

# Lessons Learned

## Needlestick Injury in the Laboratory



### What Happened?

While working in a laboratory, a postdoctoral associate was centrifuging human plasma and used a needle and syringe to transfer isolated purified proteins from a centrifuge tube. While transferring the material, **he accidentally stuck himself with the needle on his index finger.**

After the exposure, he immediately washed out the wound and went to the New York Presbyterian Emergency Department for the treatment and evaluation of potential bloodborne pathogen exposure.

### Why Did This Happen?

- The postdoctoral associate used a sharp device to transfer fluids while working with potentially infectious materials.
- **Sharps-related injuries are some of the most common causes of exposures in the laboratory.** Injuries from needles, scalpel blades and glass pipettes injuries pose a potential threat to an individual's health due to the nature of the materials being worked with, e.g., blood, microorganisms, or recombinant DNA.

### Lessons Learned

- When working with potentially infectious materials, the use of sharps should be eliminated, where possible, to prevent exposures.
- **There are safer ways to transfer fluids that do not require the use of a needle.** Had the postdoc associate used non-sharp devices such as sterile plastic transfer pipettes, a pipettor with a plastic tip, or blunt-tip safety needles instead of a needle and syringe; the needle-stick would have been prevented.
- If a project involves the use of sharps, **an engineered safety device** should be chosen. A [list of safety devices](#) is available online, and if needed, EHS is available to provide assistance.
- Projects using needles or sharps must ensure **proper disposal immediately after use in a sharps container**, preferably within arms' reach. **Over-filling sharps containers must be avoided**, as this has led to injuries.
- In the event of an exposure in the laboratory; **follow the Exposure and Spill Response Guide [posted within the lab](#)**, get help as needed, decontaminate affected areas, seek medical assistance and report the incident.
- In the event of an exposure to blood or bodily fluids, such as a splash or spray to the eyes, nose, mouth, or a skin puncture; **immediately cleanse the exposed area with copious amounts of water for at least 3 minutes** at the nearest sink or eyewash station.
- Additional information on accidental exposures can be found in the [WCM Bloodborne Pathogen Exposure Control Plan](#).



*The use of sharps (i.e., needles, glass, scalpels or razors) should be evaluated for all laboratory protocols.*



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