

*Island Orthodontics - Dr. Vohn Rosang*

Exposure Control Plan for Controlling  
Infectious Disease

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# Exposure Control Plan For Controlling Infectious Diseases

*Designated Responsible Person: Vohn Rosang  
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## Health hazards of Blood and Body Fluid Exposure

### 1.0 TRANSMISSION

Transmission of bloodborne pathogens [e.g., Hepatitis B virus (HBV), Hepatitis C virus (HCV), Human Immunodeficiency Virus (HIV)] or infectious diseases transmitted by aerosol or droplet from patients is an important occupational hazard faced by dental health care workers (DHCW). The risk of bloodborne pathogen or infectious disease transmission following occupational exposure depends on a variety of factors that include source patient factors (e.g., titre of virus in the patient's blood/body fluid, travel history, incubation period), the type of injury and quantity of blood/body fluid transferred to the DHCW during the exposure, and the DHCW's immune status. The greatest risk of infection transmission is through percutaneous exposure to infected blood. Nevertheless, transmission of HBV, HCV, or HIV after mucous membrane or non-intact skin exposure to blood has also been reported. The risk of transmission of these pathogens through mucocutaneous exposure is considered lower than the risk associated with a percutaneous exposure. The greatest risk of transmission of COVID-19 and other acute respiratory illnesses such as influenza may be exposure to aerosol generating procedures, simply because these procedures are performed everyday and are generally a part of routine dentistry.

### 2.0 STATEMENT OF PURPOSE

Island Orthodontics is committed to providing a safe and healthy workplace for all staff. A combination of preventative measures and procedures will be used to achieve these goals, including the most effective control technologies available and personal protective equipment (PPE). Procedures will protect not only all staff and our patients, but also other workers who may enter the practice. All staff must be familiar with their responsibilities and follow the procedures outlined in this plan to prevent or reduce exposure to infectious diseases.

### 3.0 DEFINITIONS

Cleaning – the physical removal of dirt, dust or foreign material. Cleaning usually involves soap and water, detergents or enzymatic cleaners. Thorough cleaning is required before disinfection or sterilization may take place.

Disinfection – removal and destruction of most pathogens (or disease-causing organisms) except bacterial spores; requires friction (cleaning) and the use of a disinfectant product.

High touch areas/surfaces – are those that have frequent contact with hands and require more frequent cleaning. Examples include chair arms, controls and switches, drawers and faucet handles, light handles and switches, countertops, radiography equipment, pens, computers, keyboard and monitors, telephones, doorknobs, reusable containers of dental materials, monitoring equipment, and ABHR dispensers.

Personal Protective Equipment (PPE) – barriers worn to prevent mucous membranes, airways, skin and clothing from contact and prevent exposure to blood and body fluids.

Point of Care Risk Assessment – a dynamic process done before each interaction with a patient or their environment in order to determine which interventions are required to prevent transmission of microorganisms during the interaction considering the patient's status can change.

Routine Practices – based on the assumption that all blood and body fluid contain potentially infectious organisms, the same safe standards of practice should be used routinely with all patients to prevent exposure to blood, body fluids, secretions, excretions, mucous membranes, non-intact skin or soiled items and to prevent the spread of microorganisms. Sharps – are devices that can cause occupational injury to dental care providers (e.g. laceration or puncture the skin). Some examples of sharps includes needles, lancets and scalpel blades.

#### 4.0 POLICY

In keeping with WorkSafeBC's (WSBC) commitment to provide a safe working environment. The potential for the transmission of bloodborne pathogens or other infectious diseases in the work setting is recognized by WSBC as posing a serious risk to all workers.

