Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis
Factors Influencing Occupational Risk of Bloodborne Virus Infection

- Prevalence of infection among patients
- Type of exposure and type of virus
- Nature and frequency of blood exposures
Postexposure Management

- Clear policies/procedures
  - Confidentiality of exposed and source persons
  - Management of exposures
  - Posted in visible place
- Training of healthcare personnel
- Rapid access to
  - Clinical care
  - Postexposure prophylaxis (PEP)
  - Testing of source patients/exposed persons
- Injury prevention assessment
Elements of Postexposure Management

- Wound management
- Exposure reporting
- Assessment of infection risk
  - type and severity of exposure
  - bloodborne infection status of source person
- Appropriate treatment, follow-up, and counseling
Postexposure Management: Wound Care

- Clean wounds with soap and water
- Flush mucous membranes with water
- No evidence of benefit for:
  - application of antiseptics or disinfectants
  - squeezing ("milking") puncture sites
- Avoid use of bleach and other agents
Postexposure Management: Assessment of Infection Risk

• Source person
  – presence of HBsAg
  – presence of HCV antibody
  – presence of HIV antibody
Occupational HIV Exposures
Human Studies of HIV PEP Efficacy

- Study of converters vs nonconverters showed use of zidovudine (ZDV) was associated with an 81% decrease in the risk for HIV infection.
  - Limitations include a small number of cases, and that cases and controls came from different cohorts. *(Cardo et al, NEJM 1997;337:1485-90.)*
Elements of Postexposure Management: HIV

• Baseline evaluation and testing of exposed person
• Consideration of treatment
  – when to give
  – what to give
  – pregnancy in exposed
• Follow-up testing and counseling
Initiation of HIV PEP

• Regard as an urgent medical concern
  – If indicated, start PEP as soon as possible after exposure (hours rather than days)

• Interval after which PEP is no longer likely to be effective in humans is unknown
  – initiating PEP even days or weeks after an exposure should be considered
Re-evaluation of HIV-Exposed Person

Consider re-evaluation of the exposed person within 72 hours

- additional information about the source person may become available
- if the source person has a negative HIV antibody test, stop PEP
Considerations When Using PEP

Risk of Transmission

Risk of Adverse Effects

PEP
Postexposure Management:
Follow-up HIV Testing of Exposed Person

- If source HIV positive, test at 6 weeks, 3 months, 6 months
  - EIA standard test
  - Direct virus assays not recommended
- Extending follow-up to 12 months
  - Recommended for HCP who become infected with HCV following exposure to co-infected source
  - Optional in other situations
Postexposure Management: HIV Postexposure Counseling

- Side effects of PEP drugs
- Signs and symptoms of acute HIV infection
  - fever
  - rash
  - flu-like illness
- Prevention of secondary transmission
  - sexual abstinence or condom use
  - no blood/tissue donation
- Transmission and PEP drug risks if breastfeeding

No work restriction indicated
Sources of Additional Information

- Division of Healthcare Quality Promotion
  Phone: 800-893-0485
  Homepage: http://www.cdc.gov/ncidod/hip/

- Hepatitis Hotline
  Phone: 888-443-7232
  Homepage: http://www.cdc.gov/hepatitis

- Needlestick!
  Homepage: http://www.needlestick.mednet.ucla.edu
Sources of Additional Information

- National Institute for Occupational Safety and Health bloodborne pathogens website
  http://www.cdc.gov/niosh/bbppg.html

- Occupational Safety and Health Administration bloodborne pathogens website