

OSHA COMPLIANCE IN THE MEDICAL PRACTICE

Presented by

Terrence A. Knight

July 10, 2003



Medical Management Associates, Inc.
Leading Edge Consulting for Physicians Since 1982

Occupational Safety and Health Act of 1970 (OSHA)

- Enacted on December 29, 1970 during the 91st Congress
- Applies to all agencies of the Executive Branch except military personnel



Occupational Safety and Health Act of 1970 (OSHA)

- Mission: “To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting the States in their efforts to assure safe and healthful working conditions; by providing research, information, education and training in the field of occupational safety and health; and for other purposes.”



Occupational Safety and Health Act of 1970 (OSHA)

Coverage, in general, extends to all employers and their employees,

Exceptions:

- Self-employed persons,
- Working conditions regulated under Federal statutes,
- State & local government employees,
 - 26 states cover both public and private sector
 - Three (3) state OSHA programs cover only public (NY, Connecticut and New Jersey)
 - 23 states have only the Federal OSHA program for private and may not have public employee coverage.



General Duty Clause

The General Duty Clause covers employee safety in the absence of other standards.

- “Each employer shall furnish to each of his employees employment and a place of employment, which are free from recognized hazards that are causing or likely to cause death or physical harm to his employees.”

(Examples: TB, Ergonomics, Workplace Violence)



Medical Industry Standards

- The two primary standards that pertain to the medical industry are 29 CFR 1910.1030, Bloodborne Pathogens (BBP) and 29 CFR 1910.1200, Hazard Communication (HAZCOM).
- These standards are published in the Federal Register and can be downloaded from the Internet, copied at a public library or ordered from the Government Printing Office.
- While there is no formal standard regarding exposure to Tuberculosis and related prevention measures, there needs to be a plan and policy that sets forth guidelines to prevent unreasonable exposure.

CFR = Code of Federal Regulations



Healthcare Industry Top Ten Violations:

- Bloodborne Pathogens
- Hazard Communication
- Electrical, Wiring Design (Extension Cord Violations)
- Control of Hazardous Energy/Lockout/Tagout
- Personal Protective Equipment, General Requirements
- Log & Summary of Occupational Injuries and Illnesses
- Electrical Systems Design, General Requirements
- Machines (Machine guarding)
- Medical Services, First Aid (Eyewash stations)
- Electrical, Wiring Design (Improper Grounding)



CONTENTS OF THE TRAINING PROGRAM

The training program contains:

- An accessible copy of the text of the OSHA standard on Occupational Exposure to Bloodborne Pathogens and an explanation of its contents.
- A general explanation of the epidemiology and symptoms of bloodborne diseases.
- An explanation of the modes of transmission of bloodborne pathogens.
- An explanation of the exposure control plan and the means by which the employee can obtain a copy of the written plan.
- An explanation of the appropriate methods for recognizing tasks/activities that may involve exposure to blood and other potentially infectious materials.
- An explanation of the use and limitations of methods that will prevent or reduce exposure, i.e., engineering controls, work practice, and personal protective equipment.
- Information on the types, proper uses, location, removal, handling, decontamination, and disposal of personal protective equipment.



CONTENTS OF THE TRAINING PROGRAM

The training program contains:

- An explanation of the basis for selection of personal protective equipment.
- Explanation of emergency procedures.
- Information on the HBV vaccine, its efficacy, safety, method of administration, benefits of vaccination, and provision at no cost to the employee.
- Information on the appropriate actions to take and persons to contact in an emergency involving blood and other potentially infectious materials.
- An explanation of the procedure to follow if an exposure incident occurs, the method of reporting, and the medical follow-up that is available.
- Information on the post-exposure evaluation and follow-up that is provided following exposure.
- An explanation of the signs/symbols and color-coding of biohazards.
- A question and answer session between the trainer and employee(s).



Basic Elements of the Bloodborne Pathogens Exposure Control Plan

- Identification of employees who are at risk, i.e., “exposure determination”,
- Identification of tasks that offer exposure,
- Observation of Standard Precautions (formerly “*Universal*”),
- Use of Personal Protective Equipment (PPE),
- Proper housekeeping protocols,
- Hepatitis B vaccination availability or declination by employee,
- Use of engineering controls and work practice controls to isolate or remove BBP hazards, including use of SESIP and needleless systems
- Regulated waste disposal,
- Documented training and recordkeeping,
- Accessible copy of the BBP standard from 29 CFR 1910.1030.



Bloodborne Diseases

Bloodborne diseases include:

- Non-A Hepatitis
- Non-B Hepatitis
- Hepatitis B
- Hepatitis C
- Delta Hepatitis
- Syphilis
- Malaria
- Human Immunodeficiency Virus (HIV)

The most significant are hepatitis B (HBV) hepatitis C (HCV) and HIV.



