



Blood or Body Fluid Exposure

What do I do?

Quality & Safety – Staff Safety

January 25, 2023

Healthy People, Healthy Saskatchewan

The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.



www.saskhealthauthority.ca

VISION

Healthy People, Healthy Saskatchewan

MISSION

We work together to improve health and well-being. Every day. For everyone.

VALUES

- **SAFETY: *Be aware.*** Commit to physical, psychological, social, cultural and environmental safety. Every day. For everyone.
- **ACCOUNTABILITY: *Be responsible.*** Own each action and decision. Be transparent and have courage to speak up.
- **RESPECT: *Be kind.*** Honour diversity with dignity and empathy. Value each person as an individual.
- **COLLABORATION: *Be better together.*** Include and acknowledge the contributions of employees, physicians, patients, families and partners.
- **COMPASSION: *Be caring.*** Practice empathy. Listen actively to understand each other's experiences.

PHILOSOPHY OF CARE: Our commitment to a philosophy of Patient and Family Centred Care is at the heart of everything we do and provides the foundation of our values.



SHA Treaty Land Acknowledgement

Honouring Relationships with Indigenous People

We would like to acknowledge that we are gathering on Treaty 2, 4, 5, 6, 8, and 10 territory and the Homeland of the Métis.

Recognizing this history is important to our future and our efforts to close the gap in health outcomes between Indigenous and non-Indigenous peoples.

I pay my respects to the traditional caretakers of this land.

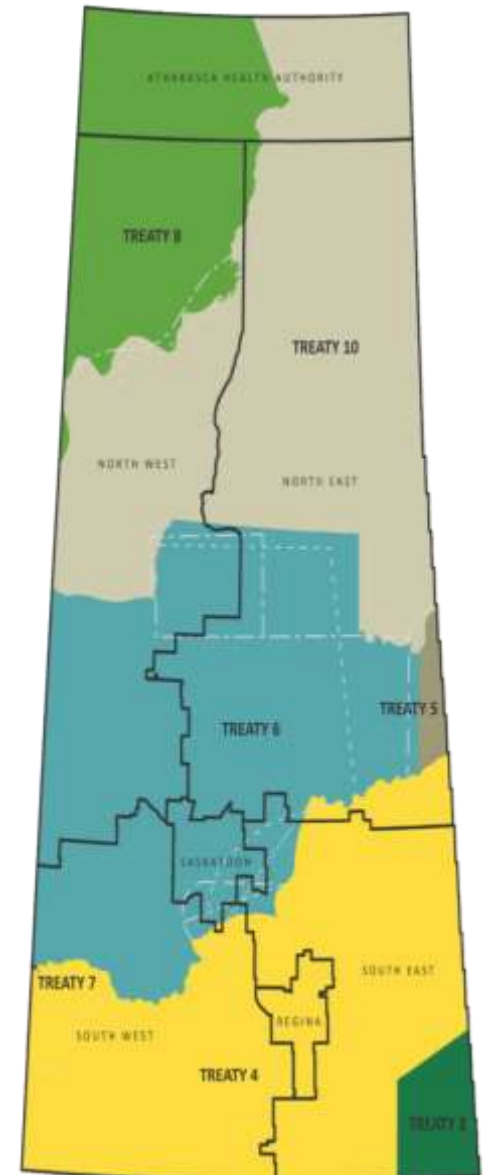
www.saskhealthauthority.ca/trc



Treaty Territories and Saskatchewan Health Authority Areas

Depictions of Treaty boundaries are subject to variation. These boundaries are usually not surveyed and are estimated based on written descriptions.

This map displays the Pre-1975 Treaties (Historic Treaties) in colour, as provided by Crown-Indigenous Relations and Northern Affairs Canada. The grey lines indicate alternate boundaries compiled from various sources.



