## **Bloodborne Pathogen Exposure Incidents**

OSHA's Bloodborne Pathogens standard (29 CFR 1910.1030) requires employers to make immediate confidential medical evaluation and follow-up available for workers who have an exposure incident, such as a needlestick. An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials (OPIM), as defined in the standard that results from the performance of a worker's duties.

## **Reporting an Exposure Incident**

Exposure incidents should be reported immediately to the employer since they can lead to infection with hepatitis B virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus (HIV), or other bloodborne pathogens. When a worker reports an exposure incident right away, the report permits the employer to arrange for immediate medical evaluation of the worker. Early reporting is crucial for beginning immediate intervention to address possible infection of the worker and can also help the worker avoid spreading bloodborne infections to others. Furthermore, the employer is required to perform a timely evaluation of the circumstances surrounding the exposure incident to find ways of preventing such a situation from occurring again.

Reporting is also important because part of the follow-up includes identifying the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law, and determining the source's HBV and HIV infectivity status. If the status of the source individual is not already known, the employer is required to test the source's blood as soon as feasible, provided the source individual consents. If the individual does not consent, the employer must establish that legally required consent cannot be obtained. If state or local law allows testing without the source individual's consent, the employer must test the individual's blood, if it is available. The results of these tests must be made available to the exposed worker and the worker must be informed of the laws and regulations about disclosing the source's identity and infectious status.

## **Medical Evaluation and Follow-up**

When a worker experiences an exposure incident, the employer must make immediate confidential medical evaluation and follow-up available to the worker. This evaluation and follow-up must be: made available at no cost to the worker and at a reasonable time and place; performed by or under the supervision of a licensed physician or other licensed healthcare professional; and provided according to the recommendations of the U.S. Public Health Service (USPHS) current at the time the procedures take place. In addition, laboratory tests must be conducted by an accredited laboratory and also must be at no cost to the worker. A worker who participates in post-exposure evaluation and follow-up may consent to have his or her blood drawn for determination of a baseline infection status, but has the option to withhold consent for HIV testing at that time. In this instance, the employer must ensure that the worker's blood sample is preserved for at least 90 days in case the worker changes his or her mind about HIV testing.

Post-exposure prophylaxis for HIV, HBV, and HCV, when medically indicated, must be offered to the exposed worker according to the current recommendations of the U.S. Public Health Service. The post-exposure follow-up must include counseling the worker about the possible implications of the exposure and his or her infection status, including the results and interpretation of all tests and how to protect personal contacts. The follow-up must also include evaluation of reported illnesses that may be related to the exposure.

## **Written Opinion**

The employer must obtain and provide the worker with a copy of the evaluating healthcare professional's written opinion within 15 days of completion of the evaluation. According to OSHA's standard, the **written opinion** should only include: whether hepatitis B vaccination was recommended for the exposed worker; whether or not the worker received the vaccination, and that the healthcare provider informed the worker of the results of the evaluation and any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment. Any findings other than these are not to be included in the written report.

#### **Additional Information**

For more information, go to OSHA's Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics web page at: https://www.osha.gov/SLTC/bloodbornepathogens/index.html.

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## **Hepatitis B Vaccination Protection**

Hepatitis B virus (HBV) is a pathogenic microorganism that can cause potentially lifethreatening disease in humans. HBV infection is transmitted through exposure to blood and other potentially infectious materials (OPIM), as defined in the OSHA Bloodborne Pathogens standard, 29 CFR 1910.1030.

Any workers who have reasonably anticipated contact with blood or OPIM during performance of their jobs are considered to have occupational exposure and to be at risk of being infected. Workers infected with HBV face a risk for liver ailments which can be fatal, including cirrhosis of the liver and primary liver cancer. A small percentage of adults who get hepatitis B never fully recover and remain chronically infected. In addition, infected individuals can spread the virus to others through contact with their blood and other body fluids.

An employer must develop an exposure control plan and implement use of universal precautions and control measures, such as engineering controls, work practice controls, and personal protective equipment to protect all workers with occupational exposure. In addition, employers must make hepatitis B vaccination available to these workers. Hepatitis B vaccination is recognized as an effective defense against HBV infection.

