



# INFECTION PREVENTION & CONTROL (IPAC) PLAN

JUNE 2020 VERSION 2.1

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### Introduction

Health care associated infections for healthcare workers (HCW) and clients are a safety issue for both parties. To protect the safety of our key stakeholders and reduce the costs associated it is important to reduce the risk of infections before they occur. Infection prevention and control programs (IPAC) have demonstrated results showing that at least 20% of infections have been eliminated using these programs. The goal of our infection prevention and control program is to identify and reduce the risk of infections. We accomplish this by various methods including:

- Risk assessment
- Education and Training
- JOHSC and Client Safety Committees.

### Outbreak and/or Cluster Management Legislation

Health care workplaces must adhere to requirements under the Occupational Health and Safety Act (OHSA) and its Regulations, and this applies to measures needed to protect workers from the risk of COVID-19. Employers, supervisors and workers have rights, duties and obligations under the OHSA. Specific requirements under the OHSA and its regulations are available at: Occupational Health and Safety Act:

<https://www.ontario.ca/laws/statute/90o01> Ontario Regulation 67/93 Health Care and Residential Facilities: <https://www.ontario.ca/laws/regulation/930067>

### Organizational Risk Assessment

A recommended practice is to conduct an Organizational Risk Assessment (ORA). An ORA is a systematic approach to assessing the efficacy of control measures that are in place to mitigate the transmission of infections in the healthcare setting. Engineering control measures include physical barriers for screening and point of care alcohol-based hand rub (ABHR), administrative controls, such as policies and procedures regarding screening and appropriate selection and use of personal protective equipment (PPE). The ORA is central to any organization's preparation and planning to protect HCWs. Organizations have a responsibility to provide education and training to HCWs regarding the organization's ORA, including guidance around the use of PPE, environmental cleaning and engagement of the Joint Health and Safety Committee.

### Point of Care Risk Assessment

A point of care risk assessment (PCRA) assesses the task, the client and the environment. A PCRA is a dynamic risk assessment completed by the HCW before every client interaction to determine whether there is risk of being exposed to an infection. Performing a PCRA is the first step in Routine Practices, which are to be used with all clients, for all care and for all interactions. A PCRA will help determine the correct PPE required to protect the health care worker in their interaction with the client and client environment.

See addendum for Point of Care Risk Assessment/PPE Selection Guide.

### Application of the Hierarchy of Hazard Controls

According to the U.S. Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health, (NIOSH) the fundamental method for protecting workers is through the application of the hierarchy of hazard controls. The levels of control range from the highest levels considered most effective at reducing the risk of exposure (i.e. elimination and substitution) to the lowest or last level of control between the worker and the hazard (i.e. PPE). The application of the hierarchy of hazard controls is a recognized approach to containment of hazards and is fundamental to an occupational health and safety framework.

An understanding of the strengths and limitations of each of the controls enables organizations to determine how the environment (i.e. infrastructure, equipment, processes and practices) increases or decreases a HCW's risk of infection from exposure to a pathogen within the setting. Elimination and substitution are the most effective means in the hierarchy of controls, but are not often feasible or possible to implement, particularly in case of infectious diseases or pandemics.

### Engineering and System Control Measures

Engineering control measures reduce the risk of exposure to a pathogen or infected source hazard by implementing methods of isolation or ventilation. Engineering controls reduce or eliminate exposure by isolating the hazard from the employee and by physically directing actions to reduce the opportunity for human error. Examples include rigid barriers at the interface between the client and the HCWs at reception and triage and alcohol-based hand rub.

### Administrative Control Measures

Administrative controls are measures to reduce the risk of transmission of infections to HCWs and clients through the implementation of policies, procedures, training and education.

Effective administrative control measures to prevent the transmission of infection require the support of leadership in the organization, in consultation with management and HCWs through the Joint Health and Safety Committee to provide the necessary organizational procedures, resources, education and training to effectively apply the controls and the commitment of HCWs and other users to comply with their application.

Examples of administrative controls include active screening, passive screening (signage) and restricted visitor policies. In addition, administrative controls include policies regarding restricting entrances, cohorting of staff and clients, and designated areas for screening or providing supports to clients.

