

# Infection Prevention and Control



# Infection Prevention and Control Program

- IPAC program consists of three healthcare professionals
- IPAC department is located on the 9<sup>th</sup> floor and is available Monday to Friday (8:00 am to 4:30pm); weekends on call
- The goal of our Infection Prevention and Control program is to:
  - identify and reduce the risk of hospital-acquired infections
  - prevent the transmission of disease between patients, healthcare workers, staff and visitors through surveillance, education, consultation, outbreak investigation, development of policies and procedures

# What does IPAC do?

Diverse role: IPAC is involved in clinical and non-clinical work stream.

Clinical work stream:

- Patient management
- Surveillance
- Statistical calculations for mandatory reporting
- Consultation
- Staff education
- Policies and procedures
- Audit and monitoring
- Incident management/investigation

# What Does IPAC do?

Non-clinical work stream:

- Environmental monitoring/product approval
- Construction/renovation
- Reprocessing /decontamination practices
- Purchasing of new equipment
- Emergency planning
- Liaising externally – Waterloo Wellington Local Health Integration Network (WWLHIN)/Waterloo Region Public Health/Ministry of Health and Long-term Care (MOHLTC)
- Supports other services, e.g. Pest Control & Waste Management, Occupational Health
- Research into new technologies

# Resources

IPAC leaves notes in the charts of patients requiring isolation/ de-isolation/ swabs etc. These 'infection control notes' can be accessed via the *Process Interventions* screen in *NUR*.

The screenshot displays the St. Mary's General Hospital Intranet. The top navigation bar includes links for Home, SMGH Website, Feedback, Site Map, and a search function. The main content area is titled 'Policies & Procedures Online Manual' and features a search box and a list of folders. The folders listed are: Diagnostics, Infection Control, Interprofessional patient care, Minimal Lift Policy & Program, Patient Mechanical Lift Inspection & Utilization Policy, Perfusion, Pharmacy, Spiritual Care, Sterile Processing Department, Call Bell Safe Handling Policy, and Consent to Treatment. A red arrow points to the 'Infection Control' folder, and another red arrow points to the 'Policies & Procedures Online Manual' link in the top navigation bar.

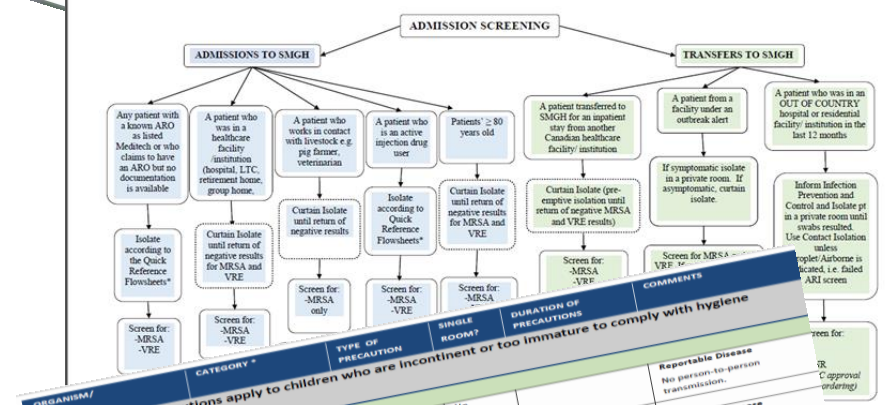
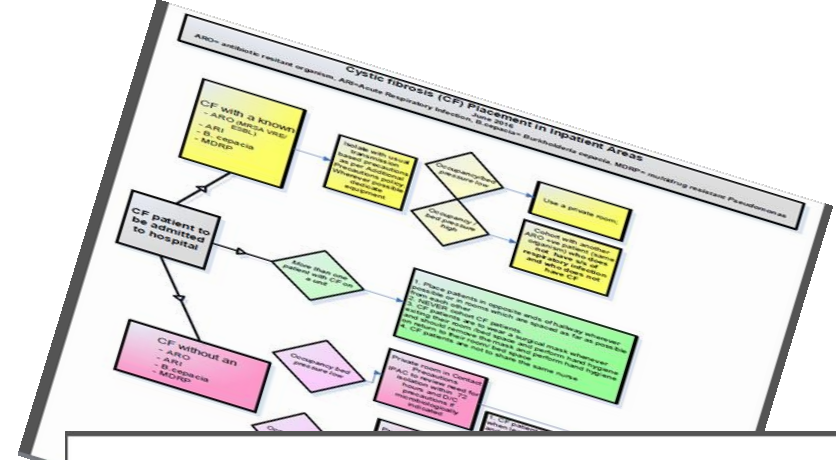
IPAC policies are available on the Intranet. Visit:

