



Designated Officer Training for Infection Prevention and Control

Bloodborne Infections and Mandatory Blood Testing Legislation

Emergency Services Workers
January 17, 2013

Sexual Health Program

Bloodborne Infections

- HIV (Human Immunodeficiency Virus)
- Hepatitis B Virus
- Hepatitis C Virus

Live in blood and some body fluids

For transmission
of a bloodborne infection to occur...

3 things must be in place

- Infected blood or body fluid
- An entry point of that fluid into another person's body
- An activity to bring the two together

Body Fluids which can be Infected with HIV

- Blood
- Any body fluid visibly contaminated with blood
- Semen and vaginal fluid
- Breast milk

How long can HIV survive?

- HIV is a very fragile virus
- Dies quickly when exposed to air
- Dried blood cannot transmit HIV

How is HIV transmitted?

- Unprotected sex with an infected person
- Sharing needles or other equipment for drug use
- Accidental needlestick injuries/blood splashes (low risk)
0.3%-0.4%.(needlestick) to 0.1%. (mucous membrane)
- Blood transfusions prior to 1985
- From infected mother to unborn baby or during breastfeeding

Significant Exposures

Significant Exposures Occur When Infectious Fluid Comes into contact with Person's Tissues:

- Percutaneous injury: needlestick or any puncture, cut with a sharp object
- Mucous membrane exposure: splash to eyes, nose or mouth
- Contact with non-intact skin: healing wound < 3 days old, cut or abraded skin

Non significant exposures

- Minor percutaneous, mucous membrane or skin exposure to non-infectious body fluid
- Intact skin exposure to blood or fluid visibly contaminated with blood
- Bites unless there has clearly been transmission of infected blood
- A superficial scratch which does not bleed
- Injuries received in fights unless it is clear that transfer of blood has occurred

Prevention of HIV Transmission After an Exposure

- Wash or flush the area; if cut, initially let it bleed
- Immediate assessment by physician
- Significant vs. non-significant risk
- Baseline testing for antibodies
- Treatment with PEP x 1 month

Best started 2-4 hours after an exposure

- Follow-up testing
- Prevention of transmission to others until certain of no infection

Facts About Hepatitis B

- Is about 100 times more infectious than HIV
- No cure -90% recover
- Blood, vaginal fluid & semen
- Saliva...BUT...1,000-10,000 times less concentrated than in blood
- Any body fluid visibly contaminated with blood
- Preventable with vaccine

How is Hep B transmitted?

- Sex without a condom
- Sharing of needles and equipment for drug use
- From mother to child in pregnancy
- Blood transfusions before 1985
- Needle stick/sharps injury (6-30%) and exposure to blood in the workplace
- Sharing of personal items like razors & toothbrushes
- Human bites where the skin is broken, though low risk

How Long can Hep B Survive?

- HBV can live in a dry environment for at least 7 days
- Once the virus is dead it cannot be “reactivated”

Prevention of Hep B Transmission After an Exposure

- Wash or flush the area; if cut, initially let it bleed
- Immediate assessment by physician
- Transmission is preventable!
- Hep B vaccine: responder vs. non-responder
- Baseline testing
- Treatment with immune globulin and vaccine
- Follow-up testing
- Prevention of transmission to others until certain of no infection

Hepatitis C

In blood (and body fluids visibly contaminated with blood) so transmission is mainly:

- Needle sharing and unclean needles for tattoos/piercing
- Needle stick (1.8%) and blood splashes
- Blood transfusions before 1992
- No vaccine

Hep C Survival Outside the Body

- Hep C may survive on surfaces at least 16 hours but no longer than 4 days

Treatment to Prevent Transmission of Hep C

- No treatment to prevent transmission
- 20% of those infected will clear infection spontaneously
- Baseline testing important (antibodies)
- Antiviral treatment now available with good outcomes
- RNA testing at 6 weeks: if positive, treatment success from 42-90% depending on genotype
- Follow-up antibody testing at 3 and 6 months

Prevention of Exposure to Bloodborne Infections in the Workplace

- Exposure to blood is the primary risk
- Never handle abandoned needles
- PPE critical
- Allow wound to bleed freely initially
- Flush exposed skin/eyes ASAP
- Soap and water+++
- Have blood spills cleaned immediately
(refer to workplace protocol) Household bleach
1:10 kills all viruses

Prevention continued

- Seek medical attention ASAP
- Ensure immunization of Hep B

Role of Health Unit

- Supportive
- Educational
- Can make recommendations for treatment and follow-up but plan of care rests with worker and physician
- Can work with source person to obtain information about risk to transmission, blood test information for HIV, Hep B & C, consent for sharing with you/your HCP

Mandatory Blood Testing Act (MBTA)...

What's Mandatory About It?

- Allows an eligible person who has been exposed to another individual's blood or body fluids to request that individual be ordered to submit to blood tests and to share the results of the tests with the exposed person
- Ministry of Community Safety and Correctional Services holds the responsibility of implementation
- Consent and Capacity Board holds responsibility for making an order

A person can submit an application if the exposure occurs:

- ◆ As a result of being a victim of crime
- ◆ While providing emergency health care services or emergency first aid to the person or ...

Eligible Groups

- ◆ In the course of his or her duties, if the person belongs to an identified group of individuals, including:
- ◆ Persons who are employed in a correctional institution, place of open custody or place of secure custody
- ◆ Police officers, civilian employees of a police service, First Nations constables and auxiliary members of a police service
- ◆ Firefighters (including volunteer firefighters)
- ◆ Paramedics and emergency medical attendants
- ◆ Paramedic students engaged in field training
- ◆ Members of the College of Nurses of Ontario
- ◆ Members of the College of Physicians and Surgeons of Ontario

If you choose to apply.....

- 2 forms are required for application
 - available only at the Ministry of Community Safety and Corrections [website](#) Applicant report (does not need to be sworn)
 - ***Physician report*** (completed by ER physician who does the post exposure assessment or family physician) and ***applicant report***
- Must be submitted within 7 days of an exposure
- Both must be completed in detail
- Fax or deliver to the health unit where the source person resides

MBTA continued

- Voluntary process: 2 days by Health Unit staff
- When unsuccessful (not found or refuses to provide a blood sample) the application is referred on for a possible order for mandatory testing
- Mandatory process: Consent and Capacity Board has authority to make an order; they will consider application and hold a hearing within 7 days
- Their decision is communicated to you and to the source person

Questions?