### **HBV Vaccination**

The standard requires employers to offer the vaccination series to all workers who have occupational exposure. Examples of workers who may have occupational exposure include, but are not limited to, healthcare workers, emergency responders, morticians, first-aid personnel, correctional officers and laundry workers in hospitals and commercial laundries that service healthcare or public safety institutions. The vaccine and vaccination must be offered at no cost to the worker and at a reasonable time and place.

The hepatitis B vaccination is a non-infectious, vaccine prepared from recombinant yeast cultures, rather than human blood or plasma. There is no risk of contamination from other bloodborne

pathogens nor is there any chance of developing HBV from the vaccine.

The vaccine must be administered according to the recommendations of the U.S. Public Health Service (USPHS) current at the time the procedure takes place. To ensure immunity, it is important for individuals to complete the entire course of vaccination contained in the USPHS recommendations.

The great majority of those vaccinated will develop immunity to the hepatitis B virus. The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although workers may desire to have their blood tested for antibodies to see if vaccination is needed, employers cannot make such screening a condition of receiving vaccination and employers are not required to provide prescreening.

Employers must ensure that all occupationally exposed workers are trained about the vaccine and vaccination, including efficacy, safety, method of administration, and the benefits of vaccination. They also must be informed that the vaccine and vaccination are offered at no cost to the worker. The vaccination must be offered after the worker is trained and within 10 days of initial assignment to a job where there is occupational exposure, unless the worker has previously received the vaccine series, antibody testing has revealed that the worker is immune, or the vaccine is contraindicated for medical reasons. The employer must obtain a written opinion from the licensed healthcare professional within 15 days of the completion of the evaluation for vaccination. This written opinion is limited to whether hepatitis B vaccination is indicated for the worker and if the worker has received the vaccination.

## **Declining the Vaccination**

Employers must ensure that workers who decline vaccination sign a declination form. The purpose of this is to encourage greater participation in the vaccination program by stating that a worker declining the vaccination remains at risk of acquiring hepatitis B. The form also states that if a worker initially declines to receive the vaccine, but at a later date decides to accept it, the employer is required to make it available, at no cost, provided the worker is still occupationally exposed.

#### **Additional Information**

For more information, go to OSHA's Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics web page at: https://www.osha.gov/SLTC/bloodbornepathogens/index.html.

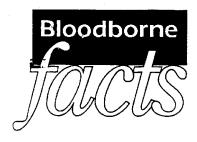
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## Holding the Line on Contamination

U.S. Department of Labor Occupational Safety and Health Administration



Keeping work areas in a clean and sanitary condition reduces employees' risk of exposure to bloodborne pathogens. Each year about 8,700 health care workers are infected with hepatitis B virus, and 200 die from contracting hepatitis B through their work. The chance of contracting human immunodeficiency virus (HIV), the bloodborne pathogen which causes AIDS, from occupational exposure is small, yet a good housekeeping program can minimize this risk as well.

#### DECONTAMINATION

Every employer whose employees are exposed to blood or other potentially infectious materials must develop a written schedule for cleaning each area where exposures occur. The methods of decontaminating different surfaces must be specified, determined by the type of surface to be cleaned, the soil present and the tasks or procedures that occur in that area.

For example, different cleaning and decontamination measures would be used for a surgical operatory and a patient room. Similarly, hard surfaced flooring and carpeting require separate cleaning methods. More extensive efforts will be necessary for gross contamination than for minor spattering. Likewise, such varied tasks as laboratory analyses and normal patient care would require different techniques for clean-up.

Employees must decontaminate working surfaces and equipment with an appropriate disinfectant after completing procedures involving exposure to blood. Many laboratory procedures are performed on a continual basis throughout a shift. Except as discussed below, it is not necessary to clean and decontaminate between procedures. However, if the employee leaves the area for a period of time, for a break or lunch, then contaminated work surfaces must be cleaned.

Employees also must clean (1) when surfaces become obviously contaminated; (2) after any spill of blood or other potentially infectious materials; and (3) at the end of the work shift if contamination might have occurred. Thus, employees need not decontaminate the work area after each patient care procedure, but only after those that actually result in contamination.

