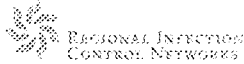


Routine Practices and Additional Precautions

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September 17, 2009



Giving Health a Helping Hand

Objectives



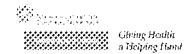
- Define and describe risk assessment as a key element of Routine practices and Additional Precautions
- Define and describe elements and application of Routine Practices
- Identify types and indications for use of PPE (gloves, gowns, face protection (masks and eye protection)).
- Define and describe elements and application of Additional Precautions

Basic Assumptions



- Adequate resources devoted to Infection Prevention and Control (IPAC)
- Hand hygiene program in place
- Adequate resources for cleaning and disinfection of environment and care equipment
- Regular education for IPAC
- Adequate PPE
- Access to IPAC advice and expertise

Accountability of Staff & Employers



- Staff are accountable to practice safely in manner that protects clients and residents and themselves by following established IPAC policies and procedures.
- Employers must ensure that equipment, materials and protective devices are provided and maintained in good condition-- Occupational Health and Safety Act (OH&S Act)

Risk Assessment



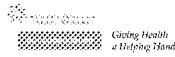
- Understand the process of risk assessment
- Apply the risk assessment process to Routine Practices

How does Risk Assessment Fit in to Care?



- **Risk assessment must be done before each interaction with a patient, resident or client.**
- This is the first step in Routine Practices
- Assists the worker to determine which interventions are required to prevent transmission

Steps in Risk Assessment



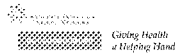
- Each worker must assess the anticipated risks of each interaction with the patient, resident or client:
 - Will I be exposing myself to blood or body fluids or items/surfaces contaminated with them? If yes....
 - What part of me will be exposed?
 - Hands?
 - Face?
 - Clothing or exposed arms?
 - If any part(s) exposed to contamination I need to protect myself!

Additional factors to consider



- How competent/experienced am I in performing the task?
- Will the patient/resident/client be cooperative while I perform the task?
- Has experience shown that this task can lead to exposure to blood or body fluids?

Routine Practices based on Risk Assessment



- Based on risk assessment, healthcare providers determine appropriate strategies such as:
 - Hand hygiene
 - Personal protective equipment (PPE)
 - Hands= gloves
 - Face= mask and eye protection
 - Clothing or arms= gown
 - Cleaning and disinfection of equipment or surfaces
 - Patient/resident/client placement to reduce the risk of transmission of microorganisms to and patient/resident/client.

Additional Strategies based on Risk Assessment



- Education of health care workers, patients/residents/clients and visitors
- Engineering controls
- Environmental controls
- Administrative controls

What Are Routine Practices?



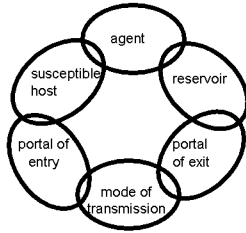
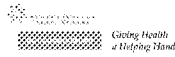
- “The system of infection prevention and control practices recommended by the Public Health Agency of Canada to be used with all patients, clients and residents during all care to prevent and control transmission of microorganisms in health care settings.”

Routine Practices



- Used with all patient/resident/clients during all patient/resident/client care and include:
 - Hand hygiene
 - Use of barriers (PPE) to prevent worker contact with patient/resident/client's blood, body fluids, secretion, excretions, non-intact skin or mucous membranes

Chain of Transmission



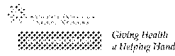
- Transmission occurs when the agent, in the reservoir, exits the reservoir through a portal of exit, travels via a mode of transmission and gains entry through a portal of entry to a susceptible host

Principles and Rationale



- RP based on assumption that ALL patients, clients and residents are potentially infectious.
- Consistent and appropriate use of RP by all health care providers with all resident encounters will lessen microbial transmission in the health care setting and reduce the need for Additional Precautions.

