Barnes-Jewish Hospital / Washington University School of Medicine
Sharps Safety Education Program
Course Outline 2014

Course Coordinators:
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GOALS AND OBJECTIVES

Goal: to educate medical students beginning clinical clerkships about job related risks of exposure to bloodborne pathogens (BBP); didactic sessions and interactive workshops will focus on strategies to prevent needlestick injuries and body substance exposures.

Overall Objectives:
A. Increase knowledge of infection prevention recommendations and risks of exposure to bloodborne pathogens (BBP) from common procedures.
   1. Epidemiology of BBP (HBV, HCV, HIV)
   2. Modes of transmission
   3. Use of personal protective equipment (PPE)
   4. Procedures to follow to prevent/minimize exposures

B. Provide hands-on experience for performing common medical procedures with an emphasis on proper handling and disposal of sharps.
   1. Phlebotomy
   2. Blood cultures
   3. Intravenous catheter placement
   4. Arterial blood gas

C. Inform students of institutional protocol for reporting needlestick injuries, body substance exposures and post exposure prophylaxis.

Module Objectives:
A. Phlebotomy
   1. be able to describe and demonstrate appropriate technique for performing a venipuncture, including site selection
   2. identify at least 2 steps in each procedure where BBP exposures can occur
   3. identify at least 2 techniques for decreasing BBP exposure when performing venipuncture

B. Blood Cultures
   1. be able to describe and demonstrate appropriate technique for collecting blood cultures
   2. identify at least 2 steps in each procedure where BBP exposures can occur
3. identify at least 2 techniques for decreasing BBP exposure when collecting blood cultures

C. Intravenous Catheter Placement
   1. be able to describe and demonstrate appropriate technique for inserting an intravenous catheter
   2. identify at least 2 steps in each procedure where BBP exposures can occur
   3. identify at least 2 techniques for decreasing BBP exposure when inserting an intravenous catheter

D. Arterial Blood Gas
   1. be able to describe and demonstrate appropriate technique for performing an arterial blood gas
   2. identify at least 2 steps in each procedure where BBP exposures can occur
   3. identify at least 2 techniques for decreasing BBP exposure when performing an arterial blood gas

Format
A. Preclinical medical students will be divided into three groups (A-C) each with approximately [ ] students
B. Each group will rotate through three 2.5 hour blocks. The Safety Skills Lab will be one of these three blocks and will consist of 3 stations.
C. Trainers will have approximately [ ] minutes to demonstrate a procedure to a group of [ ] students. The students will then practice the procedure.
SAFETY SKILLS LABORATORY MODULE
Recommended Personal Protective Equipment (PPE)

PHLEBOTOMY
Gloves and Protective Eyewear

BLOOD CULTURE PREPARATION
Gloves and Protective Eyewear

IV THERAPY
Gloves and Protective Eyewear

ARTERIAL BLOOD GAS
Gloves and Protective Eyewear
Reminders / Things to keep in mind

Healthcare workers need to protect themselves by following guidelines for Standard Precautions and wearing personal protective equipment (PPE) appropriate for the procedure being performed. **DO NOT MIMIC BEHAVIORS OF ATTENDING PHYSICIANS IF THEY ARE NOT CONFORMING TO INFECTION PREVENTION GUIDELINES.**

**HAND HYGIENE**  
Always follow hand hygiene policies to ensure patient safety. Upon entry and exit of a patient room, in between patients, upon removal of gloves, in accordance with the existing hospital policy for all procedures, etc. (See hand hygiene policy for specifics)

**HEPATITIS B VACCINE**  
All healthcare workers should be fully vaccinated and know their antibody status.

**GUIDELINES FOR SAFE SURGICAL PROCEDURES:**  
Encourage your colleagues, students and staff to comply for everyone’s protection.

**DOUBLE GLOVING**  
Learn to double glove NOW and routinely double glove for all surgical procedures on ALL patients (many recommend your regular size gloves on inside then glove ½ size smaller on the outside; practice with different variations until you get used to it and find the right fit).

**NO TOUCH TECHNIQUES**  
Use instruments for loading, unloading, manipulating needles and sharps. NEVER use hands for manipulation of sharps. Demonstrate ability to handle needles and load and unload blades with instruments (needles, drivers, forceps, etc).

**NO TOUCH TRANSFERS**  
Use transfer basin or neutral zone to pass sharps. NEVER pass sharps pointed end first. NO THrowing sharps! NO LOOSE sharps. Hold everyone accountable for location and PROPER DISPOSAL OF SHARPS (not dropped on floor, not left on drape). Practice no touch transfers.