#### 5.0 RESPONSIBILITIES

##### *Employer:*

- Ensure safe work procedures, staff training and that Personal Protective Equipment (PPE) required to implement and maintain the exposure control plan are readily available when and where they are required.
- Ensure that the materials (for example, gloves, eye protection, respirators, alcohol-based hand sanitizers, and washing facilities) and other resources (for example, worker training materials) required to implement and maintain the plan are readily available where and when they are required.
- Select, identify, implement and document the appropriate site-specific control measures.
- Designate a responsible person or yourself to ensure that he/she and all workers are educated and trained to an acceptable level of competency. This should be documented.
- Encourage staff to be vaccinated as recommended in the BC Centre for Disease Control's (BCCDC) Communicable Disease Control Manual has established criteria for determining the conditions under which vaccinations are appropriate.
- Ensure appropriate use of PPE ( gloves, eye protection,scrubs, and masks) when there is a risk of exposure to blood/body fluids or infectious diseases.
- Conduct periodic reviews (annually) of the plan's effectiveness, and consider the need for any new control technologies.
- Maintain records of staff/worker education, training and health.
- Ensure that a copy of the Exposure Control Plan is available to all workers.
- Ensure workers understand the expectation that they do NOT report for work if they have or are developing any symptoms consistent with having contracted an infectious disease (See point 10 below)

##### *Responsible Person:*

- Ensure all workers are adequately trained and instructed on the controls measures and procedures for the hazards at the dental office/clinic.
- Ensure all workers use appropriate PPE as instructed to reduce the risk of exposure to blood borne pathogens.
- Direct work in a manner that eliminates or minimizes the risk to staff/workers through the use of engineering controls (equipment and work environment), administrative controls (safe work procedures) or personal protective equipment.

##### *Worker:*

- Know the hazards of the workplace and risks of treating infected patients.

- Follow established and approved safe work procedures, including this Exposure Control Plan, as directed by the dentist or the responsible person.
- Comply with engineering and administrative controls and use any required PPE as instructed to eliminate or minimize the risk of exposure.
- Report any unsafe conditions or acts to the dentist or the responsible person.
- Know how and when to report exposure incidents.
- Inform the dentist and/or responsible person if they have or are developing any symptoms consistent with having contracted an infectious disease

## 6.0 RISK IDENTIFICATION AND ASSESSMENT

Four primary routes of transmission are anticipated for blood and body fluids, all of which need to be controlled. These include contact, droplet, airborne transmission and percutaneous accidental injury (needle-stick).

### 1. *Contact Transmission: Direct and Indirect*

Direct contact involves skin-to-skin contact, such as patient care or emergency response activity that requires direct personal contact. Indirect contact involves a worker touching a contaminated intermediate object such as a table, doorknob, telephone, or computer keyboard, and then touching the eyes, nose, or mouth. Contact transmission is important to consider because influenza viruses can persist for minutes on hands and hours on surfaces.

### 2. *Droplet Transmission*

Large droplets may be generated when an infected person coughs or sneezes. Droplets travel a short distance through the air, and can be deposited on inanimate surfaces or in the eyes, nose, or mouth.

### 3. *Airborne Transmission*

Airborne (inhalable) particles can be generated from aerosol generating dental procedures such as those that require the use of air/water syringe, suctioning tool and/or dental hand piece. Airborne particles can also be generated from coughs and/or sneezes.

Coughs and sneezes produce both large droplets and smaller airborne particles. The smaller particles remain suspended in air for longer periods, and can be inhaled. The large droplets can also evaporate quickly to form additional inhalable particles. As the distance from the person coughing or sneezing increases, the risk of infection from airborne exposure is reduced; but it can still be a concern in smaller, enclosed areas, especially where there is limited ventilation.

### 4. *Percutaneous Injury*

Percutaneous injury is the most common risk factor for the transmission of Hepatitis C (HCV), Hepatitis B (HBV) and Human Immunodeficiency Virus (HIV). In the dental practice, examples could include using needles - sutures/hypodermic, scalpel blades and sharp surgical instruments (e.g. periosteal elevators). Handling waste and trash that may contain sharps.

## 6.1 ROUTINE PRACTICES

The use of routine practices is an approach to infection prevention and control practices in which all blood and body fluids are presumed to carry infectious pathogens. These practices are designed to reduce workers risk of exposure to blood, body fluids, or other infectious material and to prevent and control contamination and transmission of microorganisms in all dental offices.

