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Clinical Advisory:

HIV Screening of Incapacitated Source Patients in Occupational Exposures in MA

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The purpose of this clinical advisory is to provide options for HIV screening of incapacitated source patients in occupational settings in the Commonwealth. Occupational exposures are described and regulated by the Centers for Disease Control and Prevention (CDC), United States Public Health Service (USPHS), and the Occupational Safety and Health Administration (OSHA), whose documents and guidelines are referenced throughout this document.

Background

In a clinical setting, occupational exposure to blood and other bodily fluids can occur through contact with skin and mucous membranes, as well as through sharps injuries such as needlesticks. The OSHA Bloodborne Pathogens Standard requires that an exposed employee be provided with evaluation and follow-up "according to the recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place."¹ The CDC has developed recommendations to reduce the risk of becoming infected with HIV following an exposure.² The CDC recommendations include determining the HIV status of the source patient, and determining possible administration of post-exposure prophylaxis (PEP). PEP is the short-term use of antiretroviral drugs after a single high-risk event to reduce the likelihood of HIV infection.³

Among Health Care Workers (HCW), 58 confirmed and 150 possible cases of occupationally acquired HIV infection were reported to the CDC from 1985–2013.⁴ Since 1999, only one confirmed case of occupationally acquired HIV infection has been reported (in 2008, a laboratory technician sustained a needle puncture while working with a live HIV culture).⁵ Case reporting of HCW exposures is voluntary, therefore underreporting of cases to the CDC is possible. The risk of occupational transmission of HIV varies with the type and severity of exposure.^{6,7,8} The average risk for HIV transmission after a percutaneous exposure to HIV-infected blood has been estimated to be approximately 0.3% from prospective studies of health care workers (approximately 0.09% after a mucous membrane exposure).⁹

US Public Health Service Guidelines

The USPHS first issued recommendations for the use of PEP after occupational exposure to HIV in 1996.¹⁰ The recommendations have been updated three times to reflect advances in testing technologies and anti-viral treatment options.^{6,7,11} The recommendations have continuously included determination of the HIV status of the exposure source patient to guide the need for HIV PEP.¹²

The HIV status of the source patient should be determined as soon as feasible to guide appropriate use of HIV PEP. USPHS recommendations indicate that all current FDA-approved HIV tests can be used to

determine the HIV status of the source patient including rapid tests, third-generation immunoassays, and fourth-generation combination p24 antigen–HIV antibody (Ag/Ab) tests (which produce both rapid and accurate results, and their p24 antigen detection allows identification of most acute infections).¹³ **MDPH recommends utilization of the fourth-generation combination p24 antigen-HIV antibody test to determine those source patients with acute infection.** Determination of PEP initiation and utilization anti-retroviral treatments is described in the USPHS recommendations.¹⁴

HIV Screening of Source Patients in Massachusetts

Following an exposure, a source patient is asked to voluntarily disclose their HIV status, or voluntarily give consent to be tested for HIV. M.G.L. c. 111, §70F permits a patient to provide verbal informed consent to be tested for HIV (written informed consent may be substituted for verbal).¹⁵ However, disclosing the results of a person’s HIV test, or identifying a person as the subject of an HIV test, requires written informed consent. Thus, following an occupational exposure, the source patient would need to provide either written or verbal informed consent to be tested, and additionally provide written informed consent to release the test results to the exposed individual. Specific consent to release this test result may also be included in a general consent to care, or a general consent for release of medical information, so long as the consent for release of HIV test results is a discrete section of the general consent form.¹⁶

HIV Screening of Incapacitated Source Patients in Massachusetts

In certain instances, the source patient of an occupational exposure may be, or may become, incapacitated (unable to make or communicate health care decisions) and incapable of providing verbal consent to testing or written consent for the release of test results.¹⁷ When a health care worker is exposed to the blood or other potentially infectious materials of a patient who is incapacitated, clinical staff should consult with legal counsel. In these cases, there are two options to determine the HIV status of the source patient:

1. Valid and Invoked Health Care Proxy

If an individual has a health care proxy, legal documentation should be kept in the medical record of the patient to inform health care facilities or clinical practices. A health care proxy assigns health decisions for an incapacitated individual to another individual. These decisions can include HIV testing and release of the test results.¹⁸ A health care proxy must be valid (signed by the principal and two witnesses who are not the health care agent) and invoked (the attending physician determines that the principal is incapacitated and documents it in the medical record). Any questions or concerns should be conveyed to the facility’s legal counsel for resolution.