Risk of Transmission



- Health care providers must:
 - Assess the risk of exposure to blood, body fluids and non-intact skin
 - Identify the strategies that will decrease exposure risk and prevent the transmission of microorganisms
 - Incorporate risk assessment into daily practice
 - Have the support of Senior Management

Elements of Routine Practices (RP)



- Risk Assessment
- Hand Hygiene
- Environmental controls
- Administrative controls
- Barriers (PPE)

Environmental Controls



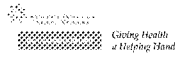
- Appropriate bed placement and spacing
- Cleaning of equipment used by patients\ clients\ residents
- Cleaning of care environment
- Point of care
 - Sharps containers
 - Hand hygiene ABHR dispensers
 - Adequate dedicated hand wash sinks

Administrative controls



- Policies and procedures
- Education of staff
- Healthy workplace policies
- Immunization
- Respiratory etiquette
- Monitoring of compliance with feedback
- Sufficient staffing levels

Personal Protective Equipment



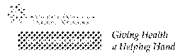
- Last in the hierarchy of controls
- Follows:
 - Risk assessment
 - Hand hygiene
 - Environmental controls
 - Administrative controls

Definition of Personal Protective Equipment PPE



- Definition: PPE is barriers i.e. clothing or equipment worn by staff for protection against hazards
- Includes: gloves, gowns, and face protection (to cover eyes, nose and mouth)-masks, goggles, face shields

Purpose of Barriers



- Barriers are used to prevent transmission of infectious agents both from resident to resident and from resident to staff
- Personal protective equipment places a barrier between the infectious source and staff mucous membranes, airways, skin and clothing

Negative Impacts of Improper Use of PPE



- Interference with quality of resident care
- Wastage and increased cost
- Staff less likely to perceive need to perform hand hygiene when wearing gloves
- Overuse may lead to shortages or inappropriate reuse
- Environmental concerns-disposal and laundry

Principles for Using Barriers



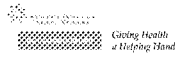
- Assess risk for exposure and then choose appropriate barriers to prevent exposure to infectious material.
- Choose well-fitting barriers.
- Put on barriers just prior to interaction or anticipated exposure risk
- Use barriers carefully to prevent contaminating yourself and/or the environment.
- Remove barriers carefully when you have completed the task, identifying which part is contaminated.
- Discard in regular waste.

Indications for Use of Barriers



- Use barriers when in likely contact with:
 - Blood
 - Bodily fluids (e.g.; urine, stool, vomitus, nose, rectal orifice, urinary orifice)
 - Non-intact skin (e.g.; rash, burn, incision)
 - Body tissue (e.g.; specimens)
 - Contaminated equipment and surfaces

Gloves



- Must be worn when it is anticipated that the hands will be in contact with:
 - Mucous membranes,
 - Non intact skin
 - Body tissues
 - Blood
 - Body fluids,
 - Secretions, excretions
 - Or items contaminated with the above

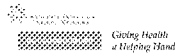
Selection of gloves



Based on risk analysis of:

- Type of setting
- Task to be performed
- Likelihood of exposure to body fluids
- Anticipated length of use of gloves
- Amount of stress on glove during use.
- Gloves are task specific and single use for the task

Appropriate Use of Gloves



- **Glove use does not replace hand hygiene!**
- Not required for routine resident care activities in which contact is limited to touching intact skin/clean clothing.
- Gloves should be put on directly before anticipated contact with body fluid or items contaminated with them.
- Reusable gloves are not to be used in patient/resident/client care activities

Appropriate Use of Gloves



- Remove or change gloves using designated process and perform hand hygiene
 - Between patient/resident/clients
 - If gloves become heavily soiled during care of the same patient/resident/client
 - Between dirty and clean tasks
 - Avoid touch contamination such as adjusting your glasses or touching your face with gloved hands

Appropriate Use of Gloves



- Once gloves are soiled they can become a mode of transmission to:
 - You
 - Other body sites on the patient/resident/client
 - Other patient/resident/clients
 - Environmental surfaces

Gowns



Indications for Use:

A long sleeve gown is recommended when it is anticipated that a procedure or care activity is likely to generate splashes or sprays of blood, body fluids, secretions, excretions

Gowns



- Gowns should be worn to protect the forearms and clothing of the worker from splashing and soiling with blood, body fluids and other body fluids.