- Routine Practices must be incorporated into the culture and daily practices of each dental provider.
- DHCW's are accountable to practice safely to protect patients and themselves by following the College of Dental Surgeons of BC (CDSBC) Infection Prevention and Control Guidelines.
- Routine practices apply to all Body Fluids, Non-Intact Skin, Mucous Membranes or Equipment and Surfaces Contaminated with Blood, Body Fluids, Tissues or other potentially infectious materials. In dental offices blood and body fluids present the most serious risk for infection exposure to dental staff, patients and workers.
- Personal Protective Equipment is used to prevent transmission of infectious agents from both patient-to-patient, patient-to-DHCW and DHCW to DHCW. DHCW's must ensure sufficient supplies of, and quick, easy access to PPE is provided.
- A Point of Care Risk Assessment must be performed by a DHCW **before each interaction with the patient** to determine which interventions are required to protect patients and staff from potential spread of microorganisms.

## 6.2 RISK LEVELS OF WORKERS

- *Low risk* –staff (receptionist) who rarely come into contact with potentially infected people or materials.
- *Moderate risk* –staff (janitor) who rarely come into contact with potentially infected people, but who may work in areas where infected people have been, or who handle potentially contaminated items (indirect contact)
- *High risk* – might mean staff (dentist, CDA, hygienist) who work directly with people who are or may be, infected.

## Workers Risk Exposure Determination

The following outlines a list of DHCW's assorted tasks and procedures, or groups of closely related tasks and procedures in which all employees have occupational exposure:

*Example:*

<b>Job Title</b>	<b>Location</b>	<b>Task/Procedure</b>	<b>Risk Level (low, moderate, or high)</b>
<i>Dentist</i>	<i>Operatory</i>	<i>Treating patients</i>	<i>high</i>
<i>CDA</i>	<i>Operatory</i>	<i>Treating patients</i>	<i>high</i>
<i>Hygienist</i>	<i>Operatory</i>	<i>Treating patients</i>	<i>high</i>
<i>Receptionist</i>	<i>Reception</i>	<i>Billing/booking</i>	<i>low</i>
<i>Janitorial</i>	<i>Entire office</i>	<i>Handling regulated waste</i>	<i>Low-moderate</i>

Preventing transmission of microorganisms to other patients is a patient safety issue, and preventing transmission to staff is an occupational health and safety issue.

## 7.0 ADMINISTRATIVE CONTROLS

Administrative controls have been implemented to reduce exposure, including changes to scheduling, job rotation and work procedures.

## 7.1 SCREENING PATIENTS

- Patients are screened with health questions when booking, when being confirmed, and when arrive at the office for their appointment. Remind them **to contact the office to reschedule their appointment** if they **develop any respiratory symptoms**.
- If a patient arrives for an appointment where their overall health status may suggest a serious infection risk to others in addition to a dental problem, proper PPE is required, and every effort should be made to separate them from other patients and other workers not involved in that patient’s management or treatment. Once isolated in a dedicated operatory, patients will then be triaged according to Appendix B.
- **(In the event of a pandemic warning, see Pandemic Management Plan which will be posted on BCDA website)**

## 7.2 HAND HYGIENE

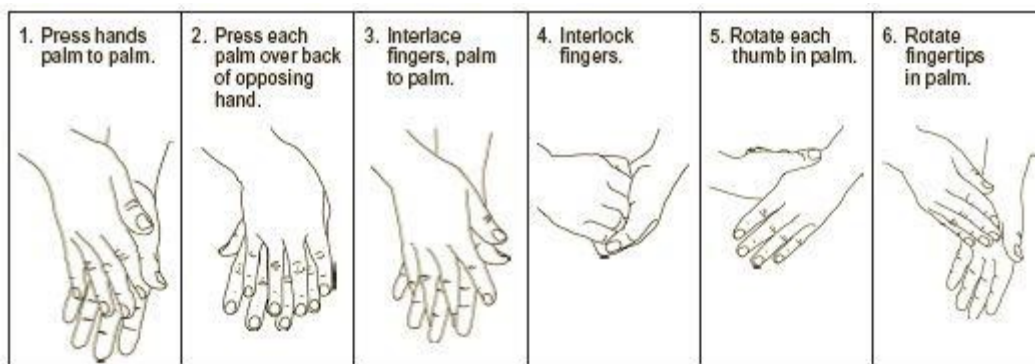
Hand washing is one of the best ways to minimize the risk of infection. Proper hand washing helps prevent the transfer of infectious material from the hands to other parts of the body — particularly the eyes, nose, and mouth — or to other surfaces that are touched.

