly sequence and perform decontamination in addition to other required elements of cleaning and disinfection in HD handling environments.
- Design an effective spill-management program that meets the requirements of USP 800 as well as addresses the logistical and practical challenges often encountered in managing spills.
- List considerations for trace and bulk hazardous drug disposal.
- Outline requirements for initial and ongoing training, competency assessment, and documentation for a hazardous drug compounding practice.