Hepatitis B (HBV)

Hepatitis means “inflammation of the liver.”

HBV is the major infectious bloodborne hazard healthcare workers face each year.

- HBV infects 8,700 workers a year, resulting in 400 hospitalizations and 200 deaths among health care workers (6,000 all cases)
- HBV easily transmitted, but equally preventable
- Total # chronically infected with HBV estimated at 1.25 million

If infected with HBV, symptoms may be flu-like or the individual may be asymptomatic not even realizing the infection (50% of cases)

Blood, saliva and other body fluids may be infectious and the virus may be spread to sexual partners and even unborn infants.



Hepatitis C (HCV)

- Approximately 4,000,000 people are infected with HCV
- 10,000 die annually with HCV related liver disease
- No vaccine exists for Hepatitis C
- 85% of HCV cases are chronic as compared to 10% of HBV cases leading to hepatitis, cirrhosis and hepatocellular carcinoma
- 75% of HCV cases are asymptomatic

HIV

HIV attacks the body's immune system, causing the disease known as AIDS or *Acquired Immune Deficiency Syndrome*.

A person infected with HIV....

- May carry the virus without developing the symptoms for several years
- Will eventually develop AIDS
- May suffer flu-like symptoms, fever, diarrhea and fatigue
- May develop AIDS-related illnesses including neurological problems, cancer or hepatitis
- Per CDC 1996 statistics, of the 52 cases documented 45 were from needlesticks or cuts / as many as 900,000 in U.S. infected



Workplace Transmission

HBV, HCV & HIV may be present in:

- Most body fluids
- Unfixed tissue or organs other than intact skin from living or dead humans
- Cell or tissue cultures that contain HIV, HBV or HCV
- Organ cultures, culture media or similar solutions
- Blood, organs and tissues from experimental animals infected with HIV, HCV or HBV



Means of Transmission

Bloodborne pathogens may enter your body and infect you via:

- Accidental injury by a sharp object including:
 - Needles (80% of exposures) (800,000 needlesticks per year in U.S. / ~16,000 of these may be HIV contaminated)
 - Scalpels
 - Broken glass
 - Exposed ends of dental wires
 - Anything that can pierce, puncture or cut your skin
- Open cuts, nicks and skin abrasions, even dermatitis and acne as well as the mucous membranes of your mouth, eyes or nose
- Indirect transmission by touching a contaminated object or work surfaces and transferring the material to the mouth, eyes, nose or open skin



Needlesticks

The majority of needlesticks occur when healthcare workers:

- Dispose of needles
- Administer Injections
- Draw Blood
- Recap Needles (not allowed except via a one-handed or mechanical technique)
- Handle trash and dirty linens.

70% of cases occur after use and before disposal

Estimated that 83% of needlesticks can be prevented through safer needle devices



Standard (“Universal”) Precautions

Since individuals with HBV HCV or HIV can be asymptomatic or may only exhibit flu-like symptoms, it is mandatory that all healthcare workers treat all human blood and certain human body fluids as if they were known to be infected with HIV, HBV, HCV or other bloodborne pathogens.



Reducing Your Risk

Five major tactics to reduce your risk of exposure to BBP on the job:

- Engineering Controls
- Work Practice Controls
- Personal Protective Equipment
- Housekeeping
- Hepatitis B Vaccine

None of the above is 100% effective. They must be used together --
Like five protective barriers against infection.



Reducing Your Risk

Engineering Controls

Physical or mechanical systems designed to eliminate hazards at their source such as:

- Self-sheathing needles or other Sharps w/ Engineered Sharps Injury Protection (SESIP)
- Needleless Systems
- Sharps disposal containers
- Biosafety cabinets
- Autoclaves



Reducing Your Risk

Work Practice Controls

Specific procedures to follow on the job to reduce exposure:

- Avoid Needlesticks.
- Do not bend, hand-recap, shear or break needles/sharps.
- Recap or remove contaminated needles from disposable syringes only when medically necessary. To recap, use a mechanical device or a one-handed technique.
- Place contaminated sharps in a puncture resistant, leak-proof container immediately after use.
- Report any sharps containers that are mounted too high or are not easily accessible or those that may allow spillage if overturned.



Reducing Your Risk

Work Practice Controls (Continued)

Handwashing:

- Prevents the transfer of contaminated matter to other areas of the body or other surfaces that you may contact later.
- Every time you remove gloves, the hands must be washed as soon as possible with non-abrasive soap and running water.
- If skin or mucous membranes come in direct contact with blood, wash or flush with water A.S.A.P.
- If handwashing facilities are not readily available, an antiseptic hand cleanser or antiseptic towelettes can be used, but only as a temporary measure. You must still wash with soap and water A.S.A.P.
- Do not use Clorox to wash hands...may cause abrasive reaction.