LEARNING OBJECTIVES

- Blood borne pathogens (BBPs)
- Occupational blood or body fluid exposure (BBFE)
- Double/Reciprocal BBFEs
- Review *‘Saskatchewan Health Authority (SHA) – Saskatoon & Area Staff BBFE Assessment Tool’*
- Prevention
- Frequently Asked Questions

Blood Borne Pathogens

- A micro-organism(s) found in blood or certain body fluids that are capable of causing disease
- May be spread through a BBFE (needle stick injury, or a splash or spray of blood or body fluids (BBF) to the eyes, nose, mouth or non-intact skin)

The primary micro-organisms of concern are:

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



OCCUPATIONAL BBFE

When an employee is exposed to potentially infectious BBF in an occupational setting as a result of performing their duties such as:

- Needle poke, sharp instrument injury
- Splash to eyes/nose/mouth/non-intact skin
- Human bite

DOUBLE/RECIPROCAL BBFE

An **exposure** involves the transmission of BBF between a *source* and an *exposed person*:

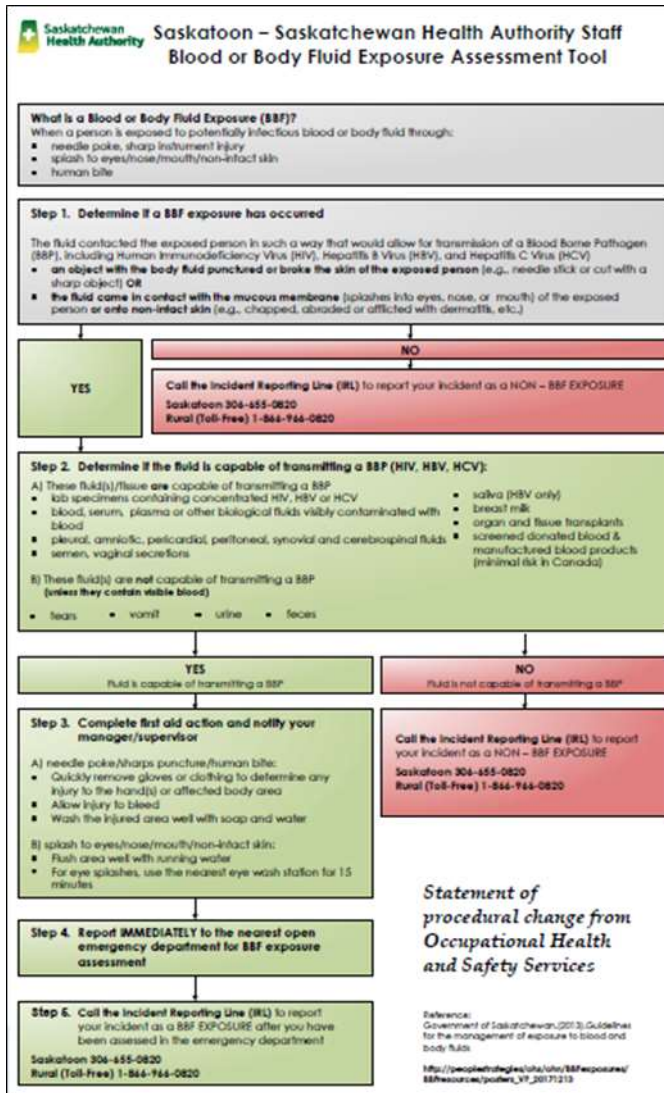
- **One-way BBFE**, where the BBF from the source person has a portal of entry into an exposed person; **OR**
- **DOUBLE/RECIPROCAL BBFE**, where there has been an *exchange* of BBFs between individuals such as human bite, body part cut by a sharp while in a patient's body cavity, subcutaneous needle-stick while the needle is still in the patient's arm.

Note: If a **DOUBLE/RECIPROCAL BBFE** has occurred, **both people** (health care worker (HCW) and the patient) have been exposed to each to each others BBFs AND both should be assessed for HIV *Post Exposure Prophylaxis (PEP)*

Action Required:

- ✓ If you have had a **DOUBLE/RECIPROCAL BBFE**, notify the Emergency Department (ED) Triage RN and the ED Physician at the time of your assessment

SHA – SASKATOON STAFF BBFE ASSESSMENT TOOL



STEP 1 - DETERMINE IF A BBFE HAS OCCURRED

Did the BBF contact the HCW in such a way that would allow for transmission of a BBP?