- Forms, Policies, Procedures
- Policies and Procedures Online Manual
- Select Patient Care
- Select Infection Control or type in the search box and press Search

IPAC has provided other resources that may be helpful in your everyday work, including, a disease specific table, quick reference flowcharts, criteria for admission screening and information leaflets for patients. All just a few clicks away!

To access them visit the Intranet:

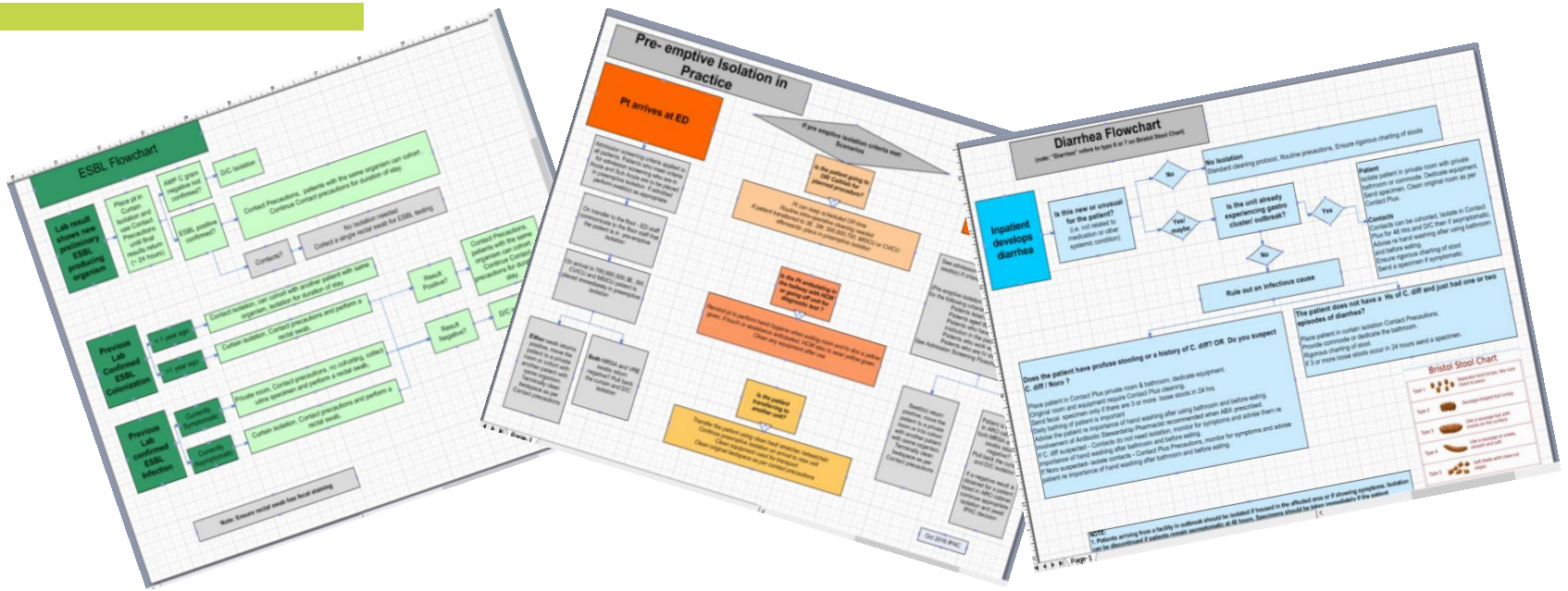
Select [Programs and Services](#)  
 Select [Infection Control Resources](#)