Wash your hands immediately:

- Before and after every patient/patient environment contact.
- After contact with blood or body fluids, soiled items, equipment or garbage.
- Before eating, drinking, smoking, handling contact lenses, or applying makeup.
- Before and after glove use.
- Before performing aseptic procedures.
- Before handling food or medication.
- Before handling clean linen or supplies.
- Prior to using computers and other electronic devices.
- Use **Alcohol-based hand rub (ABHR) routinely** when hands not visibly soiled or contaminated with blood/body fluid.
- Use **Soap and water** when hands are visibly soiled or prior to contact with latex-sensitive patients.

Page 11 of the CDSBC’s Infection Prevention and Control Guidelines outline further information on hand hygiene

### *Hand Washing Procedure*



Use soap and warm running water. (Water does not have to be hot to be effective.) If water is unavailable, use a **waterless hand cleanser that contains at least 70% alcohol**. Follow the manufacturer's instructions on how to use the cleanser.

### 7.3 COUGH/SNEEZE ETIQUETTE

Patients and staff are expected to follow cough/sneeze etiquette, which is a combination of measures that minimizes the transmission of diseases via droplet or airborne routes.

Cough/sneeze etiquette includes the following components:

- Cover your mouth and nose with a sleeve or tissue when coughing or sneezing.
- Use tissues to contain secretions, and dispose of them promptly in a waste container.
- Turn your head away from others when coughing or sneezing.
- Wash hands regularly.
- Offer surgical masks to patients, or individuals accompanying patients, who exhibit influenza-like illness (ILI) symptoms.
- Educate workers on control measures, including hand washing.
- Post signs at entry points to instruct everyone about control measures.

### 7.4 PATIENT EDUCATION

- Includes hand and respiratory hygiene.
- Post signs with instructions to patients on control measures (e.g. cough/sneeze etiquette and hand washing).

### 7.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Determine the appropriate PPE to use to decrease exposure risk and prevent transmission of infectious agents: includes glove, masks, eye protection and gowns/aprons.

#### Gloves: non-sterile, single use

- **Always perform hand hygiene immediately prior to putting on gloves and after removing gloves.**
- Must be worn when coming into contact with blood or body fluids, mucous membranes, draining wounds or non-intact skin.
- Must be worn handling items or surfaces potentially contaminated with blood or body fluids.
- Gloves should be put on directly before the task for which gloves are required.
- Gloves must be removed and discarded immediately after the activity for which they were used.
- Gloves are not required for routine care when in contact with intact skin (i.e.) taking blood pressures.
- Change after touching a contaminated body site and before touching a clean body site or the environment.
- Do not wash and reuse gloves.
- Use latex-free gloves if patient or operator has latex allergy.
- Avoid touching equipment with latex gloves if patient has latex allergy.

#### Masks and Eye protection

- Wear to protect the mucous membranes of the nose, mouth and eyes during procedures/activities likely to generate splashes or aerosols of blood or body fluids, secretions or excretions.
- Do not allow mask to hang or dangle around neck.
- Face shields are not an appropriate substitute for masks.
- Remove mask by using ties or elastic.
- The outside of the mask and eye protection are considered contaminated.
- Clean hands after removing the masks and eye protection.



- If re-using mask, wash hands after donning.
- Remove and discard the eye protection after use if disposable; if re-usable, clean with a disinfectant after each removal.
- Protect eyes by wearing appropriate eyewear or face shields. Loupes are acceptable.
- In the case of a respiratory pandemic, if aerosols will be produced during treatment, mask and face shield or safety glasses are required to be worn by clinical staff.

### Gowns/Uniforms/Scrubs

- Uniforms and scrubs worn during patient care procedures **should not** be worn outside the dental office.

## 8.0 ENVIRONMENTAL CONTROLS

Measures implemented to reduce the risk transmission of infectious agents to patient and dental care providers: includes patient care equipment, cleaning practices and engineering controls such as point-of-care sharps containers and waste management

### 8.1 PATIENT CARE EQUIPMENT

- **Critical items** require cleaning followed by sterilization. \*
- **Semi-critical items** require cleaning followed by sterilization or high-level disinfection after each use. Sterilization is the preferred method. \*
- Replace items that are broken, torn, cracked or malfunctioning.
- Gross soil must be removed before the instruments can be cleaned and sterilized.
- Discard single use items and do not reuse.
- Wear appropriate PPE when handling, cleaning and disinfecting soiled equipment.