If surfaces or equipment are draped with protective coverings such as plastic wrap or aluminum foil, these coverings should be removed or replaced if they become obviously contaminated. Reusable receptacles such as bins, pails and cans that are likely to become contaminated must be inspected and decontaminated on a regular basis. If contamination is visible, workers must clean and decontaminate the item immediately, or as soon as feasible.

Should glassware that may be potentially contaminated break, workers need to use mechanical means such as a brush and dustpan or tongs or forceps to pick up the broken glass--never by hand, even when wearing gloves.

Before any equipment is serviced or shipped for repairing or cleaning, it must be decontaminated to the extent possible. The equipment must be labeled, indicating which portions are still contaminated. This enables employees and those who service the equipment to take appropriate precautions to prevent exposure.

## REGULATED WASTE

In addition to effective decontamination of work areas, proper <a href="https://example.com/handling.com/hand

Containers used to store regulated waste must be closable and suitable to contain the contents and prevent leakage of fluids. Containers designed for sharps also must be puncture resistant. They must be labeled or color coded to ensure that employees are aware of the potential hazards. Such containers must be closed before removal to prevent the contents from spilling. If the outside of a container becomes contaminated, it must be placed within a second suitable container.

Regulated waste must be disposed of in accordance with applicable state and local laws.

#### LAUNDRY

Laundry workers must wear gloves and handle contaminated laundry as little as possible, with a minimum of agitation. Contaminated laundry should be bagged or placed in containers at the location where it is used, but not sorted or rinsed there.

Laundry must be transported within the establishment or to outside laundries in labeled or red color-coded bags. If the facility uses Universa Precautions for handling all soiled laundry, then alternate labeling or color coding that can be recognized by the employees may be used. If laundry is wet and it might soak through **laundry** bags, then workers must use bags that prevent leakage to transport it.

#### RESEARCH FACILITIES

More stringent decontamination requirements apply to research laboratories and production facilities that work with concentrated strains of HIV and HBV.

## **OSHA's Bloodborne Pathogens Standard**

Bloodborne pathogens are infectious microorganisms present in blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV), the virus that causes AIDS. Workers exposed to bloodborne pathogens are at risk for serious or life-threatening illnesses.

## **Protections Provided by OSHA's Bloodborne Pathogens Standard**

All of the requirements of OSHA's Bloodborne Pathogens standard can be found in Title 29 of the Code of Federal Regulations at 29 CFR 1910.1030. The standard's requirements state what employers must do to protect workers who are occupationally exposed to blood or other potentially infectious materials (OPIM), as defined in the standard. That is, the standard protects workers who can reasonably be anticipated to come into contact with blood or OPIM as a result of doing their job duties.

In general, the standard requires employers to:

- Establish an exposure control plan. This is a
  written plan to eliminate or minimize occupational exposures. The employer must prepare
  an exposure determination that contains a list
  of job classifications in which all workers have
  occupational exposure and a list of job classifications in which some workers have occupational exposure, along with a list of the tasks
  and procedures performed by those workers
  that result in their exposure.
- Employers must update the plan annually to reflect changes in tasks, procedures, and positions that affect occupational exposure, and also technological changes that eliminate or reduce occupational exposure. In addition, employers must annually document in the plan that they have considered and begun using appropriate, commercially-available effective safer medical devices designed to eliminate or minimize occupational exposure. Employers must also document that they have solicited input from frontline workers in identifying, evaluating, and selecting effective engineering and work practice controls.