Reducing Your Risk

Work Practice Controls (Continued)

Self-protective Controls/Personal Hygiene:

- When performing procedures involving blood, minimize splashing, spraying, splattering and generation of droplets, e.g., cover a stopper from a specimen tube with gauze to reduce the chance of splatter.
- Do not eat, drink, smoke, apply cosmetics or lip balms, or handle contact lenses in potential exposure situations.
- Avoid petroleum-based lubricants that may eat through latex gloves.
- Never mouth pipette blood or suction blood or other infectious materials.
- Don't keep food and drinks in refrigerators, freezers, cabinets or on shelves, countertops or benchtops where blood is present.



Reducing Your Risk

Needlestick Safety and Prevention Act

Final version released on January 18, 2001, effective date of April 18, 2001.

Includes the following changes:

- Revised definitions of Engineering Controls to address and include:
 - Needleless Systems
 - Sharps with Engineered Sharps Injury Protection
- Requires Employers to review and update annually the Exposure Control Plan to:
 - Select safer needle devices and they become available,
 - Involve non-managerial employees in the identification and selection process, and
 - Document the process to request, review and select these devices.
- Employers must establish and maintain a sharps injury log noting all “percutaneous injuries from contaminated sharps” including:
 - Type/brand of device involved in incident,
 - Department or work area where incident occurred, and
 - Explanation of how incident occurred.



Reducing Your Risk

Personal Protective Equipment (PPE)

Equipment that protects your skin, mucous membranes, work clothes, street clothes and undergarments from contact with infectious materials including

- Gloves
- Masks
- Gowns
- Aprons
- Lab coats
- Faceshields
- Protective Eyewear
- Mouth pieces
- Resuscitation Bags or other ventilation devices (Avoid unprotected mouth-to-mouth resuscitation)

The type of PPE appropriate for a given task depends on the degree of exposure anticipated.



Reducing Your Risk

Personal Protective Equipment (PPE) (Continued)

If your job requires you to be exposed to BBP, your employer will:

- Provide appropriate PPE at no cost to you
- Clean, launder, repair, replace or dispose of PPE at no cost to you

General Rules on PPE:

- The employee must be trained to use equipment properly
- PPE must be appropriate for the task
- PPE must be used each time a task is performed
- The PPE must be free of physical flaws that could compromise safety
- Gloves must fit properly
- If PPE has been compromised by blood during use, remove it as soon as feasible
- Before leaving the work area, remove all PPE and place it in an appropriate container for washing, decontamination or disposal



Reducing Your Risk

Personal Protective Equipment (PPE) (Continued)

Exception to the Rule:

If the employee believes the use of PPE would prevent proper delivery of healthcare or jeopardize his/her safety or a co-worker's, the use of the PPE may be temporarily and briefly abandoned in an emergency.

After the incident, the employer must investigate the circumstances to determine if such a situation could be prevented in the future. The incident should be documented.

In all other cases, wearing PPE is not only the best option - it's the only option!



Reducing Your Risk

Personal Protective Equipment (PPE) (Continued)

- Gloves are the most widely used form of PPE either the Latex or nylon variety for medical procedures and patient care or heavy duty utility gloves for housekeeping duties.

General Rules:

- They must be worn when you anticipate hand contact with blood, other infectious materials, mucous membranes or non-intact skin.
- Hypoallergenic gloves will be provided in cases of allergic reactions to latex or nylon.
- Since gloves can be torn or punctured by sharps, the employee should bandage any cuts before being gloved.
- Replace disposable single-use gloves and discard after use. **NEVER** wash or decontaminate!
- Utility gloves may be decontaminated and reused unless damaged.



Reducing Your Risk

Removal of Gloves

A safe procedure must be followed for glove removal, being careful that no substances from the soiled gloves contact your hands.

General Rules:

- With both hands gloved, peel one glove off from the top to bottom and hold it in the gloved hand.
- With the exposed hand, peel the second glove from the inside, tucking the first glove inside the second.
- Dispose of the entire bundle properly.
- Remove gloves when they become contaminated or damaged or before you leave the work area.
- Wash hands thoroughly.



Reducing Your Risk

Good Housekeeping

- Protects every healthcare worker present in the work area
- It is every worker's responsibility!