**\* = Paediatric precautions apply to children who are incontinent or too immature to comply with hygiene**

ORGANISM/ DISEASE	CATEGORY *	TYPE OF PRECAUTION	SINGLE ROOM?	DURATION OF PRECAUTIONS	COMMENTS
<b>FIFTH DISEASE</b>	See Erythema Infectiosum	RP	No		Reportable Disease No person-to-person transmission.
<b>FOOD POISONING/ FOOD-BORNE ILLNESS</b>	<i>Clostridium botulinum</i> (Botulism)	RP	No		Reportable Disease Notify Infection Control
	<i>Clostridium perfringens</i>	Contact	Yes	Continue precautions until Salmonellosis or E. coli O157:H7 are ruled out.	
	<i>Salmonella</i> or <i>Escherichia coli</i> O157:H7 in paediatric or incontinent adult if stool cannot be contained Other causes	RP	No		
<b>FRANCISELLA TULARENSIS</b>	See Tularemia				
<b>FURUNCULOSIS</b> <i>Staphylococcus aureus</i>	See Abscess	RP	No		No person-to-person transmission.
	Gas gangrene due to any bacteria	Contact	Yes	Continue precautions until <i>C. difficile</i> and norovirus or other viral agents ruled out. Continue precautions for duration of illness.	Outbreaks are reportable Notify Infection Control See specific organism if identified.
<b>GANGRENE</b>	Acute infectious	Contact	Yes		
<b>GASTROENTERITIS</b>	Paediatric* and incontinent/noncompliant adult	Contact	Yes		
<b>GERMAN MEASLES</b>	See Rubella	RP	No		Continue precautions until stools are formed
	Adult	Contact	Yes		Reportable Disease
<b>GIARDIASIS</b> <i>Giardia lamblia</i>	Paediatric* and incontinent or noncompliant adult	Contact	No		

March 2016



These resources are just some examples of what can be accessed on the intranet by any health care worker.

We can't cover *every* scenario, but these resources provide direction for the most frequently asked questions and we encourage you to use them.

We update these resources as best practice guidance or hospital policy changes.

# Hand Hygiene

## **Why do I need to clean my hands?**

Good Hand Hygiene is the single most important method of preventing the transmission of infections.

“Your 4 Moments for Hand Hygiene” were created to help you identify times when you should be cleaning your hands.

## **Why do I need to clean my hands so often?**

- There are many different opportunities throughout the day for your hands to become contaminated.
- Healthcare is a ‘hands on’ business
- Hospital patients are more vulnerable to infection



# Your 4 Moments for Hand Hygiene



## BEFORE initial patient/patient environment contact

- **When:** Shaking hands, helping patient move around, washing, taking pulse/BP
- **Why:** To protect the patient/patient environment from harmful germs carried on your hands



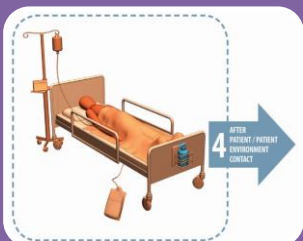
## BEFORE aseptic procedure

- **When:** Changing a dressing, inserting a catheter, chest tube removal and care, adjusting an IV
- **Why:** To protect the patient against harmful germs, including the patient's own germs entering his or her body or prevent contamination of the invasive device



## AFTER body fluid exposure risk

- **When:** Emptying a catheter bag, cleaning a commode or bed pan, blowing nose/wiping tears
- **Why:** To protect yourself and the healthcare environment from harmful patient germs



## AFTER patient/patient environment contact

- **When:** Changing bed linen, touching a bed rail or curtain, clearing a bedside table
- **Why:** To protect yourself and the next patient from harmful patient germs

# Soap & Water or ABHR?

- ABHR (alcohol based hand rub) is the preferred method of Hand Hygiene in healthcare settings, unless hands are visibly soiled.
- You should use enough gel so that your hands remain wet for 15 seconds of rubbing (1 or 2 squirts)
- Soap and water should be used when hands are visibly soiled, or after contact with a patient with C. difficile or their environment.
- Lather hands for a minimum of 15 seconds prior to rinsing. Rinse of all soap and then dry hands thoroughly.