- Implement the use of universal precautions (treating all human blood and OPIM as if known to be infectious for bloodborne pathogens).
- Identify and use engineering controls. These
  are devices that isolate or remove the bloodborne pathogens hazard from the workplace.
  They include sharps disposal containers, selfsheathing needles, and safer medical devices,
  such as sharps with engineered sharps-injury
  protection and needleless systems.
- Identify and ensure the use of work practice controls. These are practices that reduce the possibility of exposure by changing the way a task is performed, such as appropriate practices for handling and disposing of contaminated sharps, handling specimens, handling laundry, and cleaning contaminated surfaces and items.
- Provide personal protective equipment (PPE), such as gloves, gowns, eye protection, and masks. Employers must clean, repair, and replace this equipment as needed. Provision, maintenance, repair and replacement are at no cost to the worker.
- Make available hepatitis B vaccinations to all workers with occupational exposure. This vaccination must be offered after the worker has received the required bloodborne pathogens training and within 10 days of initial assignment to a job with occupational exposure.
- Make available post-exposure evaluation and follow-up to any occupationally exposed worker who experiences an exposure incident. An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM. This evaluation and follow-up must be at no cost to the worker and includes documenting the route(s) of exposure and the circumstances

under which the exposure incident occurred; identifying and testing the source individual for HBV and HIV infectivity, if the source individual consents or the law does not require consent; collecting and testing the exposed worker's blood, if the worker consents; offering post-exposure prophylaxis; offering counseling; and evaluating reported illnesses. The healthcare professional will provide a limited written opinion to the employer and all diagnoses must remain confidential.

- Use labels and signs to communicate hazards. Warning labels must be affixed to containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or OPIM; other containers used to store, transport, or ship blood or OPIM; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry, except as provided in the standard. Facilities may use red bags or red containers instead of labels. In HIV and HBV research laboratories and production facilities, signs must be posted at all access doors when OPIM or infected animals are present in the work area or containment module.
- Provide information and training to workers.
   Employers must ensure that their workers receive regular training that covers all elements of the standard including, but not limited to: information on bloodborne pathogens and diseases, methods used to control occupational

- exposure, hepatitis B vaccine, and medical evaluation and post-exposure follow-up procedures. Employers must offer this training on initial assignment, at least annually thereafter, and when new or modified tasks or procedures affect a worker's occupational exposure. Also, HIV and HBV laboratory and production facility workers must receive specialized initial training, in addition to the training provided to all workers with occupational exposure. Workers must have the opportunity to ask the trainer questions. Also, training must be presented at an educational level and in a language that workers understand.
- Maintain worker medical and training records.
   The employer also must maintain a sharps injury log, unless it is exempt under Part 1904 -- Recording and Reporting Occupational Injuries and Illnesses, in Title 29 of the Code of Federal Regulations.

#### Additional Information

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## Personal Protective Equipment (PPE) Reduces Exposure to Bloodborne Pathogens

OSHA's Bloodborne Pathogens standard (29 CFR 1910.1030) requires employers to protect workers who are occupationally exposed to blood and other potentially infectious materials (OPIM), as defined in the standard. That is, the standard protects workers who can reasonably be anticipated to come into contact with blood or OPIM as a result of doing their job duties.

One way the employer can protect workers against exposure to bloodborne pathogens, such as hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV), the virus that causes AIDS, is by providing and ensuring they use personal protective equipment, or PPE. Wearing appropriate PPE can significantly reduce risk, since it acts as a barrier against exposure. Employers are required to provide, clean, repair, and replace this equipment as needed, and at no cost to workers.

## **Selecting Personal Protective Equipment**

Personal protective equipment may include gloves, gowns, laboratory coats, face shields or masks, eye protection, pocket masks, and other protective gear. The PPE selected must be appropriate for the task. This means the level and type of protection must fit the expected exposure. For example, gloves may be the only PPE needed for a laboratory technician who is drawing blood. However, a pathologist conducting an autopsy would need much more protective clothing because of the different types of exposure (e.g., splashes, sprays) and the increased amount of blood and OPIM that are encountered. PPE must be readily accessible to workers and available in appropriate sizes.

If it can be reasonably expected that a worker could have hand contact with blood, OPIM, or contaminated surfaces or items, the employer must ensure that the worker wears gloves. Singleuse gloves cannot be washed or decontaminated for reuse. Utility gloves may be decontaminated if their ability to provide an effective barrier is not compromised. They should be replaced when

they show signs of cracking, peeling, tearing, puncturing, or deteriorating. Non-latex gloves, glove liners, powderless gloves or similar alternatives must be provided if workers are allergic to the gloves normally provided.