Specific housekeeping rules include the following elements:

- Cleaning and decontamination at the end of each work shift, unless a spill occurs at which time the appropriate decontamination procedure is taken
- Use of protective coverings (foil or plastic wrap) on equipment or surfaces at the end of a shift
- Use of tongs, forceps or a brush and dust pan to pick up broken glass
- Placement of contaminated sharps and infectious wastes in designated sharps containers that are labeled and easily accessible
- Handle contaminated laundry as little as possible with minimal agitation. Place contaminated laundry in labeled leak-proof bags without sorting or rinsing
- Use warning labels bearing the biohazard sign indicating the presence or location of potentially contaminated materials or equipment (fluorescent orange-red color)



Reducing Your Risk

HBV Vaccination

- If an employee has risk of exposure, the employer must make the Hepatitis B vaccination available at no cost within 10 days of hire.
- The vaccine is administered by three vaccinations over a six-month period.
- Vaccines are safe and cannot be infected with HIV or other BBP.
- The complete series of HBV vaccinations is 85 to 97 percent effective at protecting the employee from getting the disease or becoming a carrier for nine years or longer.
- If an employee chooses to decline the vaccine, a waiver must be signed by the employee and kept on file.
- In 1985, 12,000 cases of HBV were reported. By 1995 there were only 800 reported cases, primarily due to the HBV vaccine.



Post-Exposure Evaluation

Post-exposure evaluation and follow-up must include:

- Documentation of the route of exposure,
- Identification, documentation and testing of the source,
 - Consent must be first obtained from patient
- Collection/testing of the employee's blood for HBV/HIV,
- Post-exposure prophylaxis,
- Counseling and
- Evaluation of reported illnesses.

Vaccinations, post-exposure evaluations and follow-up must be at no cost to the employee.



BBP Training

- Training must be provided within ten (10) days of hiring and annually thereafter.
- Shared responsibility for contractors and temporary personnel.
- Training records must include:
 - Date of training
 - Contents or summary of training session
 - Names and qualifications of trainer(s)
 - Names and job titles of all trainees



BBP Recordkeeping

Medical Records

According to 29 CFR 1910.1020, employers shall establish and maintain an accurate record for each employee with occupational exposure containing:

- Employee's name and social security number
- Employee's Hepatitis B vaccination status, date administered, etc.
- Results of all examinations, medical testing, post-exposure evaluation and follow-up procedures
- A copy of the healthcare professional's written opinion
- A copy of any specific information provided to the healthcare professional

Medical and all health-related records must be kept for the duration of employment plus thirty (30) years



Key Elements of Hazard Communication Plan

- Appointment of a coordinator within the practice for the HAZCOM program,
- Maintaining complete inventory of hazardous chemicals on-site,
- Maintaining Material Safety Data Sheets (MSDS) for each chemical stored on-site,
- Proper labeling of hazardous chemicals,
- Proper information, documentation and training of employees,
- Proper exchange of information to outside contractors of chemical hazards,
- Accessible copy of the standard from 29 CFR 1910.1200 and written program to employees.



Key Elements of Tuberculosis Exposure Plan

- Identification of individual responsible for TB control,
- Appropriate TB training applicable to jobs performed,
- TB screening and prevention program for all employees,
- RISK assessment of TB transmission,
- Documentation of TB control practices,
- Policies for early detection of infectious persons,
- Isolation of infectious inpatients until clinically improved,
- Engineering controls (i.e., altered ventilation),
- Special precautions with cough-inducing procedures,
- Respiratory protection where exposure to TB is likely (i.e., use of NIOSH approved respirator).



The OSHA Inspection

Inspections may be triggered by:

- Imminent Danger
- Fatal Accidents
- Programmed Inspections
- Employee Complaints (most common)
- Follow-up Inspections



The OSHA Inspection

At a minimum, OSHA will always review the following:

- OSHA 200 Log (if the practice has >10 employees)
- Bloodborne Pathogens Written Program
- HAZCOM Written Program
- TB Written Plan, if applicable
- Other records as appropriate
- Other health and safety issues related to physical facility (fire safety / means of egress)



Elements of The OSHA Inspection

- Opening conference and review of OSHA 200 Log, if your practice has more than ten (10) employees,
- Review of BBP Program , HAZCOM and TB Program (if applicable),
- Review of training documentation,
- Walk-through of the office to inspect the work areas,
- Interview of selected employees, especially the new employees to verify training regimens,
- If inspection is due to a complaint, read the complaint before a walk-through, show the officer just the area that relates to the complaint and do not volunteer information,
- Closing conference to discuss findings and receive clarification of proposed steps to take.

If the visit is random, be cooperative, friendly and do not hesitate to ask questions.

Do not bring your attorney into an OSHA visit or to an appeal meeting. Consult with an attorney for guidance, but not in the inspector's presence. An attorney can be called in during later stages, if necessary.



OSHA Citations and Fines

An inspection is an evaluation of your program and may result in citations and fines if violations are discovered. States have the right to use their own penalty system.

Violations:

Willful	\$70,000 maximum \$25,000 minimum
Serious	\$ 7,000
Less than serious	\$ 1,000 - \$7,000
Repeat	\$ 7,000
de Minimus	Technical violation/no fine