# Other Considerations

## Nails

Long nails have been shown to harbour bacteria and damage gloves  
False nails have been implicated in the transmission of gram negative bacteria.

Nails should be **NATURAL, SHORT and CLEAN**

## Skin

Use moisturizer on your skin frequently throughout the day to prevent skin breakdown.

## Jewelry and clothing

Be aware -jewelry can catch/ tear gloves and also harbour bacteria.  
No one wants wet sleeves! Wrist jewelry and long sleeved clothing discourages good hand hygiene.

# What are Routine Practices?

Routine infection prevention and control practices are to be used with **all patients** during **all episodes of care** to prevent the transmission of microorganisms.



# Routine Practices Includes:

## Risk Assessment

- The patient's status can change so this is always done before each interaction with a patient or their environment to determine which interventions are required for that interaction to be safe, e.g. if patient is coughing or requires assistance with toileting, you may need to wear PPE

## Hand Hygiene

- The most important and effective infection prevention and control measure to prevent the spread of health care associated infections
- Clean your hands at all 4 Moments for Hand Hygiene, rubbing for at least 15 seconds.
- Nails should be short, natural and clean.

## Control of the Environment

- Measures that are built into the infrastructure of a health care setting
- E.g. Appropriate accommodation and placement, patient equipment in good repair, effective cleaning practices

## Administrative Controls

- Measures the health care setting puts in place to protect staff and patients from infection
- E.g. Education and training, respiratory etiquette, healthy workplace policies where staff stay home when they are sick, immunization, policies and procedures

## Availability of appropriate PPE

- PPE places a barrier between the infectious source and one's own mucous membranes, airways, skin and clothing. Selection of PPE is based on the risk assessment
- PPE should be put on just prior to the interaction with the patient and removed immediately afterwards. Note gloves are always used in addition to, NOT IN PLACE OF, good hand hygiene.








# What are Additional Precautions?

- Sometimes referred to as “isolation precautions”
- Usually disease or symptom specific
- Based on the mode of transmission

Include:

- Routine Practices
- Specific Accommodation (e.g. private room, negative pressure)
- Signage
- Personal Protective Equipment
- Dedicated equipment
- Additional/specific cleaning measures
- Limited transport
- Communication

# Additional Precautions

 <p><b>CONTACT PRECAUTIONS</b>  <small>Visitors: Please follow directions below</small></p>	<ul style="list-style-type: none"> <li>• Gown and gloves</li> <li>• MRSA, ESBL, other infections spread by direct and indirect contact</li> </ul>
 <p><b>CONTACT PLUS PRECAUTIONS</b>  <small>Visitors: Please follow directions below</small></p>	<ul style="list-style-type: none"> <li>• Gown and gloves • Additional cleaning</li> <li>• VRE, C. difficile, Norovirus, gastroenteritis</li> </ul>
 <p><b>DROPLET CONTACT PRECAUTIONS</b>  <small>Visitors: Please follow directions below</small></p>	<ul style="list-style-type: none"> <li>• Mask with face shield • Gown and gloves</li> <li>• Pneumonia, Influenza, Bacterial meningitis, other infections spread by droplets</li> </ul>
 <p><b>DROPLET CONTACT PLUS PRECAUTIONS</b>  <small>Visitors: Please follow directions below</small></p>	<ul style="list-style-type: none"> <li>• Mask with face shield • Gown and gloves • Additional cleaning</li> <li>• Used when pt meets criteria for both Droplet Contact AND Contact Plus precautions</li> </ul>
 <p><b>AIRBORNE PRECAUTIONS</b>  <small>Visitors: Please speak to Nurse before entering          Negative Pressure Isolation Room:          Keep door closed at all times</small></p>	<ul style="list-style-type: none"> <li>• N95 respirator</li> <li>• Tuberculosis, Measles</li> </ul>
 <p><b>AIRBORNE CONTACT PRECAUTIONS</b>  <small>Negative Pressure Isolation Room:          Keep door closed at all times          Visitors: Please speak to Nurse before entering          Nurses: Perform a daily check to ensure that the negative pressure is functioning properly</small></p>	<ul style="list-style-type: none"> <li>• N95 respirator • Gown and Gloves • Only immune staff to enter</li> <li>• Chicken pox, disseminated Zoster</li> </ul>
 <p><b>AIRBORNE + DROPLET CONTACT PRECAUTIONS</b>  <small>Negative Pressure Isolation Room:          Keep door closed at all times          Visitors: Please speak to Nurse before entering          Nurses: Perform a daily check to ensure that the negative pressure is functioning properly</small></p>	<ul style="list-style-type: none"> <li>• N95 Respirator • Face shield • Gown and Gloves</li> <li>• MERS CoV, Avian flu, Novel influenza virus, Current alert organism/emerging infection unless other specific guidance is provided</li> </ul>

