

Personal Protective Equipment

TXCH Global HOPE



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Learning objectives

By the end of this presentation, the participant should be able to:

- Understand the importance of appropriate use of personal protective equipment (PPE)
- Explain appropriate donning, doffing, and scrubbing procedures
- Identify the appropriate frequency for validation of skills



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Components of Appropriate Aseptic Technique

Protecting patients

- Protecting "critical sites" during preparation
- Maintaining a clean environment
- **Wearing PPE**
- **Washing hands**
- Following aseptic technique standard operating procedures

Protecting healthcare professionals

- Protecting "critical sites" during preparation
- Maintaining a clean environment
- **Wearing PPE**
- **Washing hands**
- Following aseptic technique standard operating procedures

The approaches are generally the same – emphasizing their importance!



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What is PPE?

- Attire or supplies which are...
 - Donned (put on) by healthcare professionals to achieve aseptic technique goals
 - Donned (put on) by healthcare professionals prior to handling hazardous drugs, including during:
 - Unpacking or unboxing
 - Preparation and dispensing
 - Administration
 - Disposal
 - Doffed (removed) when medication preparation or handling is complete



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PPE Dress Code

- Shoe covers
- Hair covers
 - Head
 - Facial hair, when applicable
- Mask
- Cover gown
 - Chemo-certified gown for hazardous drugs (elastic wrists, opens to the back, non-shedding impenetrable to chemo)
 - Other standard, non-shedding, sterile gowns for non-hazardous drugs
- Sterile, powder-free, latex-free gloves
 - Chemo-certified (meets ASTM D6978 criteria) for hazardous drugs handling
 - Standard, non-chemo gloves for non-hazardous drugs



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PPE Donning Procedure

- PPE should be stored in a convenient place to ensure consistent use
 - In the ante-room near the sink for aseptic technique
 - In the unpacking/unboxing area for drug shipments
 - In oral dispensing areas for oral preparations
- All materials should be gathered prior to beginning the donning process
- Typically apply/don PPE in order from "dirtiest to cleanest" location



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PPE Donning Procedure: Part 1/Ante Room Area

- PPE should be donned in the ante room or area just outside of the location of aseptic preparation (if no ante room)
- New, unused, unworn PPE should be used each time the donning procedure is conducted
- If PPE supplies are dropped, contaminated, or appear unsanitary, dispose of them and use new supplies

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    graph TD
      A[Shoe covers] --> B[Hair cover]
      B --> C[Face mask  
(facial hair cover if applicable)]
      C --> D[Sanitize hands with correct  
scrubbing procedure]
      D --> E[Gown]
  
```

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Scrubbing Procedure

- Scrubbing should occur during the garbing process described previously or if the compounding contaminates hands or arms (i.e., touching the face or hair)
- Only approved antiseptic soap should be used during the scrubbing process

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    graph LR
      A[Activate faucet] --> B[Scrub hands for 1 minute  
from hands to elbows,  
holding hands and arms up  
so water runs toward elbows]
      B --> C[Rinse and dry  
with lint free  
towel]
      C --> D[Discard towel]
  
```

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PPE Donning Procedure: Part 2/Clean Room Area

- Hands and gloves must be further sterilized prior to medication preparation
- If PPE supplies are dropped, contaminated, or appear unsanitary during donning procedure, exit the clean room/preparation area and put on new PPE
- Re-clean gloves with 70% isopropyl alcohol intermittently during compounding and when non-sterile surfaces are touched

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    graph TD
      A[Enter clean room using hands  
free method] --> B[Apply alcohol based hand  
scrub; allow to air dry. Do not  
fan hands.]
      B --> C[Put on gloves so they form a  
continuous barrier with the  
gown (gloves over gown wrists)]
      C --> D[Disinfect gloves with sterile  
70% isopropyl alcohol. Allow to  
air dry]
  
```

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A Special Note on Gloves

- Gloves should be **discarded immediately** if broken or damaged in any way, **even if this occurs while working in the clean room**
- Gloves should **never** be re-used
 - Risk of contamination of the product
 - Risk of exposure to the healthcare professional and the environment

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PPE Doffing Procedure

- All PPE should be disposed when exiting the clean room/aseptic preparation area
- PPE should be removed as follows (in order):
 - Gloves
 - Gown
 - Hair cover and mask
 - Shoe covers

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PPE Procedure: Next Steps

- Watch the Donning and Doffing Video on Moodle
- Take the Post-Test Quiz on Donning, Doffing, and Personal Protective Equipment

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