



Blood Borne Pathogens

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- COLLEGE CONTACT:** Public and Physician Advisory Services

Blood Borne Pathogens

INTRODUCTION

Health-care professionals and patients are concerned about the risk of transmission of infectious diseases from one to the other. The scientific literature indicates that the risk of transmission from health-care worker to patient is low. However, there are known cases of transmission even after world-wide efforts to adopt appropriate infection prevention and control practices in surgical and other medical settings.

For health-care regulators, this raises the question – what mechanisms should be put in place to decrease the risk of transmission to protect the patient and the health professional?

This policy sets expectations for physician conduct to safeguard the health of both patients and physicians, and to minimize the risk of exposure to blood borne pathogens through the provision of care. The expectations in this policy are grounded in the principles of medical professionalism as set out in the *Practice Guide*, best available evidence relating to blood borne pathogens, and the College's statutory mandate to protect and serve the public.

SCOPE

This policy applies to physicians who perform and who assist in performing exposure prone procedures.¹ All references to 'physicians' should be interpreted as including physicians who perform exposure prone procedures, *and* physicians who assist in performing exposure prone procedures.

The policy does not apply to physicians who do not perform or assist in performing exposure prone procedures.

Details about the College's own practices with respect to the management of physician information, and seropositive physicians are set out in Appendix A.

TERMINOLOGY

Blood Borne Pathogens:

Blood borne pathogens (BBPs) refer to hepatitis B virus (HBV), hepatitis C virus (HCV), and/or human immunodeficiency virus (HIV).

Exposure Prone Procedures:

An exposure prone procedure is one which involves one or more of the following:

1. digital palpation of a needle tip in a body cavity (a hollow space within the body or one of its organs) or the simultaneous presence of the health-care worker's fingers and a needle or other sharp instrument or object in a blind or highly confined anatomic site (e.g., during major abdominal, cardiothoracic, vaginal and/or orthopaedic operations); or
2. repair of major traumatic injuries; or
3. manipulation, cutting or removal of any oral or periodontal tissue, including tooth structures during which blood from a health-care worker has the potential to expose the patient's open tissue to a blood borne pathogen.²

Examples of procedures that are classified as 'exposure prone' in the *SHEA Guideline for Management of Healthcare Workers Who Are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus*, are attached as Appendix B.

Routine Practices³:

Routine Practices refers to a set of practices designed to protect health care-workers and patients from infection caused by a broad range of pathogens including blood borne pathogens. These practices must be followed when caring for **all patients at all times** regardless of the patient's diagnosis. Key elements of Routine Practices include: point of care risk assessment, hand hygiene, use of barriers (e.g., gloves, mask, eye protection, face shield and/or gowns) as per the risk assessment, safe handling of sharps, and cleaning and disinfection of equipment and environmental surfaces between uses for each patient.

Expert Panel:

The Expert Panel is a panel struck by the College to evaluate the health information and practice of seropositive

1. This position is consistent with College expectations in relation to the Annual Renewal Form. It is based on the recognition that physicians who assist in performing exposure prone procedures may be subject to similar risks as those physicians actually performing the procedures.

2. Centers for Disease Control and Prevention, 1998.

3. The terminology describing these infection prevention and control measures has evolved. Formerly, the term 'Universal Precautions' was used. Routine Practices is now the current term of usage and encompasses a broader scope of measures.



physicians for the purpose of recommending to the College what restrictions, if any, will be required on the seropositive physician's practice. It is comprised of experts in surgery, public health, infectious diseases, along with a chief of staff, and other experts as required.

Treating Physician:

For the purposes of this policy, treating physician refers to the physician who is managing the care of the seropositive physician with respect to their infection with a blood borne pathogen.

PRINCIPLES

The professional expectations in this policy are informed by the following principles which are based on the *Practice Guide*. Physicians who perform or assist in performing exposure prone procedures are expected to:

1. Act in patients' best interests, by taking steps to safeguard their own health and the health of their patients;
2. Be aware of their own health, and recognize when they are not able to provide care safely and competently in accordance with this policy;
3. Maintain their own wellness, which includes knowing their own serological status and availing themselves of appropriate immunization and treatment;
4. Provide care to patients only when health and viral loads make it safe to do so;
5. Maintain patient trust and assist in maintaining the reputation of the profession through a commitment to altruism, compassion and service; and
6. Participate in self-regulation of the medical profession, by complying with the expectations in this policy.

POLICY

Physicians are expected to take steps to safeguard their own health and that of their patients, and to report their own seropositive status to the College in accordance with the requirements of this policy.