### Personal Protective Equipment

Although PPE controls are the most visible in the hierarchy of controls, PPE controls are the last tier in the hierarchy and should not be relied on as a stand-alone primary prevention program. The PPE tier refers to the availability, support and appropriate use of physical

barriers between the HCWs and an infectious agent/infected source to minimize exposure and prevent transmission. Examples of PPE barriers are gloves, gowns, facial protection (including surgical masks and N95 respirators) and/or eye protection (including safety glasses, face shields or masks with visor attachments).

The organization plays a critical role in ensuring HCWs have access to appropriate PPE for the task to be performed and the necessary education and training to ensure competency on the appropriate selection, use, and disposal of PPE to prevent exposure to infection.

### Client Accommodation

Clients with suspected or confirmed case of viral infection related to the pandemic should be cared for in a single room with the door closed. The collection of a nasopharyngeal swab or a throat swab is NOT considered an AGMP.

### Aerosol Generating Medical Procedures, Procedures Generating Droplets/Aerosols

1. Endotracheal intubation, including during cardio-pulmonary resuscitation
2. Cardio-pulmonary resuscitation
3. Open airway suctioning
4. Bronchoscopy (diagnostic or therapeutic)
5. Surgery and autopsy
6. Sputum induction (diagnostic or therapeutic)
7. Non-invasive positive pressure ventilation for acute respiratory failure (CPAP, BiPAP3-5)
8. High flow oxygen therapy

Source: Adapted from Routine Practices and Additional Precautions in Ontario In All Health Care Settings, 3rd edition, Provincial Infectious Diseases Advisory Committee (PIDAC). Available at: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/routinepractices-additional-precautions>

### Process Surveillance

Ongoing inspections, audits, and surveys monitor compliance by staff and clients with the expectations of the IPAC system. Further, we monitor all sites for possible infections and diseases that affect the health of our clients, staff, and visitors. Our role includes making informed decisions, performing data analysis, and providing results to staff who implement quality improvements.

Control measures are initiated when clusters of infections in clients or employees are identified by surveillance. Outbreak management procedures are implemented at the direction of our Joint Occupational Health and Safety Committee or Client Safety Committee.

### Education and Training

We provide education to our clients, staff, and students about common infections. Our staff are provided with mandatory infection prevention and control trainings as new employees

and once annually thereafter. Our clients are provided with information quarterly by way of newsletters, news bulletins, and annually at care plan meetings.

### JOHSC and Client Safety Committees

Our Committee meets on a regular basis to ensure we are keeping our clients safe. We review all elements of our Infection Control, Health and Safety and Service Delivery policies and procedures annually and strive for continuous improvement.

For every client and/or client environment encounter, apply the Four Moments for Hand Hygiene <https://www.publichealthontario.ca/-/media/documents/bp-hand-hygiene.pdf?la=en>

TRAVERSE INDEPENDENCE INFECTION PREVENTION & CONTROL PLAN

STRATEGIC PRIORITY	GOAL	OBJECTIVE	OUTCOME(S)	TIMELINE	MEASURE/INDICATOR
CLIENT AND STAFF SAFETY	All policies and procedures relating to IPAC are reviewed once annually	All policies and procedures are up to date and reflect best practice guidelines	Key stakeholders have access to current policies and procedures that reflect best practice	Ongoing	100% of the policies and procedures relating to IPAC are reviewed once annually
	Hand hygiene policies and procedures are adhered to by all staff on a consistent basis	Written policies and procedures are readily available to staff	Hand hygiene practices are always adhered to	Ongoing	100% of staff are trained during orientation and then once annually on safe hand hygiene practices
		Annual education on hand hygiene techniques are completed by all staff	Training done annually ensures that all staff are aware of hand hygiene practices		
	Routine practices are adhered to by all staff on a consistent basis	Written policies and procedures are readily available to staff	Routine practices are always adhered to	Ongoing	100% of staff are trained during orientation and then once annually on routine practices
		Annual education and training on routine practices is completed by all staff	Training done annually ensures that all staff are aware of routine practices		
	Process surveillance is completed at all sites to verify that all standards around IPAC are being followed	A program to measure compliance with hand hygiene is in place	Ongoing audits are in place to measure compliance with hand hygiene policies and procedures	Ongoing	100% of the surveillance expectations are completed
		A program to measure compliance with application of routine practices by staff is in place	Ongoing audits are in place to measure compliance with policies and procedures regarding routine practices	Ongoing	100% of the surveillance expectations are completed
		Cleaning practices in the workplace environment are to be monitored with results reported back to the H&S Committee and the Client Safety Committee.	Ongoing audits are in place to measure compliance with policies and procedures regarding environmental cleaning and maintenance.	Ongoing	100% of the surveillance expectations are completed

