

Bloodborne Pathogens Key Topic for 2013 Spills

In 2013, the Occupation Health & Safety (OH&S) Bloodborne Pathogens course focused on bloodborne pathogens spills.

First Steps When Cleaning Up a BBP Spill

What to Do in Case of a Spill

When a spill occurs, you should be able to:

1. Determine the nature and size of the spill
2. Choose the appropriate PPE for the job
3. Clean up the spill using the appropriate tools and moving in the correct direction
4. Dispose of the hazardous materials properly

Determining the Nature of the Spill

First, determine the nature of the material spilled or the BBP/OPIM in the spill. Was it blood, bodily fluids, OPIM, non-regulated material?

Remember, some body fluids that contain no blood would be examples of non-regulated material (e.g., urine with no visible blood). The spill would be cleaned up just like any other spill.

Determining the Size of the Spill

Usually, a small spill is one to two milliliters (ml) of fluid. When the material “sticks” to the surface and generally does not run, it is considered a small spill.

NOTE: Five ml is approximately one teaspoon so two mL would be approximately ¼ teaspoon of fluid.



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Spills



A large spill usually runs or flows. In other words, when the material is of sufficient quality that it tends to seek its own level, it is considered a large spill. This means the fluid would run to a low point in the area. Every attempt should be made to **stop the flow as soon as possible**.

Wearing the Appropriate Personal Protective Equipment (PPE)

The Basic PPE

Standard precautions now state that **all** blood, body fluids, or OPIM are to be considered contaminated with a bloodborne pathogen. This means that PPE should **always** be worn during spill cleanup. What you wear depends on the material and the size of the spill.

You must wear a:

- Clean, buttoned lab coat or disposable gown
- Appropriate gloves
- Shoe covers

Additional PPE

When blood, body fluids, or OPIM spills occur, there is a potential to splash them into the membranes when cleaning up. Wear face/mucous membrane protection if the spill is sufficient to create a splash hazard.

Contact OH&S if you have questions about the appropriate PPE.

Cleaning Up the BBP Spill

Materials Needed

Since you work with bloodborne pathogens in your area, you should have a plan for spills as well as a spill kit.

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The spill kit should include:

- Material to dyke (stop) the flow of large spills
- Absorbent material
- Disinfectant
- Tools to clean up the spill (broom, dustpan, hemostat, or tongs)

Spill kits can be made up from available materials in your lab or purchased from a vendor. If you choose to purchase a spill kit, make sure it is designated for biological spills, not chemical spills.

The Disinfectant

UAB uses hospital grade disinfectant. It should have the term “tuberculocidal” or the words “hospital grade” on the label. Makes sure that you read and follow the instructions for the length of contact time.



Figure 1 Virex II 256 Disinfectant

Cleanup Procedures

1. Place an absorbent material completely over the spill.
2. Pour (do not spray) the disinfectant on top of the absorbent starting at the outer most edge and spiraling in toward the center as shown here.
3. Leave the disinfectant and absorbent material on the spill for the recommended contact time listed on the disinfectant bottle.
4. After the contact time specified on the disinfectant bottle has passed, use the proper tools to pick up the hazardous medical waste – hemostat, tongs, stiff cardboard, or a broom and a dustpan.

Figure 2 Pour the disinfectant on top starting outside and spiraling in toward the center.



Figure 3 Hemostat being used to pick up hazardous medical waste



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- If all you have to “scoop” up the spilled material is two pieces of stiff cardboard, this will work. It is not the ideal material to use, but it will work **if necessary**. The purpose of the cardboard or other clean up tools is to avoid contact with the material spilled.



Figure 4 You should **not** use cardboard unless it is the only material available.

2. **Never** touch the spilled material with your hands – not even with gloves on!
3. **Never** leave a spill area *unless* others in the area are notified that the floor may be wet.
 - **Appropriate signage should be posted to warn others that the floor might be wet.**
 - It should be removed when the area is dry, and the spill is completely cleaned up and disposed of properly.

Disposal and Tips

NOTE: If you generate medical waste, it is **mandatory** that you complete the Medical Waste Management for Labs course **every three years**.

Proper Disposal

Dispose of all spill cleanup material in the medical waste stream. This includes the tools used for cleanup.

1. Place non-sharp items in the red medical waste bags.
2. Place items classified as sharps (e.g., scalpels, glass, and syringes) in the sharps containers.

Tips

1. Ask if there is a spill cleanup plan based on the potential spills likely to happen in your area. The plan should include your spill kit and the items that should be in it. If one is not available, help develop it.
2. Always have a spill kit available and fully stocked at all times.
 - a. If a spill is too large to manage on your own, call for help – another co-worker, Environmental Services, or OH&S Biosafety Program.