



Learning Objectives Module 2 – Sterile Compounding HD In-Person Training

10 CE hours

Lecture or Practical Knowledge Check (PKC)	Learning Objectives
Handling Hazardous Drugs and Standards to Prevent Harm (Lecture 1)	<ol style="list-style-type: none">1. Describe the history of the development of NAPRA Model Standards for compounding of hazardous drugs.2. Discuss NAPRA Model Standards related to HD handling.3. Provide examples of the effects of HD-exposure on persons who handle HDs.4. Develop a hazardous drug list per the NAPRA Model Standards.5. Describe requirements of hazardous drug compounding facilities.



Assessment of Risk (Lecture 2)	<ol style="list-style-type: none">1. Define the components required in an assessment of risk.2. Evaluate different approaches to the creation and maintenance of an assessment of risk.3. Discuss specific examples of alternative handling strategies from actual practice.
Hazardous Drug Engineering Controls (Lecture 3)	<ol style="list-style-type: none">1. Identify containment primary engineering controls (C-PECs) and the controlled areas in which they are placed.2. Outline the NAPRA Model Standards requirements for C-PECs and controlled areas.3. Discuss best practice recommendations for designing containment-controlled compounding areas.4. Describe types of C-PECs and the differences between them.
Interactive: Problem Solving Downtime Issues with Engineering Controls (Lecture 4)	<ol style="list-style-type: none">1. Discuss potential issues that may arise with engineering controls and containment engineering controls.2. Determine downtime procedures for different types of issues and downtimes.3. Evaluate the operational procedures needed in order to start preparing CSPs again.



HD PPE Donning and Doffing (Lecture 5)	<ol style="list-style-type: none">1. Identify what PPE is necessary when handling hazardous drugs and why.2. Explain NAPRA Model Standards and best practice recommendations for PPE donning and doffing practices.3. Outline the sequence of donning and doffing PPE when working in both a cleanroom and containment segregated compounding area.4. Evaluate proper industry requirements and best practice recommendations for PPE worn during HD compounding
Receiving, Material Handling and Transport (Lecture 6)	<ol style="list-style-type: none">1. Summarize work practices essential for reducing the generation of hazardous drug contamination and the risk exposure during receipt, storage, and transportation of hazardous drugs.2. Explain NAPRA Model Standards best practice recommendations for receiving, storing and transporting hazardous drugs.3. Describe safe transport procedures for hazardous materials and compounded sterile preparations
HD Spills and Kits (Lecture 7)	<ol style="list-style-type: none">1. Identify the NAPRA Model Standard requirements for handling an HD spill.2. Describe the required elements of an HD spill kit per the Prevention Guide – Safe Handling of Hazardous Drugs, published by ASSTSAS.3. Discuss the purpose and advantages of an ancillary HD spill kit.



HD Wipe Sampling (Lecture 8)	<ol style="list-style-type: none">1. Define what hazardous drug surface wipe sampling is and the importance of performing sampling.2. Outline the differences between quantitative and qualitative wipe sampling.3. Develop a hazardous drug wipe sampling program.
Practical Knowledge Check: HD Donning and Doffing (Lab 1)	<ol style="list-style-type: none">1. Perform PPE donning and doffing procedures when handling hazardous drugs.2. Assess the efficacy between using 2 pairs of linen shoe covers versus an inner pair of linen shoe covers and an outer pair of seamless water-resistant shoe covers.3. Compare the efficacy of using coated versus non-coated HD gowns.
Decontamination, Cleaning and Disinfecting (Lecture 9)	<ol style="list-style-type: none">1. Define the terms deactivation, decontamination, cleaning and disinfection and sanitization as they apply to HD compounding environments.2. List the types of agents that may be used for decontamination of hazardous drugs.3. Properly sequence the cleaning-related activities performed in HD environments



Compounding HDs (Lecture 10)	<ol style="list-style-type: none">1. Identify NAPRA Model Standard requirements related to compounding HDs.2. Explain the importance of protecting workers from HD residues during compounding.3. Review key differences between negative pressure technique and use of a Closed System Transfer Device (CSTD).4. Discuss the process for decontaminating and removing the completed CSP from C-PEC.
Practical Knowledge Check: CSTDs vs. Traditional Compounding (Lab 2)	<ol style="list-style-type: none">1. Identify both types of compounding methods while preparing HDs.2. Perform simulated compounding using both CSTDs or traditional compounding methods.3. Assess the efficiency and safety components when using CSTDs or the traditional compounding methods
Medical Surveillance (Lecture 11)	<ol style="list-style-type: none">1. Describe the purpose and elements of a medical surveillance program for employees who may be exposed to hazardous drugs.2. Discuss the stance of different organizations on the development of a medical surveillance program