Gloves are required for all phlebotomies outside of volunteer blood donation centers. If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary, then the employer is required to periodically re-evaluate this policy; make gloves available for workers who want to use them; and cannot discourage their use. In addition, employers must ensure that workers in volunteer blood donation centers use gloves (1) when they have cuts, scratches or other breaks in their skin, (2) while they are in training, or (3) when the worker believes that hand contamination might occur.

When splashes, sprays, splatters, or droplets of blood or OPIM pose a hazard to the eyes, nose or mouth, then masks in conjunction with eye protection (such as goggles or glasses with solid side shields) or chin-length face shields must be worn. Protection against exposure to the body is provided by protective clothing, such as gowns, aprons, lab coats, and similar garments. Surgical caps or hoods, and shoe covers or boots are needed when gross contamination is expected, such as during orthopedic surgery or autopsies.

In HIV and HBV research laboratories and production facilities, laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing must be used in work areas and animal rooms. Also, protective clothing must not be worn outside of the work area and must be decontaminated before being laundered.

## **Exception to Use of Personal Protective Equipment**

A worker may choose, temporarily and briefly, under rare and extraordinary circumstances, to forego use of personal protective equipment. It must be the worker's professional judgment that using the personal protective equipment would prevent the delivery of health care or public safety services or would pose an increased hazard to the safety of the worker or coworker. When such a situation occurs, the employer is required to investigate and document the circumstances to determine if there is a way to avoid it from happening again in the future. Employers and workers should be aware that this is not a blanket exemption to the requirement to use PPE. OSHA expects that this will be an extremely rare occurrence.

## **Decontaminating and Disposing of Personal Protective Equipment**

Employers must ensure that workers remove personal protective equipment before leaving the

work area. If a garment is penetrated by blood or OPIM, it must be removed immediately or as soon as feasible. Once PPE is removed, it must be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal. In addition, employers must ensure that workers wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

### **Additional Information**

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Occupational Safety and Health Administration www.osha.gov 1-800-321-6742

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## **Protecting Yourself When Handling Contaminated Sharps**

Sharps are objects that can penetrate a worker's skin, such as needles, scalpels, broken glass, capillary tubes and the exposed ends of dental wires. If blood or other potentially infectious materials (OPIM), as defined in the OSHA Bloodborne Pathogens standard (29 CFR 1910.1030), are present or may be present on the sharp, it is a contaminated sharp and appropriate personal protective equipment must be worn.

A needlestick or a cut from a contaminated sharp can result in a worker being infected with human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and other bloodborne pathogens. The standard specifies measures to reduce these types of injuries and the risk of infection.

Careful handling of contaminated sharps can prevent injury and reduce the risk of infection. Employers must ensure that workers follow these work practices to decrease the workers' chances of contracting bloodborne diseases.

#### **Safer Medical Devices**

Employers are required to consider and use safer medical devices, wherever possible. These devices include those that are needleless or have built-in protection to guard workers against contact with the contaminated sharp. In addition, employers must ask non-managerial patient care workers who could be exposed to contaminated sharps injuries for their input in identifying, evaluating and selecting effective work practice and engineering controls, including safer medical devices. The employer must document consideration and implementation of these devices, and the solicitation of worker input, in the Exposure Control Plan.

#### **Prompt Disposal**

Employers must also ensure that contaminated sharps are disposed of in sharps disposal containers immediately or as soon as feasible after use. Sharps disposal containers must be readily accessible and located as close as feasible to the area where sharps will be used. In some cases, they may be placed on carts to prevent patients, such

as psychiatric patients or children, from accessing the sharps. Containers also must be available wherever sharps may be found, such as in laundries.