Selection of Gowns



- Anticipated degree of contact with body fluids
- Potential for penetration with body fluids
- Gowns should be cuffed and long sleeved and offer full coverage of body front, neck to mid thigh or below

Appropriate Gown Use



- Must be changed using designated process between resident uses.
- Put on immediately before the task and worn properly
- Removed immediately after task in manner to prevent contamination
- Discard used gown into regular soiled linen or waste receptacle
- Do not re-wear used gown (if reusable must be laundered between uses)

Face Protection



Indications for Use

- Masks and eye protection or face shields protect the mucous membranes of the eyes, nose and mouth during procedures and resident care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions and within two metres of a coughing person
- A mask (non N95) can be placed on a coughing resident or client (if tolerated) when in public spaces or within 2 metres of others (who are not masked)

Selection of face protection



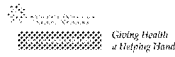
- Assess the risk of exposure to determine the type of face protection to wear
 - Full face protection can be achieved by
 - A mask with safety glasses
 - A full face shield
 - A mask with an attached visor

Appropriate Mask Use



- Select a mask appropriate to the activity
- Mask should securely cover the nose and mouth
- Change mask using designated process if it becomes wet or soiled
- Do not touch mask while wearing
- Remove correctly and discard in regular waste
- Do not re-use mask

Selection of Mask



- Type of procedure or care activity
- Length of procedure or care activity
- Likelihood of contact with splashes, sprays or aerosols
- Should cover nose and mouth

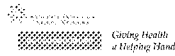
Eye Protection



Indications for use

- Used by staff (in addition to a mask) to protect the eyes when it is anticipated that a procedure or care activity is likely to generate splashes or sprays of body fluids or when within two metres of a coughing resident or client

Selection of Eye Protection



- Type of activity and risk of exposure
- Circumstances of exposures
- Other PPE used
- Personal vision needs
- Must provide a barrier to splashes from the side

Types of Eye Protection



- Safety glasses
- Goggles
- Face shields
- Visors

Appropriate Use of Eye Protection



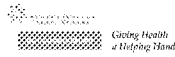
- **Prescription eyeglasses are not adequately protective**
- Remove eye protection using designated procedure after each procedure and clean or dispose
- Eye protection should not be shared between staff without being cleaned

Removing PPE



- Remove gloves
- Remove gown
- Perform hand hygiene
- Remove eye protection
- Remove mask
- Perform hand hygiene again

Soiled Linen, Waste and Used Dishes



- **No special handling of linen, waste or dishes!**
- All should be considered as potentially contaminated
- No double bagging!
- No disposable dishes!
- No special bags!

Patient\resident\client Placement



- Risk assessment must be carried out before placement.
 - Are they soiling their environment?
 - Do they have an infectious process?
 - Do they have risk factors for Antibiotic Resistant Organisms (AROs)
 - What is the condition of others cared for on the unit or ward?

Patient\resident\client Placement



- Do they have an indwelling device?
- Do they have non-intact skin?
- What is their susceptibility level e.g.: underlying disease, neutropenia, extremes of age (very young, old, elderly)?
- Can they follow directions on hygiene measures?

Elements comprising AP



- Specialized accommodation and signage
 - Spatial separation
 - Signage
 - Engineering controls
- Barrier Equipment
- Dedicated Equipment
- For Vancomycin-Resistant Enterococcus (VRE) and *C.difficile*: additional cleaning
- Communication

Cohorting



Two types, may be combined:

- Client\resident cohorting
 - Place and care for clients/residents in the same room – infected/colonized with same organism
 - Placing exposed together
- Staff cohorting
 - Assign specific staff to care only for clients/residents infected with same organism.

Visitors and AP



- Must receive education on hand hygiene and appropriate use of barriers (PPE)
- Must wear same PPE as staff if providing direct care

Initiating AP



- Always in addition to RP
- Must be instituted as soon as symptoms suggestive of infection noted if warranted
- Facility should have policy authorizing ICP and regulated workers to implement AP

Duration and discontinuation of precautions



- Discontinuation of AP –in consultation with ICP
- Inform attending physician
- If disagreement-higher level of precautions until diagnosis or expert consultation-such as public health

Impact of AP on Quality Care



- Although necessary to protect other clients/residents and staff AP may cause:
 - Limited contact with staff
 - Fewer visits from family and friends
 - Psychological problems related to isolation
- It is important that AP not be used any longer than necessary
 - Assess risk of transmission
 - May be necessary to modify AP

Contact Precautions (CP)



- Contact transmission includes direct contact, indirect contact.
- Although droplet transmission is a type of contact transmission, it is considered separately as it requires different precautions.
- Several studies provide evidence that gloves and gowns prevent transmission

Elements comprising CP



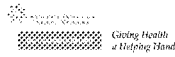
- Always used in addition to RP
- Includes:
 - Accommodation-risk assessment
 - Signage
 - Gloves/gown
 - Equipment
 - Additional cleaning: for *C. difficile* and VRE
 - Transport
 - Communication

Accommodations and placement



- In long term care, resident not to be restricted to room unless high risk of transmission to others
 - Wound drainage not contained in dressing which soils environment
 - Uncontrolled, uncovered productive cough
 - Diarrhea or vomiting which risks soiling environment
- Single room is ideal but not always workable
 - Place with other with same infection/colonization
 - Place with low risk resident-no indwelling urinary catheter or open wounds.