A. Safeguarding Health

The College expects physicians to adhere to Routine Practices, and to take other precautionary measures, as required and as recommended by their treating physician.⁴

a) Routine Practices

All physicians must adhere to Routine Practices in accordance with Appendix C. This expectation applies equally to physicians who are seropositive for blood borne pathogens, and physicians who are seronegative.

b) HBV Vaccination

It is strongly recommended that all practising physicians be immunized against HBV, unless a contraindication exists, or there is evidence of prior immunity. This is for the protection of both physicians and their patients.⁵

Physicians who do not respond to the vaccine are advised to seek expert advice on alternative vaccination protocols in order to be confirmed immune to HBV.

c) Additional Precautions for Seropositive Physicians

Physicians who have tested positive for HBV, HCV, and/or HIV and who wish to continue performing or assisting in performing exposure prone procedures must be under the care of a treating physician who has expertise in the management of their infection (e.g., infectious diseases expert, hepatologist).

Seropositive physicians will be able to continue performing or assisting in performing exposure prone procedures if the College has determined that doing so will not compromise patient safety. In making this determination the College will be informed by the advice of the treating physician, and where applicable, the recommendations of the Expert Panel.

If the College has determined that a seropositive physician can safely perform or assist in performing exposure prone procedures, the physician must take such precautions (in addition to Routine Practices) that are required or recommended by the College. The College's recommendations

4. This includes precautionary measures required by hospitals and other health-care institutions at which physicians work.

5. Current evidence suggests that the risk of HBV infection is reduced through vaccination of health-care workers: Canadian Medical Protective Association, "The Physician with Blood-Borne Viral Infection: What are the Risks to Patients and What is an Appropriate Approach to the Physicians?", August 2010, at 20.

Blood Borne Pathogens

regarding additional precautions will be consistent with the SHEA Guideline, and the recommendations of the Expert Panel, where applicable.

B. Serological Status

Physicians must be tested for blood borne pathogens, and report seropositive status to the College as required by this policy.

Testing for BBPs

The frequency with which physicians must be tested for blood borne pathogens will vary, depending on the applicable circumstances. Expectations for specific circumstances are set out below.

Routine Testing

Physicians performing or assisting in performing exposure prone procedures must be tested for blood borne pathogens (HBV, HCV and HIV) annually.

Beginning Exposure Prone Procedures

Physicians who will be performing or assisting in performing exposure prone procedures as a new part of their practice⁶ are expected to be tested for blood borne pathogens *before* they commence this new area of practice.

Testing Post-Exposure

Physicians who have been exposed to bodily fluids of unknown status through a specific incident, such as a needle prick, or splash must seek appropriate expert advice regarding the frequency of testing that is required to determine if they have been infected with one or more blood borne pathogens.

Physicians should note that following an exposure to a patient's bodily fluids, they may be able to have the patient's serological status confirmed under the *Mandatory Blood Testing Act, 2006*⁷. Physicians should inquire with their institution, or seek independent legal advice from legal counsel or the Canadian Medical Protective Association, as to whether this statute is applicable in the circumstances.⁸

The College encourages physicians to consult the *Blood Borne Surveillance Protocol for Ontario Hospitals*⁹ for detailed information about post-exposure protocols, including post-exposure prophylaxis.

Testing for Seropositive Physicians

Physicians who have tested positive for HBV, HCV, and/or HIV must undergo such regular testing as is recommended by their treating physician, and approved by the College for the purposes of monitoring their health, including their viral loads.

Seropositive physicians will be able to continue performing or assisting in performing exposure prone procedures if the College has determined that doing so will not compromise patient safety. In making this determination the College will be informed by the advice of the treating physician, and where applicable, the recommendations of the Expert Panel.

Reporting Serological Status

Physicians must report if they are seropositive with respect to HBV, HCV, and/or HIV through the completion of the Annual Renewal Form.

Reporting, outside the context of the Annual Renewal Form, is required when a physician learns he or she is seropositive for HBV, HCV and/or HIV. Physicians must make a report to the College as soon as is reasonably practical after learning of their status. It is not acceptable for physicians in these instances to wait to report their status on the next Annual Renewal Form.

6. This applies to physicians who will begin performing or assisting in performing exposure prone procedures as part of their educational training, as a result of a change in scope of practice, and/or as a result of re-entering practice. Physicians may wish to consult the *Changing Scope of Practice* policy and the *Re-entering Practice* policy for more general guidance on these topics.

7. S.O. 2006, c.26.

8. The Ministry of Community Safety and Correctional Services and local public health units may also have information regarding the *Mandatory Blood Testing Act, 2006*.

