

Checklist for exposure prevention

This checklist was reprinted and adapted with permission from *Advances in Exposure Prevention* (1999: 4[3]:33-34), published by the International Health Care Worker Safety Center. For additional information including subscriptions and ordering, see **Needlestick and sharps prevention, Resources: *Advances in Exposure Prevention*.**

Would you like to know how far your hospital or facility has progressed in preventing occupational exposures to bloodborne pathogens? Use the checklist below to gauge how your organization is doing in some key areas.

A general principle to stress in trying to reduce occupational exposures is the elimination of unnecessary needles and sharps wherever possible. Needles used to connect IV lines or to access IV ports are the primary source for unnecessary needles, but other areas to check include the OR, where blunt suture needles may be substituted for sharp ones, and clinical labs, where needles and syringes are sometimes used as lab tools. Also, injuries related to blood drawing and IV catheter placement have the highest risk of pathogen transmission. Preventing these injuries should be a priority.

Check whether your hospital has a needlestick prevention program or committee—a good indicator of its commitment to safety. The major task of such a committee should be collecting and reviewing needlestick and blood exposure surveillance data, including types of exposures, job classifications of exposed workers, procedures involved, complete descriptions of devices involved, and whether devices were safety or conventional designs. The needlestick prevention program should include a component for selecting and evaluating safer products, and ought to have a role in the facility's product evaluation committee.

Blood-drawing

- Has your hospital or facility implemented blood-drawing devices with integrated safety features designed to prevent percutaneous injuries? Such devices can include:
 - shielded or self-blunting needles for vacuum tube phlebotomy;
 - shielded, retracting or self-blunting butterfly-type needles;
 - syringes with a cylindrical sheath that shields needles when injecting blood into tubes; and
 - blood gas syringes with a hinged needle shield that can be put in place over the needle using a hands-free technique.
- Have all unnecessary needles been eliminated from use, including needles used for drawing blood from intravenous, arterial, and central lines, which can be replaced by needleless or blunt cannula devices (see below)?
- Does your facility use automatically retracting finger/heelstick lancets in place of manual lancets or non-retracting spring-loaded lancets?

- Has your facility switched from glass to plastic micro-bore capillary tubes for measuring hematocrit (or to mylar-wrapped glass capillary tubes, or alternative methods of measuring hematocrit that do not require capillary tubes)? See Joint Safety Advisory issued by FDA, OSHA and CDC, 2/99.
- Has your facility replaced glass blood collection vacuum tubes with plastic tubes?
- Does your facility provide puncture-resistant disposal containers within arm's reach of blood-drawing personnel for all phlebotomy procedures?
- Have blood-drawing personnel been advised not to manually recap or remove needles from blood-drawing devices?
- Has the practice of changing needles for blood culture phlebotomy been discontinued in order to avoid the hazard of manually removing a blood-filled needle from the syringe?
- Has the practice of injecting blood through a stopper into a vacuum tube using an exposed needle been discontinued?
(Methods of drawing blood directly into vacuum tubes or other specimen containers should be preferentially employed; alternatively, safety syringes with a cylindrical needle shield locked in place over the needle, which allow a vacuum tube to be inserted into the shield during blood injection, will reduce needlestick risk and reduce risk of blood splatter from dislodged tube stoppers.)
- Have blood-drawing personnel been advised to wear procedure gloves and not to cut the tip off the index finger (or any other part) of gloves, since it increases the risk of blood exposure?

IV catheter placement:

- Has your facility implemented safety IV catheters?
(In addition to implementing protective IV catheters, which provide a protective shield for the stylet before or during its withdrawal from the catheter procedure, gloves should be worn during the insertion of IV catheters, and a puncture-resistant sharps disposal container should be located within arm's reach of health care personnel for all IV catheter placements.)

IV infusion systems:

- Has your facility converted to needleless or recessed needle IV systems?
(An FDA Safety Alert warned in 1992 of the dangers associated with "piggyback" or "intermittent IV" line connections. Since then, almost two-thirds of U.S. hospitals have switched to needleless or recessed needle systems. But beware: in some hospitals

both systems—needleless/recessed needle and needle-based—are sometimes provided side by side. We urge hospitals to eliminate needles used to access IV ports.)

Injection equipment

- For syringes used for subcutaneous or intramuscular (IM) injections, has your facility converted to devices that have integrated safety features such as sliding sleeves, retracting needles, or hinged caps, or to a needleless injection system?

Surgery

- Are blunt suture needles, stapling devices, adhesive strips or tissue adhesives used whenever clinically feasible in order to reduce the use of sharp suture needles?
- Are scalpel blades with safety features, such as round-tipped scalpel blades and retracting-blade and shielded-blade scalpels, used?
- Are alternative cutting methods used when appropriate, such as blunt electrocautery devices and laser devices?
- Is manual tissue retraction avoided by using mechanical retraction devices?
- Has all equipment that is unnecessarily sharp been eliminated?
(Example: towel clips have been identified as a cause of injury in the operating room, yet blunt towel clips are available that do not cause injury and are adequate for securing surgical towels and drapes. Other examples of devices that do not always need to have sharp points include surgical scissors, surgical wire, and pick-ups.)
- Is double gloving employed in the surgical setting?
- Do circulating nurses, as well as personnel close to the surgical site, wear eye protection such as goggles or faceshields that have a seal above the eyes to prevent fluid from running down into the eyes?

Body Fluid Contact

- Does your facility have an adequate supply of the following personal protective equipment:
 - gloves?
 - liquid-resistant gowns with high neck and long sleeves with tight cuffs (note: cotton lab coats provide *no* protection)?
 - face and eye protection (masks and goggles with seals above eyes)?
- Are goggles and faceshields with seals above eyes worn for extubations, wound irrigations, manipulation of equipment containing blood under pressure, and for any other procedure with potential for blood or body fluids squirting/splashing/spraying?

- Does equipment that pumps blood under pressure have positive-locking junctions between connecting components, and pressure sensors linked to an alarm or pump cut-off to prevent high-pressure rupture of tubing?
- Are specimen and body fluid containers, including vacuum-evacuated blood tubes, made of plastic and do they have tight positive-locking seals?

Waste Disposal

- Does your facility maintain disposal containers that are:
 - puncture-resistant?
 - close to point-of-use?
 - replaced before full?
 - the appropriate size for devices placed in them?And do the disposal containers have:
 - visible opening, below eye level, if wall-mounted?
 - unobstructed opening that allows devices to drop in easily?

Training

- Are all at-risk employees given training once a year in Universal Precautions, safe work practices, and employers' obligations under the OSHA Bloodborne Pathogens Standard?
- Does your facility comply with Universal Precautions?
- Does your facility provide regular inservices on the safe handling of needles and sharp items?

Does your facility

- Have a written exposure control plan? (It should: include a list of all jobs and tasks with potential for bloodborne pathogen exposure; state how the employer will implement the standard; be accessible to workers; and be reviewed and updated at least annually.)
- Provide hepatitis B vaccine free to all at-risk employees?
- Provide free post-exposure follow-up, including employee and source patient testing for HBV, HCV, HIV, and prophylaxis treatment when necessary?
- Conduct surveillance of occupational exposures to bloodborne pathogens? (For information on the EPINet surveillance system, visit the Becton Dickinson web site at www.bd.com.)