2. Temporary Guardianship

In certain circumstances, an incapacitated source patient may have no previous documentation of HIV status and no health care proxy. Facility legal staff may choose to pursue a temporary guardianship in order to obtain authority for the source patient to be tested for HIV and have the test results released to the exposed person. The court determines if an immediate emergency situation exists based on the facts of the case, and may choose to shorten or waive the notice requirements in order to expedite the appointment of a temporary guardian. The motion should specifically request HIV testing and release of results as the nature of the circumstances requiring an immediate hearing. Temporary guardianship is valid for 90 days.¹⁹

¹ The U.S. Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard (29 CFR 1910.1030) [Bloodborne pathogens. - 1910.1030](https://www.osha-slc.gov/bloodborne-pathogens)

² <http://www.cdc.gov/hiv/risk/other/occupational.html>

³ [PEP | HIV Basics | HIV/AIDS | CDC](https://www.cdc.gov/hiv/resources/pep/)

⁴ Joyce MP, Kuhar D, Brooks JT. *Notes from the Field: Occupationally Acquired HIV Infection Among Health Care Workers — United States, 1985–2013* **January 9, 2015 / 63(53):1245–1246.** http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6353a4.htm?s_cid=mm6353a4_w#fig

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- ⁵ Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, unpublished data, 2014.
- ⁶ Centers for Disease Control and Prevention. Public Health Service guidelines for the management of health-care worker exposures to HIV and recommendations for postexposure prophylaxis. *MMWR Recomm Rep* 1998;47(RR-7):1–33. [Public Health Service Guidelines for the Management of Health-Care Worker Exposures to HIV and Recommendations for Postexposure Prophylaxis](#)
- ⁷ Centers for Disease Control and Prevention. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for postexposure prophylaxis. *MMWR Recomm Rep* 2001;50(RR-11):1–52. <http://www.cdc.gov/mmwr/PDF/rr/rr5011.pdf>
- ⁸ Bell DM. Occupational risk of human immunodeficiency virus infection in healthcare workers: an overview. *Am J Med* 1997;102(5B):9–15. <http://www.ncbi.nlm.nih.gov/pubmed/9845490>
- ⁹ Ippolito G, Puro V, De Carli G; Italian Study Group on Occupational Risk of HIV infection. The risk of occupational human immunodeficiency virus infection in health care workers: Italian multicenter study. *Arch Intern Med* 1993;153(12):1451–1458. <http://www.ncbi.nlm.nih.gov/pubmed/8512436>
- ¹⁰ Centers for Disease Control and Prevention. Update: provisional Public Health Service recommendations for chemoprophylaxis after occupational exposure to HIV. *MMWR Morb Mortal Wkly Rep* 1996;45(22):468–480. <http://www.ncbi.nlm.nih.gov/pubmed/8622618>
- ¹¹ Panlilio AL, Cardo DM, Grohskopf LA, Heneine W, Ross CS; US Public Health Service. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HIV and recommendations for postexposure prophylaxis. *MMWR Recomm Rep* 2005;54(RR-9):1–17. <http://www.ncbi.nlm.nih.gov/pubmed/16195697>
- ¹² In addition, the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) requires that post-exposure evaluation and follow up be provided “according to the recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place” <https://www.osha.gov/pls/oshaweb/>
- ¹³ Chavez P, Wesolowski L, Patel P, Delaney K, Owen SM. Evaluation of the performance of the Abbott ARCHITECT HIV Ag/Ab combo assay. *J Clin Virol* 2011;52(suppl 1):S51–S55. <http://www.ncbi.nlm.nih.gov/pubmed/21983253>
- ¹⁴ Kuhar, David T. et al Updated US Public Health Service Guidelines for the Management of Occupational Exposures to Human Immunodeficiency Virus and Recommendations for Postexposure Prophylaxis, *Infection Control and Hospital Epidemiology* Vol. 34, No. 9, September 2013 (pp. 875-892) <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section70F>.
- ¹⁵ <http://www.mass.gov/eohhs/docs/dph/aids/routine-hiv-screening-clinical-advisory.pdf>
- ¹⁶ “Incapacitated person”, an individual who for reasons other than advanced age or minority, has a clinically diagnosed condition that results in an inability to receive and evaluate information or make or communicate decisions to such an extent that the individual lacks the ability to meet essential requirements for physical health, safety, or self-care, even with appropriate technological assistance. <https://malegislature.gov/Laws/GeneralLaws/PartII/TitleII/Chapter190B/ArticleV/Section5-308>
- ¹⁸ See MGL c.190B, 5-101 (8) and c. 201D [GeneralLaws/PartII/TitleII/Chapter190B/ArticleV/Section5-101](https://malegislature.gov/Laws/GeneralLaws/PartII/TitleII/Chapter190B/ArticleV/Section5-101), [GeneralLaws/PartII/TitleII/Chapter201D](https://malegislature.gov/Laws/GeneralLaws/PartII/TitleII/Chapter201D)
- ¹⁹ See M.G.L. c.190B, § 5-101 (6) and § 5-308 [M.G.L. c.190B, § 5-101 \(6\) and § 5-308](https://malegislature.gov/Laws/GeneralLaws/PartII/TitleII/Chapter190B/ArticleV/Section5-101)