

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

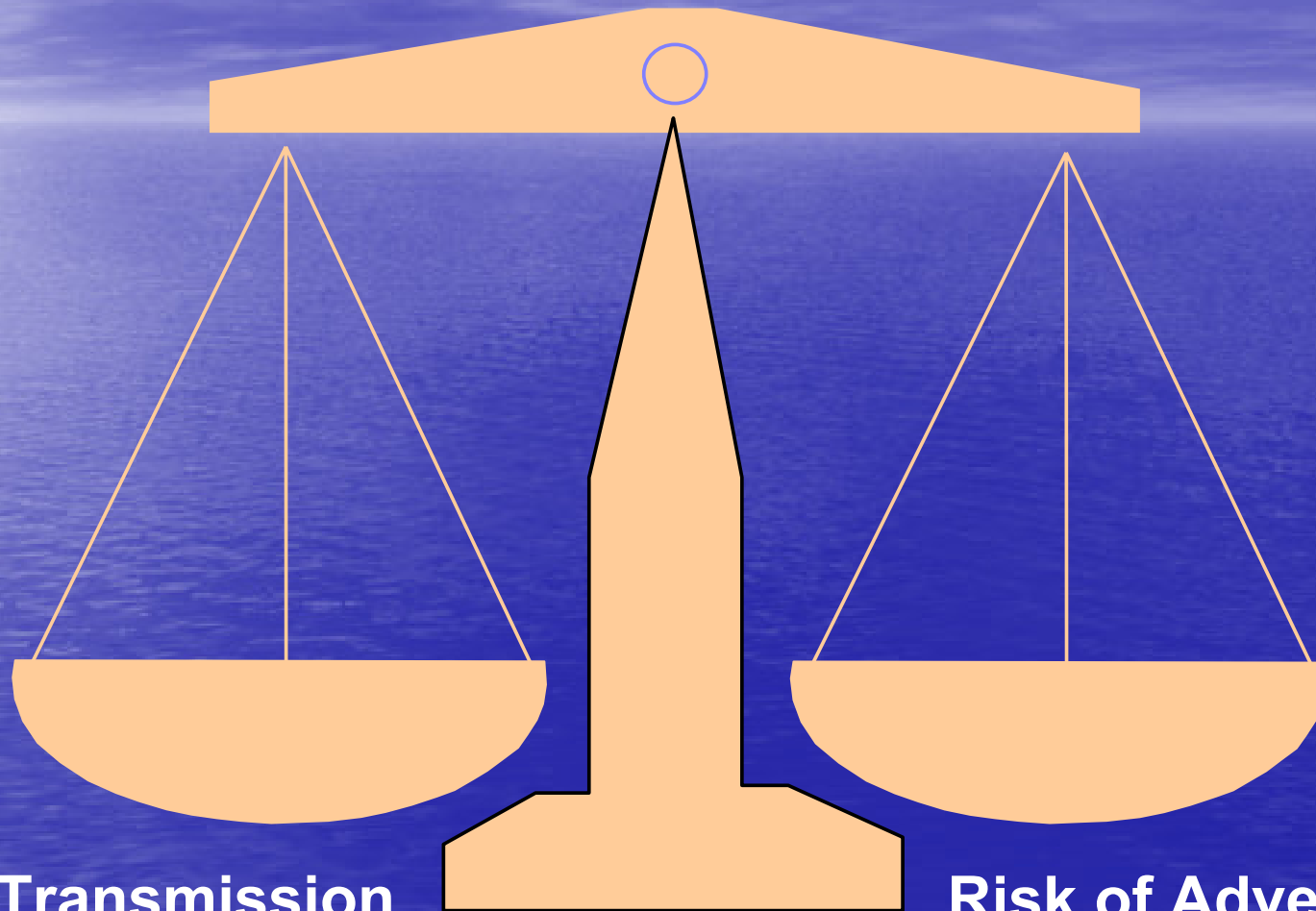
- Regard as an urgent medical concern
 - If indicated, start PEP as soon as possible after exposure (hours rather than days)
- Interval after which PEP is no longer likely to be effective in humans is unknown
 - initiating PEP even days or weeks after an exposure should be considered

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/bbpppg.html>
- Occupational Safety and Health Administration bloodborne pathogens website
<http://www.osha-slc.gov/SLTC/bloodbornepathogens/index.html>