Such as:

- **An object with BBF punctured or broke the skin of the HCW (e.g., needle stick/cut with a sharp object)**

OR

- **The BBF came into contact with the mucous membranes (splash into eyes, nose, or mouth) or onto non-intact skin (e.g., chapped, abraded or afflicted with dermatitis, etc.) of the HCW**



Did the BBF contact the exposed person in such a way that would allow for transmission of a BBP?

Yes

Action Required:

- ✓ Review *Step 2* of the '*SHA – Saskatoon & Area Staff BBFE Assessment Tool*' to determine if the BBF is capable of transmitting a BBP

Did the BBF contact the exposed person in such a way that would allow for transmission of a BBP?

No, this is **NOT** a BBFE, it is a Near Miss incident

Action Required:

✓ Report your Near Miss incident to the Safety Alert System (SAS)

➤ 306 655 1600 (Saskatoon)

OR

➤ 1 844 655 1600 (Rural, Toll-Free)

STEP 2 - DETERMINE IF THE BBF IS CAPABLE OF TRANSMITTING A BBP

These BBFs have the potential to transmit a BBP:

- Lab specimens containing concentrated HIV, HBV or HCV
- Blood, serum, plasma or other biological fluids visibly contaminated with blood
- Pleural, amniotic, pericardial, peritoneal, synovial and cerebrospinal fluids
- Breast milk, organ and tissue transplants
- Screened donated blood & manufactured blood products (minimal risk in Canada)
- Saliva (HBV only, unless blood present)

These BBFs do NOT have the potential to transmit a BBP (unless they contain visible blood):

- Tears
- Vomit
- Urine
- Feces

IS THE BBF IS CAPABLE OF TRANSMITTING A BBP?

Yes, this is a **BBFE**

Action Required:

- ✓ Review *Step 3* of the '*SHA – Saskatoon & Area Staff BBFE Assessment Tool*' for First Aid Action instructions
- ✓ Immediately complete First Aid

IS THE BBF IS CAPABLE OF TRANSMITTING A BBP?

No, this is **NOT** a BBFE, it is a Near Miss incident

Action Required:

✓ Report your Near Miss incident to the SAS
➤ 306 655 1600 (Saskatoon)

OR

➤ 1 844 655 1600 (Rural, Toll-Free)

STEP 3 - COMPLETE FIRST AID ACTION & NOTIFY MANAGER/SUPERVISOR

Action Required:

✓ Complete First Aid as follows:

A) Needle poke/sharps puncture/human bite:

- Quickly remove gloves or clothing to determine any injury to the hand(s) or affected body area
- Allow injury to bleed
- Wash the injured area well with soap and water

B) Splash to eyes/nose/mouth/non-intact skin:

- Flush area well with running water
- For eye splashes, use the nearest eye wash station for 15 minutes

✓ Notify Manager/Supervisor

STEP 4 - REPORT TO THE NEAREST OPEN EMERGENCY DEPT (ED) FOR BBFE ASSESSMENT

Action Required:

- ✓ Review Step 4 of the '*SHA – Saskatoon & Area Staff BBFE Assessment Tool*'
- ✓ Immediately present to the nearest open ED
- ✓ Inform the ED Triage Nurse that you have had an occupational BBFE
- ✓ If you have had a ***DOUBLE/RECIPROCAL BBFE***, immediately alert the ED Triage Nurse and Physician

STEP 5 - REPORT YOUR BBFE

Action Required:

- ✓ Review Step 5 of the *'SHA – Saskatoon & Area Staff BBFE Assessment Tool'*
 - ✓ After you have been assessed in the ED report your BBFE to the SAS
 - 306 655 1600 (Saskatoon)
- OR
- 1 844 655 1600 (Rural, Toll-Free)