Contaminated sharps must never be sheared or broken. Recapping, bending, or removing needles is permissible only if there is no feasible alternative or if such actions are required for a specific medical or dental procedure. If recapping, bending, or removal is necessary, employers must ensure that workers use either a mechanical device or a one-handed technique. The cap must not be held in one hand while guiding the sharp into it or placing it over the sharp. A one-handed "scoop" technique uses the needle itself to pick up the cap, and then the cap is pushed against a hard surface to ensure a tight fit onto the device. Also, the cap may be held with tongs or forceps and placed over the needle. Contaminated broken glass must not be picked up by hand, but must be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

### **Sharps Containers**

Containers for contaminated sharps must be puncture-resistant. The sides and the bottom must be leakproof. They must be appropriately labeled or color-coded red to warn everyone that the contents are hazardous. Containers for disposable sharps must be closable (that is, have a lid, flap, door, or other means of closing the container), and they must be kept upright to keep the sharps and any liquids from spilling out of the container.

The containers must be replaced routinely and not be overfilled, which can increase the risk of needlesticks or cuts. Sharps disposal containers that are reusable must not be opened, emptied, or cleaned manually or in any other manner that would expose workers to the risk of sharps injury. Employers also must ensure that reusable sharps that are contaminated are not stored or processed in a manner that requires workers to reach by hand into the containers where these sharps have been placed.

## **Handling Containers**

Before sharps disposal containers are removed or replaced, they must be closed to prevent spilling the contents. If there is a chance of leakage from the disposal container, the employer must ensure that it is placed in a secondary container that is closable, appropriately labeled or color-coded red, and constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping.

### **Additional Information**

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## **Securing Medical Catheters**

#### What are medical catheters?

Medical catheters are tubes used in healthcare to deliver intravenous fluids and medications or to drain body fluids. Examples include vascular access devices and chest drainage tubes.

## What hazards do medical catheters pose to healthcare workers?

Catheters used for vascular access must be inserted with a needle. Inserting a catheter exposes the healthcare worker to the risk of a needlestick. Sharps with engineered sharps injury protection (SESIPs) reduce workers' risk of needlesticks, but, unless they are effectively secured, intravenous catheters may migrate or become dislodged and require reinsertion.

Some vascular access devices and chest drainage tubes have traditionally been secured with sutures. This process directly exposes the health-care worker to the risk of a needlestick injury from the suture needle. Therefore, for healthcare workers using medical catheters, the process of suturing these devices presents needlestick hazards.

#### Who is at risk?

Healthcare workers who insert and suture in place medical catheters such as vascular devices and chest tubes face needlestick risks. These workers may include physicians, nurses, physician assistants, and emergency responders.

## What are the options for securing medical catheters?

Generally, OSHA does not require the use of specific engineering controls or work practices. OSHA relies on the professional judgment of healthcare workers who insert and secure catheters to assess each situation and determine the appropriate methods and work practices to secure catheters and minimize risk of dislodgment.

Healthcare workers have customarily used tape or sutures to secure medical catheters. Typically, they use sutures for central venous catheters, arterial catheters, and chest tubes. Engineering controls, such as improved adhesive products and securement devices, may decrease or eliminate the need for sutures and thus directly reduce needlestick risk.

For catheters that do not require sutures for securement, such as peripheral intravenous catheters, healthcare workers typically use tape. Careful and thorough catheter securement is essential since ineffective securement may result in catheter dislodgment. A variety of tapes, adhesive products, and catheter securement devices are available. Appropriate products and effective work practices are essential to provide increased catheter stability. Such products and work practices may reduce catheter dislodgment and the necessity of reinsertion with its associated needlestick risk.

## What OSHA requirements cover medical catheters?

OSHA's bloodborne pathogens standard (29 CFR 1910.1030) requires that employers of workers with occupational exposure to blood or other potentially infectious materials annually consider and implement appropriate, available, and effective safer medical devices designed to eliminate or minimize that exposure [See 29 CFR 1910.1030 (c)(1)(iv)(B)]. Engineering controls that reduce the potential for needlesticks by eliminating the need to suture medical catheters in place are one option for healthcare employers to consider. As part of their annual review of methods to reduce needlesticks, employers must review options for securing medical catheters and consider appropriate engineering and work practice controls.

In this review, employers must include the input of non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls [See 29 CFR 1910.1030(c)(1)(v)].

## **How can I get more information?**

Information on needlestick hazards, including the full text of OSHA's bloodborne pathogens

standard, is available on OSHA's website at http://www.osha.gov/SLTC/bloodbornepathogens/index.html

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