**Background:**

Sharps injuries are a common hazard faced by healthcare workers in a variety of settings, putting workers at risk of acquiring HCV, HBV, HIV and other diseases. Studies have shown an increased risk of sharps injuries during vaccination clinics, with one study finding a 5-fold increase at county mass vaccination clinics during the influenza A (H1N1) pandemic in 2009.[[1]](#footnote-1), [[2]](#footnote-2) Massachusetts data demonstrates that injection procedures account for the most sharps injuries in hospital settings, with 25% of those involving intramuscular injections.[[3]](#footnote-3)

**Regulatory Requirements:**

The OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030 [www.osha.gov/bloodborne-pathogens](http://www.osha.gov/bloodborne-pathogens)) covers all private sector workers. State and municipal workers are covered by the Massachusetts Department of Labor Standards, which requires compliance with OSHA standards.[[4]](#footnote-4) Both private and public sector employers must comply with the OSHA Bloodborne Pathogens Standard.

**Components of a Sharps Injury Prevention Program:**

* Offer HBV vaccination free of charge to all workers with possible occupational exposure
* Establish an exposure control plan with site specific information. (A detailed sample exposure control plan is available at: URL)
* Identify and use engineering controls, including sharps with engineered sharps injury protections.
* Identify and ensure use of work practice controls.
* Provide appropriate personal protective equipment (PPE) (i.e., gloves, masks). Latex free gloves are preferred.
* Provide sharps disposal containers that are closable, puncture resistant, leakproof, and labeled. Containers should be located at the point of use, stand upright, and replaced routinely when ¾ full. Information about the selection and use of sharps containers is available from NIOSH at <https://www.cdc.gov/niosh/docs/97-111/default.html>.
* Establish site specific protocols for reporting a sharps injury. Conduct a post-exposure evaluation and identify where to send injured workers for clinical follow-up.
* Use labels and signs to communicate hazards.
* Provide information and training to all workers. Training sessions should have a competent individual available to answer questions in real time and should include risks of bloodborne pathogens, location of PPE, use of devices with sharps injury prevention features, and procedures for reporting sharps injuries and other exposure incidents.
* Maintain records regarding sharps injuries, HBV vaccinations and training provide.

**What to do if there is a sharps injury:**

Designate one person for each shift responsible for managing exposure incidents. Designate an area away from others to begin the post-exposure protocols. Identify a medical provider (e.g., a hospital or urgent care center) within close proximity to the clinic capable of providing post-exposure follow-up and testing for both the source individual and the injured worker.

Post-exposure protocols for injured worker:

* Clean the wound with soap and water
* Provide information to the worker about where to go to receive post-exposure care, including baseline testing for HBV, HCV, and HIV, counseling on the risk of transmission of disease, and if necessary post-exposure prophylaxis. It is important to know the name of the treating provider so that the source patient’s test results can be shared with the physician; this information is necessary for determining a course of treatment for the injured healthcare worker.
* Maintain a record of the circumstances of the exposure incident.

Dealing with the source patient (individual being vaccinated):

* Let the individual being vaccinated know that a healthcare worker was stuck with needle used to administer their vaccine and reassure them that none of the healthcare worker’s blood got on them. Ask the individual to come to a private area within the clinic so that the designated person can ask some questions, provide counseling on the exposure incident, and discuss testing for HBV, HCV and HIV. Let them know that the test results are critical for making decisions about treatment for the injured worker. Provide information about where to go for testing. Be clear with the individual about the means for paying for this testing.

**Reporting product feedback:**

Serious injuries to patients or workers (including sharps injuries) and device malfunctions can be reported to the FDA using FDA Manufacturer and User Facility Device Experience (MAUDE) [http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfmaude/search.cf](http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfmaude/search.cfF) or FDA Medwatch <https://www.fda.gov/safety/medwatch-fda-safety-information-and-adverse-event-reporting-program>.

Information can also be provided directly to the device manufacturer. Additional information about sharing feedback on devices can be found at UMass Lowell’s Sustainable Hospitals Program ([https://www.uml.edu/docs/medwatch%20for%Sharps%20052215\_tcm18-187544.pdf](https://www.uml.edu/docs/medwatch%20for%25Sharps%20052215_tcm18-187544.pdf))

**Additional resources**

OSHA:

* Keeping workers safe at COVID-19 vaccination sites <https://www.osha.gov/sites/default/files/publications/OSHA4109.pdf>

NIOSH:

* Needlestick Injuries are Preventable <https://www.cdc.gov/niosh/newsroom/feature/needlestick_disposal.html>

NIEHS

* Key Elements of a Model Workplace Safety and Health COVID-19 Vaccination Program <https://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=12621>
* Injection Safety for COVID-19 Vaccinators & Vaccine Administrators Preventing Needlesticks and Blood Exposures <https://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=12601>

**Questions?**

Email the Sharps Injury Surveillance Project at [sharps.injury@mass.gov](mailto:sharps.injury@mass.gov)

1. Williams NJ, Ghosh TS, and Vogt RL. Needlestick injury surveillance during mass vaccination clinics: Lessons learned and why more is needed Tri-County (Denver Metropolitan) region, Colorado, 2009. American Journal of Infection Control 40 (2012) 768-70 [↑](#footnote-ref-1)
2. de Perio MA. Needlestick Injuries among Employees at a National Retail Pharmacy Chain, 2000-2011. Infect Control Hosp Epidemiol 2012;33(11):1156-1158 [↑](#footnote-ref-2)
3. MDPH Sharps Injury Surveillance System (unpublished) [↑](#footnote-ref-3)
4. M.G.L. c149 §6-1/2 [www.mass.gov/info-details/mass-general-laws-c149-ss-6-12](http://www.mass.gov/info-details/mass-general-laws-c149-ss-6-12) [↑](#footnote-ref-4)