9. This document is available at:

<http://www.oha.com/Services/HealthSafety/Documents/Protocols/Blood%20Borne%20Diseases%20Protocol%20-%20Reviewed%20and%20Revised%20November%202010.pdf>.

Appendices

APPENDIX A:

College Practices: Blood Borne Pathogens

This document describes the College's practices with respect to blood borne pathogens. It does not create any new or unique obligations but, rather, articulates how existing obligations and practices apply to blood borne pathogens.

Confidentiality and Privacy

As set out in the *Privacy Code*, the College respects the confidentiality and privacy of all information it receives or creates in the course of fulfilling its regulatory functions. This includes information about blood borne pathogens and physician health.

To do so, the College ensures that information about physicians' serological status is only made available to College staff, Committees or experts who are involved in issues related to blood borne pathogens. All those who have access to this information know and understand their obligations regarding confidentiality and privacy.

The College also ensures that information about physicians' serological status and any related information such as practice evaluations and practice restrictions are kept in a secure manner.

Seropositive Physicians: Evaluation of Practice and Practice Restrictions

When a physician is seropositive, and wishes to continue performing exposure prone procedures, the College will evaluate the physician's practice, and health information to determine what restrictions, if any, are required to safeguard patient health.

The College will take steps¹ to gather relevant information about the physician's health and practice. This information is provided to an Expert Panel, comprised of experts in surgery, public health, infectious disease, a chief of staff and other experts, including those from the member's own specialty, as required.

As part of this process, the physician has an opportunity to make representations and to provide his or her own experts' opinion if available, and if different from that of the Expert Panel.

Any advice provided or where necessary, restrictions imposed, will be based on the recommendations of the Expert Panel. Restricting physicians from doing exposure prone procedures is resorted to when other options are not

sufficient to safeguard patient health.

If the College does impose restrictions on a physician's practice, it will share the details of the restrictions with the institution(s) at which the physician works. Whether broader notification of the practice restrictions is required will depend on the circumstances of each case. When evaluating whether broader notification is required, the College will strive to protect physician privacy to the greatest extent possible.

APPENDIX B:

SHEA Guideline for Management of Healthcare Workers who are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus

Examples of Procedures Classified as Exposure Prone

The following procedures have been identified in the SHEA Guideline as those for which there is a definite risk of blood borne virus transmission (Category III Procedures).

They are adopted by the College as examples of procedures that are classified as 'exposure prone' for the purposes of the Annual Renewal Form, and the Blood Borne Pathogens policy.

- General surgery, including nephrectomy, small bowel resection, cholecystectomy, subtotal thyroidectomy, other elective open abdominal surgery;
- General oral surgery, including surgical extractions, hard and soft tissue biopsy (if more extensive and/or having difficult access for suturing), apicoectomy, root amputation, gingivectomy, periodontal curettage, mucogingival and osseous surgery, alveoplasty or alveoectomy, and endosseous implant surgery;
- Cardiothoracic surgery, including valve replacement, coronary artery bypass grafting, other bypass surgery, heart transplantation, repair of congenital heart defects, thymectomy, and open-lung biopsy;
- Open extensive head and neck surgery involving bones, including oncological procedures;
- Neurosurgery, including craniotomy, other intracranial procedures, and open-spine surgery;
- Nonelective procedures performed in the emergency department, including open resuscitation efforts, deep suturing to arrest hemorrhage, and internal cardiac massage;

¹ As authorized by the College's legal authority.

Appendices

- Obstetrical/gynecological surgery, including cesarean delivery, hysterectomy, forceps delivery, episiotomy, cone biopsy, and ovarian cyst removal, and other transvaginal obstetrical and gynecological procedures involving hand-guided sharps;
- Orthopedic procedures, including total knee arthroplasty, total hip arthroplasty, major joint replacement surgery, open spine surgery, and open pelvic surgery;
- Extensive plastic surgery, including extensive cosmetic procedures (e.g., abdominoplasty and thoracoplasty);
- Transplantation surgery (except skin and corneal transplantation);
- Trauma surgery, including open head injuries, facial and jaw fracture reductions, extensive soft-tissue trauma, and ophthalmic trauma;
- Interactions with patients in situations during which the risk of the patient biting the physician is significant; for example, interactions with violent patients or patients experiencing an epileptic seizure;
- Any open surgical procedure with a duration of more than three hours, probably necessitating glove change.