\*- Refer to Page 23 of the CDSBC's IPCG for a list of Critical and Semi-critical items

### 8.2 ENVIRONMENTAL CLEANING

- **Clinical contact surfaces** in the patient area should be cleaned and disinfected with a low-level disinfectant (e.g. household bleach diluted 1:50 or accelerated hydrogen peroxide) between patients and at the end of the day. Gloves should be worn while cleaning and disinfecting and while handling waste/garbage to prevent exposure to infectious agents and hazardous chemicals.
- **Do not apply cleaning chemicals by aerosol or trigger sprays** to prevent inhalation of hazardous chemicals.
- Alternatively, plastic barriers can be used to cover clinical contact surfaces, especially surfaces that are difficult to clean/disinfect. These barriers should be discarded and replaced after each patient.
- Place biohazardous waste (items saturated with blood) in an appropriate biomedical waste container.

### 8.3 SHARPS

- Sharps must be kept out of reach of patients.
- Clearly labelled puncture-resistant sharps disposal containers must be readily available in all areas.
- Sharps must be discarded immediately after use.
- If it is necessary to recap needles during longer procedures requiring further local anaesthetic, do so in an approved safe manner.
- Scalpel blades must be removed using forceps.
- Never fill a sharps container more than  $\frac{3}{4}$  full.
- Never leave a sharp protruding from the sharps disposal container.
- Sharps must only be released to an approved biomedical waste carrier for disposal.
- After reviewing the evidence and recommendations from the College of Dental Surgeons of BC, this office has elected not to use the only available and approved



Safety Engineered Needle by Health Canada, the Septodont Ultra Safety Plus XL, as it has been demonstrated to be unsuitable for intra-oral local anaesthetic administration. Any new and approved model will be reviewed for use when available.

#### **8.4 HAZARDOUS WASTE MANAGEMENT**

- Refer to the BCDA Best Practice for Managing Dental Wastes for the Dental Team.

#### **8.5 BLOOD/BODY FLUID SPILLS**

- Wear appropriate PPE.
- Absorb excess fluid with paper towels and discard in biohazardous waste container.
- Clean area first, and then disinfect the area with a low-level disinfectant (e.g. household bleach diluted 1:50 or accelerated hydrogen peroxide).

#### **9.0 WORKER EDUCATION AND TRAINING**

Workers will receive training in the following:

- Point of care risk assessment and routine practices and additional precautions related to the risk of exposure to blood and body fluids.
- Safe work procedures to be followed, including hand washing and cough/sneeze etiquette.
- Location of washing facilities, including dispensing stations for ABHR's.
- How to seek first aid.
- How to report an exposure to blood or body fluid exposure.
- Office protocol to follow in an exposure to blood or body fluid exposure. (*Appendix D: Blood/Body Fluids Exposure Protocol for Dental Health Care Workers*)
- Orientation to the employer's Exposure Control Plan.

#### **10.0 HEALTH MONITORING**

Dental staff should advise the dentist of any pre-existing chronic infectious condition or illness.

If a pandemic is declared dental office staff must promptly report any symptoms of illness to the dentist or the responsible person. Dental health care workers' ill with influenza-like illness (ILI) will be required to stay at home. If they develop symptoms of ILI while at work they will be required to leave the workplace and should only return to the workplace when they have recovered from the ILI and no longer exhibit symptoms.

#### **11.0 RECORD KEEPING**

The responsible person, Vohn Rosang, will keep records of instruction and training provided to workers regarding blood or body fluid exposure, as well as exposure reports and first aid.

#### **12.0 ANNUAL REVIEW**

The responsible person, Vohn Rosang, will review the Exposure Control Plan annually with all dental office staff and update it as necessary.

#### **REFERENCES:**

CDSBC Guidelines: Transitioning Oral Healthcare to Phase 2 of the COVID-19 Response Plan May 15th, 2020

CDSBC Infection Prevention and Control Guidelines July 2012