# Additional Precautions

- In some cases a patient may require several types of Additional Precautions; these may not always be discontinued at the same time
- IPAC will place a note in the chart of those patients requiring Additional Precautions
- Physicians and Nursing are permitted to initiate isolation precautions if they suspect it is needed



# Quick Tips for Using PPE

- ALWAYS perform HH before donning PPE.
- Gowns should always be tied at the neck and the waist.
- Firm the face mask around your nose using the metal piece in the mask.
- Always pull gloves over the cuff of the gown.
- Do a seal check of your N95 every time you put it on.
- Remove PPE in a way that prevents contamination of your clothes and body and reduces dispersion of microorganisms into the air.
- Always perform HH after removing PPE.
- With Airborne Contact always perform HH after removing gown and gloves before removing the N95 respirator and again afterwards.

# What is Pandemic Influenza?

- Pandemic influenza can occur when a novel (new) strain of influenza emerges and spreads quickly and widely.
- Pandemics occur in a cyclical pattern however, it is impossible to know when the next pandemic will occur.
- Pandemics are classified based on the severity of the disease and how easily it is transmitted from person to person. Some pandemics will have a greater impact than others.

# My Role in a Pandemic?

- St. Mary's will follow the Regional Pandemic Plan
- Clear communication will be provided to all staff
- Get immunized as soon as a vaccine is available. As a healthcare worker it is your responsibility to protect your patients.
- Additional response measures may be required which could include:
  - Additional PPE requirements
  - Enhanced cleaning
  - Cohorting of staff or patients, or the creation of "outbreak units"
  - Screening of patients as they arrive
  - Other responses as directed by IPAC

# Occupational Health

- Infections can be transmitted both from patient to healthcare worker AND from healthcare worker to patient
- All staff exposures must be reported to Occupational Health
- Some exposures occurring after hours may need to be followed up via Emergency Department
- Keep patients safe and consult Occ Health before working if you have the following:
  - Unexplained rash, open exposed skin lesions e.g. shingles, eczema
  - Fever/new cough
  - Diarrhea/ vomiting
  - Symptoms that could indicate TB, Shingles, headlice/scabies

# Occupational Health

- Staff in healthcare have a **professional responsibility** to be immunized. You may not develop symptoms because you are healthy but vulnerable patients in your care can still pick up an infection you don't even know you are carrying.
- Stay up to date with your immunizations and know your immunity.
- Know the risks, use the PPE provided and follow policy and procedures. They are designed to protect both you and the patient. In fact Healthcare workers have a **legal duty** to utilize the PPE that the employer provides so that they can work safely!

# This Concludes our Presentation

This presentation has covered basic principles of IPAC. There will be additional training for **non-clinical frontline** employees (housekeeping, engineering) on e-lime – mandatory every other year

**Clinical frontline** employees need to complete a set of e-lime training sessions as soon as possible. Those modules are specific to your role and cover in detail topics pertaining to AROs like MRSA and CPE, airborne organisms like TB and Varicella, management of CF patients and how the pregnant healthcare worker can work safely.