BBFE PREVENTION



Saskatchewan
Health Authority

STANDARD PRECAUTIONS

- Pertain to ALL patients receiving care regardless of their diagnosis or presumed infection status

Apply to:

- Blood
- All body fluids, secretions and excretions (except sweat) regardless of whether or not they contain visible blood
- Non-Intact skin
- Mucous membranes

POINT OF CARE RISK ASSESSMENT (PCRA)

- Part of *Standard Precautions*
- Systematic process of reviewing work activities
- Evaluating the possible hazards/risk
- Implementing suitable control measures to eliminate, reduce or minimize the possible hazards/risk
- Must be completed before EACH interaction with a patient and their environment
- Appropriate Personal Protective Equipment (PPE) **MUST** be worn for the type of hazard/risk identified

PPE - Gloves

Standard Precautions requires the use of appropriate PPE when there is a *POTENTIAL* to come into contact with any of the following:

- Blood
- Body fluids
- Secretions
- Excretions
- Mucous membranes
- Non-intact skin
- Contaminated items



PPE - Eye and Facial Protection

Standard Precautions require the use of appropriate PPE when there is a *POTENTIAL* of a splash or spray of BBFs

- Appropriate PPE **MUST** cover all mucous membranes including the eyes, nose and mouth

Options:

- Full face shield with a procedural mask

OR

- Full face shield with a N95 respirator (*'Airborne', 'Airborne and Contact'* and *'Droplet Contact Plus'* precautions rooms)

SHARPS CONTAINERS

Must be:

- An approved container with a fixed top, or a lid with the ability to lock
- At an appropriate height
- Accessible (use portable sharps containers if the wall-mounted container is not readily accessible)
- Replaced once the fill line has been reached
- The correct size for the sharp(s) being disposed (i.e. some devices such as peripherally inserted central catheter (PICC) lines and needles that have long guide wires require a deeper container e.g. a 5 gallon unit)



NEEDLE/SHARP ITEMS

- Never pass a contaminated sharp from one person to another
- Never recap a needle
- Use Safety Engineered Safety Devices
- Activate the safety device as per the manufacturer's recommendations and immediately dispose into a sharps container
- Needles/sharps must be disposed of immediately after use
- Use plastic blood/capillary collection tubes and leak proof containers for specimens



BBF SPILLS

- Must be cleaned up immediately
- Appropriate PPE **MUST** be worn
- The area must be cleaned of organic matter (BBF) before disinfection of the area is effective
- After the area is cleaned, it should be decontaminated with a hospital disinfectant

HEPATITIS B VACCINE

- Hepatitis B infection is a vaccine preventable disease
- Side effects are minimal
- Offered free of charge to all SHA – Saskatoon & Area staff

Action Required:

✓ Call a site OHS Office to book your appointment:

Royal University Hospital OHS Office	Saskatoon City Hospital OHS Office	St. Paul's Hospital OHS Office
306 655 1387	306 655 8040	306 655 5495

FREQUENTLY ASKED QUESTIONS



Saskatchewan
Health Authority

HOW MANY SHA – SASKATOON & AREA HCWs SUSTAINED A BBFE IN 2022?

Total number of BBFEs reported	167
Total number of BBFEs that received the 5 day HIV PEP Kit	12
Total number of BBFEs that received the 28 day HIV PEP Kit	10

SHOULD I BE WORRIED ABOUT MY EXPOSURE?