APPENDIX C:

Routine Practices

Preamble

The term “Routine Practices” (RP) refers to a set of practices designed to protect health-care workers (HCW) and patients from infection caused by a broad range of pathogens including blood borne viruses. These practices must be followed when caring for all patients at all times regardless of the patient’s diagnosis. Although RP are targeted to prevent transmission of microbes from patient to patient and HCW to HCW as well as between HCW and patient, the focus of this discussion is the transmission of microbes from HCW to patient and/or patient to HCW, in particular as related to the blood borne viruses hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV).

RP begin with a point of care risk assessment¹ to consider the potential for microbial transmission during the upcoming process of care. This risk assessment is routinely followed by hand hygiene and donning of the appropriate barrier equipment prior to examining the patient.² RP also

include care in the use and disposal of needles and other sharp instruments, documented immunity/immunization against HBV as appropriate, and proper reprocessing of medical equipment.³ HCWs performing exposure prone procedures* are at an increased risk of infection with blood borne pathogens and must be knowledgeable about and diligently adhere to RP. The key elements of RP are discussed briefly below, and a glossary of terms appropriate to this document follows. For more information please check the appropriate reference(s).

¹Point of Care Risk Assessment

- The risk of exposure to blood, body fluids* and non-intact skin* should be considered by assessing the nature of the upcoming process of care, the patient, the HCW and the health care environment.
- Strategies (e.g., choice of barrier precautions) should be identified and implemented to decrease exposure risk and prevent the transmission of microorganisms.

²Hand Hygiene

- Hand hygiene is the single most important measure to prevent the spread of infection.
- Hand hygiene refers to both washing with soap and water or the use of alcohol-based hand rubs (ABHR).
- Use of ABHR (70-90% alcohol) is the preferred method of cleaning hands when hands are not visibly soiled. Hand washing with soap and water must be performed when hands are visibly soiled.
- Hand hygiene must be performed,
 - Before initial patient/patient environment contact,
 - Before performing an aseptic procedure,
 - After blood/body fluid exposure after gloves have been removed, and
 - After patient/patient environment contact,

To prevent cross-contamination of different body sites, it may be necessary to perform hand hygiene between procedures on the same person.

³Gloves

- Medical grade gloves (clean, non-sterile gloves are adequate for routine care) should be worn when contact with blood/body fluids, secretions, excretions, mucous membranes*, non-intact skin and/or potentially contaminated

items is anticipated.

- Gloves should be changed or removed after touching a patient's contaminated body site and prior to touching the patient's clean body site or the environment.
- Gloves should be removed promptly after use, followed by immediate hand hygiene.

Mask, Eye Protection, Face Shield and Gowns

- Masks, eye protection (safety glasses, goggles or face shield) and/ or gowns as appropriate to the type of contact anticipated should be worn in order to protect mucous membranes and/or clothing during clinical procedures, care activities or handling used medical equipment if splashes or sprays of blood, body fluids, secretions, or excretions might be generated.

Handling Sharps

- Sharps should be handled as minimally as possible.
- Needles should not be re-capped.
- Used needles and other sharps should be discarded in a specially designed sharps container.

Cleaning and Disinfection of Equipment and Environmental Surfaces

- All used medical equipment must be cleaned and then disinfected or sterilized as appropriate prior to use on another patient.
- Equipment that enters sterile tissues, including the vascular system is referred to as a critical device and must be sterilized after cleaning.
- Equipment that comes in contact with non-intact skin or mucous membranes but does not penetrate them is referred to as a semi-critical device and requires high level disinfection after cleaning.
- Equipment that touches only intact skin and not mucous membranes, or does not directly touch the patient is referred to as a non-critical device and requires low level disinfection after cleaning.
- Single-use items should be discarded.

GLOSSARY

***Body fluids:** blood, vomit, stool, semen, vaginal fluid, urine, CSF, peritoneal fluids, pleural fluids, droplets from coughing or sneezing, except sweat, regardless of whether or not they contain visible blood.

***Exposure Prone Procedures** are defined as follows:

- 1) Digital palpation of a needle tip in a body cavity (a hollow space within the body or one of its organs) or the simultaneous presence of the health-care worker's fingers and a needle or other sharp instrument or object in a blind or highly confined anatomic site e.g., during major abdominal, cardiothoracic, vaginal and/or orthopaedic operations, or
- 2) Repair of traumatic injuries, or
- 3) Manipulation, cutting or removal of any oral or perioral tissue, including both tooth structures, during which blood from a health-care worker has the potential to expose the patient's open tissue to a blood borne pathogen.

***Mucous membranes:** lining of the eyes, nose and mouth.

***Non-intact skin:** open lesions, and dermatitis.

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