**TRAVERSE INDEPENDENCE INFECTION PREVENTION & CONTROL PLAN**

STRATEGIC PRIORITY	GOAL	OBJECTIVE	OUTCOME(S)	TIMELINE	MEASURE/INDICATOR
	All areas of environmental hazards are managed by maintaining a clean and safe environment in the workplace	Policies are available and adhered to address infection prevention and control in areas of cleaning, laundry and waste, safe food handling and storage.	Environmental hazards are minimized through effective environmental cleaning practices	Ongoing	100% of the policies regarding environmental cleaning and safety are adhered to
	Management has access to clear directives and policies to manage and investigate an outbreak and/or cluster event	Clear policies and procedures on managing an outbreak are easily available to management	Outbreaks of infectious diseases are managed and contained	Ongoing	100% of all outbreaks are managed according to the policies and procedures
		Clear policies on immunization and reporting to work when sick are published	Staff are aware of the polices regarding immunization and that if there is an outbreak and they are not immunized they will not be able to report to work	Ongoing	100% of staff are aware of the immunization policy and sign off at the point of hire
		Sharps injury prevention program/training is in place	Staff work with sharps in a safe manner and do not sustain a sharps injury	Ongoing	100% of staff who handle sharps receive the sharps injury prevention training.
	Adequate resources including staff and supplies are	Easily accessible personal protective equipment (PPE) is in place at all sites	Staff always use PPEs when indicated	Ongoing	100% of staff always use PPEs when indicated.



**TRAVERSE INDEPENDENCE INFECTION PREVENTION & CONTROL PLAN**

STRATEGIC PRIORITY	GOAL	OBJECTIVE	OUTCOME(S)	TIMELINE	MEASURE/INDICATOR
	available at all locations to support the IPAC program	Cleaning supplies and equipment are always available to all staff	All locations are maintained in a clean and safe manner	Ongoing	100% of sites always have appropriate cleaning supplies and equipment available
		Minimum staffing requirements are met at all locations so adequate staff are available to practice infection prevention and control measures.	All expectations of the IPAC are always met	Ongoing	Minimum staffing levels are maintained 100% of the time
	Education and training is offered to all staff on an annual basis	IPAC is a standing agenda item for H&S Committee and Client Safety Committee	IPAC is discussed at both the H&S Committee meetings and the Client Safety Meeting	Ongoing	100% of the meetings include a discussion on IPAC
		Mandatory training on all IPAC expectations at orientation and once annually thereafter is in place for all employees	All staff are aware of the expectations of the IPAC system	Ongoing	100% of the staff receive training on all facets of the IPAC system.

Based on the Best Practices for Infection Prevention and Control Program in Ontario – Provincial Infection Disease Advisory Committee (PIDAC), in all health care settings 3<sup>rd</sup> edition.

## References

ASGE Ensuring Safety in the Gastrointestinal Endoscopy Unit Task Force, Calderwood AH, Chapman FJ, et al. Guidelines for safety in the gastrointestinal endoscopy unit. *Gastrointest Endosc.* 2014;79(3):363– 372. doi:10.1016/j.gie.2013.12.015. Ontario Agency for Health Protection and Promotion, Provincial Infectious Disease Advisory Committee. Annex B: Best Practices for Prevention of Transmission of Acute Respiratory Infection. Annexed to: Routine Practices and Additional Precautions in All Health Care Settings. Toronto, ON: Queen's Printer for Ontario; 2013. Available from: <https://www.publichealthontario.ca/-/media/documents/bpprevention-transmission-ari.pdf?la=en>. Smith JD, MacDougall CC, Johnstone J, Copes RA, Schwartz B, Garber GE. Effectiveness of N95 respirators versus surgical masks in protecting health care workers from acute respiratory infection: a systematic review and meta-analysis. *CMAJ.* 2016;188(8):567-74. Tran K, Cimon K, Severn M, Pessoa-Silva CL, Conly J. Aerosol generating procedures and risk of transmission of acute respiratory infections to healthcare workers: a systematic review. *PLoS One.* 2012;7(4):e35797.