Signage



- Appropriate signage at room entry or bed space
- Indicates only the required precautions not the organism
- Remains in place for duration of precautions.
- May need to be creative!

Gloves and gowns



- For direct care:
 - Direct care includes “hands-on” care such as bathing, washing, turning resident/client, changing clothes/incontinence products, dressing changes, care of open wounds/lesions or toileting.
- Must be put on and removed appropriately
- Dispose in regular waste after use

Equipment



- Dedicate to individual if possible
- If not, must be cleaned/disinfected before use on another person

Additional Cleaning



- For *C. difficile* and VRE only
- Should have specific procedure for housekeeping
- Processes should be audited on a regular basis
- Focus on high touch areas and areas at highest risk for contamination

Transporting resident/client



- Remember this is direct or indirect contact!
- Staff in direct care contact with patient/resident/client during transfer to wear appropriate PPE
- No PPE for patient/resident/client
- Clean/disinfectant transfer equipment after transport or cover equipment during use

Communication



- Must respect privacy
- Must also inform other staff who care for or interact with patient/resident/client of their need to wear PPE as appropriate

Using Contact precautions



- Contact precautions should be used in addition to RP for:
 - Acute diarrhea and/or vomiting of likely infectious cause
 - Uncontrolled extensive desquamating skin disorder with known or suspected infection or colonization
 - Skin rash compatible with scabies
 - Draining, infected wound in which drainage cannot be contained by dressing

Contact Transmission Organisms



Some organisms that can be transmitted through contact transmission are:

- *Clostridium difficile*
- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- Vancomycin-resistant Enterococci (VRE)

Adapting contact precautions



- Contact precautions may need to be adapted so that clients and residents in non acute care settings can take part in therapeutic and social activities while limiting physical contact

Droplet Transmission



- Occurs when droplets carrying infectious agent exit the respiratory tract
- Droplets are propelled a short distance and enter the eyes, nose or mouth or fall onto surfaces.
- Droplets do not remain suspended in air
- Travel less than 2 metres

Droplet Transmission Organisms



- Examples of droplet spread organisms are:
 - Respiratory viruses
 - Adenovirus, influenza, parainfluenza, rhinovirus, human metapneumovirus and RSV
 - Rubella,
 - Mumps, and
 - Whooping cough (*B. pertussis*)

Droplet Precautions



- Surgical mask with attached visor
- Surgical mask with full face shield or
- Surgical mask with eye goggles.
- Hand Hygiene

Airborne Transmission
Precautions



- Airborne transmission refers to dissemination of microorganisms by aerosolization.
- Single room with negative pressure airflow is required.
- Health care workers must wear a fit-tested N95 mask

Airborne Transmission
Organisms



- Organisms that can be transmitted through airborne transmission are:
 - Tuberculosis (TB)
 - Varicella or disseminated herpes zoster
 - Measles
 - Potentially influenza

In Summary



- Routine practices must be used for all persons regardless of their diagnosis.
- Risk assessment is critical to determine barriers to use and determine other factors such as placement
- Barriers are one part of the hierarchy of controls
- Additional precautions are based on the route of transmission of specific organisms and/or syndromes and may need to be modified in specific care settings and individual risk factors.

References



All of the following are found at www.pidac.ca

- Ontario Best Practice Manual : *Preventing Febrile Respiratory Illnesses* –March 2008
- Ontario Best Practice Manual : *Hand Hygiene* For all Health Care Settings–January 2009
- Routine Practices and Additional Precautions In All Health Care Settings–August 2009
- Ontario Best Practice Manual : *Infection Prevention and Control of Resistant Staphylococcus aureus and Enterococci* –March 2007
- Ontario Best Practice Manual : *Clostridium difficile* For all health care settings–January 2009