Risk of transmission from the exposure is only possible if:

- An object with BBF punctured or broke your skin (such as a needle stick); **OR**
- The BBF came in contact with broken skin, your eyes, nose or mouth (mucous membranes); **AND**
- You were exposed to a BBF that can transmit the virus (see below):

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
<ul style="list-style-type: none">• Blood, blood products or other body fluids visibly contaminated with blood;• Semen• Vaginal/rectal secretions• Cerebrospinal fluid (CSF), amniotic, pericardial, peritoneal and synovial fluids; and inflammatory exudates• Tissue or organs e.g. transplantation• Saliva (only if contaminated with blood);• Breastmilk	<ul style="list-style-type: none">• Blood, blood products or other body fluids visibly contaminated with blood;• Semen, vaginal secretions• Saliva• Breastmilk (only if contaminated with blood)	<ul style="list-style-type: none">• Blood, blood products or other body fluids visibly contaminated with blood;• Semen, vaginal secretions• Saliva and breastmilk (only if contaminated with blood)

WHAT IS THE VIRUS AND HOW CAN IT AFFECT ME?

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
<ul style="list-style-type: none">• It affects the immune system• Over time, it wears down the immune system and makes it harder to fight infection	<ul style="list-style-type: none">• It infects the liver• About 90% of adults will completely recover from the infection after 6 months• 5% of people will be at risk for long-term complications because of the ongoing damage to the liver (e.g. cirrhosis, or liver cancer)• There are treatment options available for this virus	<ul style="list-style-type: none">• It infects the liver• About 25% of people will clear the virus on their own• The other 75% of people will remain chronically infected unless they receive antiviral therapy which can clear the virus in greater than 90% of individuals• Without treatment, 15 – 25% will be at risk for longer term complications

WHAT IS THE RISK FROM THE EXPOSURE WITH A POSITIVE SOURCE?

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
<ul style="list-style-type: none">• The estimated risk of HIV transmission from a needle-stick injury is approximately 0.3%• Exposure to mucous membranes is approximately 0.1%	<ul style="list-style-type: none">• If you responded to previous Hepatitis B vaccinations, the risk of infection is virtually 0%• If you have not been immunized or did not respond to Hepatitis B vaccines; AND did not receive Hepatitis B Immune Globulin, the risk from a needle-stick injury is between 1 – 30%	<ul style="list-style-type: none">• The estimated risk of HCV transmission from a needle-stick injury is approximately 2%

IS THERE A VACCINE?

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
No	Yes	No

WHAT IS THE TREATMENT FOLLOWING A HIGH RISK BBFE?

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
<ul style="list-style-type: none">• There are medications that help prevent infection <p><i>*If HIV PEP is indicated it should be started as soon as possible, preferably within 2 hours of the exposure</i></p>	<ul style="list-style-type: none">• Hepatitis B immune Globulin and Hepatitis B vaccine for those who are not immune	<ul style="list-style-type: none">• There is no preventative treatment• Monitoring for infection will allow for early treatment of infection

WHAT FOLLOW UP IS REQUIRED?

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
Post exposure blood tests at: <ul style="list-style-type: none">• 3 weeks• 6 weeks• 3 months	Blood test at: <ul style="list-style-type: none">• Initial visit (ED assessment)• Vaccinate as per recommendations	Post exposure blood tests at: <ul style="list-style-type: none">• 1 month• 3 months• 6 months

HOW DO I PROTECT OTHERS WHILE I AM WAITING FOR MY STATUS TO BE CONFIRMED THROUGH TESTING?

All of these viruses are transmitted through BBF so it is important to:

- Practice safer sex – use condoms for vaginal, anal and oral sex
- Do not donate blood, blood products or tissues
- Do not share personal items such as razors, toothbrushes, etc.
- Do not share needles or drug use equipment
- Ensure items contaminated with blood are disposed of in an impermeable plastic bag, closed, and disposed of with the regular garbage
- Do not get pregnant and do not breastfeed



REFERENCES

Government of Saskatchewan . Guidelines for the management of exposure to blood and body fluids available here:

<https://www.ehealthsask.ca/services/Manuals/Pages/hiv-guidelines.aspx>

Saskatoon Health Region Infection Prevention & Control Procedure Manual available here: <https://www.saskatoonhealthregion.ca/about/Pages/Policies-IPC.aspx>

Thank you.



Saskatchewan
Health Authority