Addendum





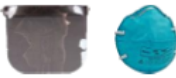
## Point of Care Risk Assessment: PPE Selection Guide

Health care workers must perform a Point of Care Risk Assessment before each patient integration. Here is a guide for the typical PPE required to protect you from exposure. Patient and situation specific factors must be considered when completing the risk assessment.

For questions about this resource, please contact: hmmscovid19@hmms.on.ca

Hazard	PPE	Indication
Will my hands come into contact with blood/bodily fluids?	Vinyl Gloves 	Appropriate for most tasks that require gloves.
	Nitrile Gloves 	For situations with large amounts of blood/bodily fluids (i.e. ED trauma cases, ICU), or for bodily fluids from patients on cytotoxic precautions.
	Specialty Gloves 	For sterile procedures, medical device reprocessing and pharmaceutical preparations.
Will my hands come into contact with chemicals, medications or cleaning solutions?	Vinyl Gloves 	Appropriate for most pharmaceuticals and common cleaning chemicals (i.e. equipment wipes, Oxivir, Percept).
	Nitrile Gloves 	Required for sporicidal cleaners, certain chemicals in the clinical labs or cytotoxic precautions (hazardous drugs).
Will my clothes come into contact with blood/bodily fluid?	Level 2 Gown 	Most commonly used gowns that are laundered and returned to hospital.
	Level 3 or 4 	For specific use in the OR, MDR and ED including surgical care, trauma care and hazardous drugs/cytotoxic precautions.
Will my mouth, nose or eyes be exposed to a sneeze, cough, splash/spray of bodily fluids or chemicals?	Level 1 Procedure or Surgical Mask 	Provides barrier protection for procedures with low amounts of blood, body fluid spray or aerosols. Standard for surgical and procedural uses. Resistant to sprays up to 80 mmHG (low arterial pressure).

## Point of Care Risk Assessment: PPE Selection Guide

			<p>Particle filtration efficiency (PFE) <math>\geq 95\%</math> 0.1 MICRON.</p> <p><b>Note:</b> A Level 1 face mask with a full face shield provides appropriate protection for Droplet/Contact Precautions and will keep your mask dry and intact.</p> <p><b>Note:</b> Eye protection must be worn in combination with any mask. <i>*Personal eye glasses do not count as eye protection.</i></p> <p><b>Note:</b> A face shield helps keep a respirator clean and provides an additional barrier protection.</p>
	Level 2 Procedure or Surgical Mask	 <p>or</p>	<p>Provides barrier protection from exposure to moderate levels of fluids, sprays or aerosols. Commonly used for patients in Droplet Precautions. Resistant to sprays up to 120 mmHG (average arterial pressure). Particle filtration efficiency (PFE) <math>\geq 98\%</math> 0.1 MICRON.</p>
	Level 3 Procedure or Surgical Mask		<p>Provides maximum barrier protection from exposure to highly pressurized and heavy levels of fluids, splashes/sprays or aerosols that can be generated during trauma or surgical procedures in the OR. Resistant to sprays up to 160 mmHG (high arterial pressure). Particle filtration efficiency (PFE) <math>\geq 99.9\%</math> 0.1 MICRON.</p>
Will my mouth, nose or eyes be exposed to airborne hazards (i.e. airborne precautions, high risk AGMP, query confirmed COVID-19 positive AGMP, or specific chemical hazard requiring an N95?	Respirator		<p>A fit tested N95 respirator (or equivalent) will protect from airborne particulate hazards.</p> <p><b>Note:</b> You must only wear the model that you are fit tested to.</p> <p><b>Note:</b> Eye protection must be worn in combination with any respirator. <i>*Personal eye glasses do not count as eye protection.</i></p> <p><b>Note:</b> A face shield helps keep a respirator clean and provides an additional barrier protection.</p>