

Infection Control Issues in Community Agencies



September , 2011

Today's Objectives

1. To create awareness in Infection Prevention & Control (IPAC)
2. To demonstrate an understanding "Risk Assessment" and how this applies to "Routine Practices"
3. To gain knowledge regarding the "Chain of Infection"

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What are the issues?

- Average cost healthcare associated infection is **\$5,700 to \$14,000**
- An infection occurring in hospital results in:
 - Increase in Length of stay
 - Administration of antibiotics
 - Insertion of invasive devices such as IV lines
- **Deaths in Canada / yr = 12,000-15,000**
- **30% - 50%** of Healthcare Associated Infections can be prevented by hand hygiene

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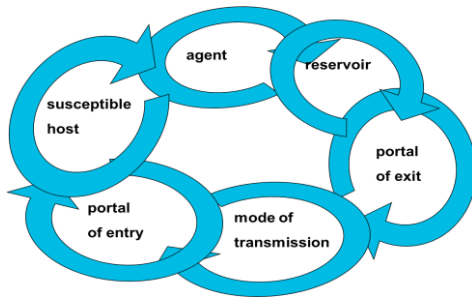
Our Clients

- Everyone has “bugs” on them, all the time
- Some microbes are normal
- Some are potentially harmful
- There will always be someone around who will become “exposed” and get sick



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The Chain of Transmission



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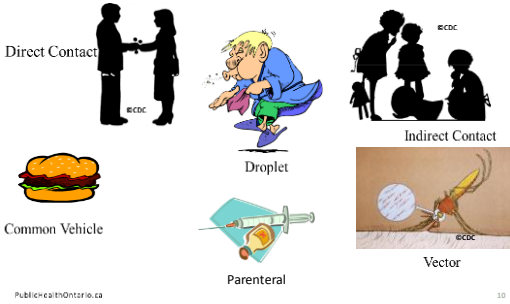
Breaking the Chain



- Interrupting 1 or more links breaks the chain of transmission
- Accomplished by the use of Routine Practices & Additional Precautions

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Mode of Transmission: How micro organisms are spread



Portal of Entry

- How the infectious agent gets into a person
 - Open skin
 - Mucous membranes – eyes, nose, mouth
 - Gastrointestinal system
 - Needlestick



Why are patients susceptible?

- Age
- Breaks in the natural defenses
- Co-morbidities
- Invasive procedures
- Immobility, paralysis, swallowing problems



Terminology

- **Colonization**
 - Presence & growth of a microorganism in or on a body without tissue invasion or cellular injury.
- **Infection**
 - Entry and multiplication of an infectious agent (microorganism) in the tissues of a host resulting in cellular injury

Routine Practices: *Every client – Every time*

- All clients are potentially infectious, even without symptoms.



Routine Practices

- Minimum standards to use for all client contact
- Protect clients, staff
- If there is a chance of exposure to blood, body fluids, excretions or secretions, protect yourself
- Assume that **all** blood and body fluids are potentially infectious
- **If its' WET and not yours.....**

Hand Hygiene

Single most important way to control the spread of infection

- If hands are **not** visibly contaminated then the use of 60-90% alcohol based hand rub is preferred
- Washing with soap and water is required if there is visible soiling with dirt, blood, body fluids or other body substances



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Alcohol-based Hand Rub

- Preferred method of hand hygiene when hands are not visibly soiled (*WHO, PIDAC, CDC*)
- Contain emollients that help reduce skin irritation
- Takes less time to use compared to washing with soap and water
- Wash your hands with soap & water when your hands are noticeably soiled or dirty.

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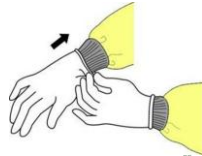
Personal Protective Equipment (PPE)

- Selection based upon the nature of interaction with the client and the mode of transmission.
- PPE should never be used indiscriminately as it may result in:
 - Interference with care
 - Waste and increased cost
 - Staff may be less likely to perform hand hygiene
 - Overuse may lead to shortages
 - Environmental concerns

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Routine Practices: Glove Use

- An additional measure of protection: NOT a substitute for hand hygiene
Use for touching blood, body fluids, contaminated items, mucous membranes and non-intact skin
Task specific – use one pair of gloves for each task
Perform hand hygiene after removal



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Horizontal lines for notes.

PPE- Gloves

- Select gloves that fit well and are appropriate for task.
Should be applied immediately before task, and removed immediately after.
Hand hygiene immediately after glove removal.
Should be changed if moving from a contaminated site to a clean site/procedure on the same patient.
Must be changed after touching a contaminated site and before touching a clean site or environment.
Must be changed between clients.
Single use gloves are disposable and should not be washed or reused.

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PPE- Gowns

- Recommended when it is anticipated that a procedure or care activity can generate splashes or sprays of blood, body fluids secretions or excretions.
Should be put on immediately before the task and worn appropriately (i.e. tied at the top and waist).
Removed immediately after use in a manner that prevents contamination of the skin, clothing and agitation of the gown.
Used only once and discarded or laundered

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PPE- Masks

- Are used to protect the mucous membranes of the nose and mouth when it is anticipated that a procedure may generate splashes or spray of blood, body fluids, secretions or excretions or within 2 meters of a coughing patient.
- Should securely cover the nose and mouth.
- Should be changed if it becomes wet.
- Should be removed correctly immediately after task and discarded.
- Do not allow mask to hang/dangle around the neck.

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PPE- Eye Protection

- Used in addition to a mask to protect the mucous membranes of the eyes when it is anticipated that a procedure or care activity is likely to generate splashes or sprays of blood, body fluids, secretions or excretions, or if within 2 meters of a coughing patient.
- Includes safety goggles, safety glasses, face shields and visors attached to face shield.
- Prescription eye glasses are not considered adequate protection.
- Eye protection must be removed immediately after task and discarded or placed in appropriate receptacle for cleaning.
- Must provide a barrier to splashes from the side.
- May be single use disposable or washable for re-use.

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Routine Practices

- Cleaning and disinfecting environmental surfaces



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Cleaning Principles

- Key to cleaning environmental surfaces is use of friction ('elbow grease') to physically remove dirt and organic matter
- Thorough, routine cleaning is the most important step!
- In home setting most "off the shelf" products are okay



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- Scrubbing and wiping may be as important as any antimicrobial effect of the cleaning agent
 - *Guidelines for Environmental Infection Control in Health Care Settings: Centers for Disease Control, 2003*
- Use a systematic procedure
 - least soiled areas to most soiled
 - from high to low surfaces
- What to clean?
 - High degree of handling / touching
 - Increased risk of cross-contamination



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Viability of Microorganisms

- RSV8 hours
- Influenza..... 24 - 48 hours
- Rotavirus..... 8 days to weeks
- MRSA..... days to weeks
- VREweeks to months

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Routine Practices

- Cleaning and disinfecting including equipment between uses



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Careful Handling of Soiled Linen and Waste

Waste

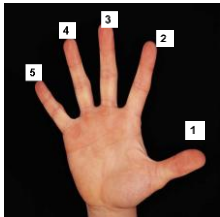
- Wear gloves
- Careful handling to avoid contamination of environment and uniform
- Handle with minimum agitation
- Do not overfill bags
- Containers should be routinely cleaned and disinfected

Linen

- Wear gloves
- Place wet items in plastic bag to prevent leakage
- Soiled linen is rarely implicated in the transmission of infections
- All linen should be handled using the same precautions, regardless of source or health care setting
- routine laundering practices are adequate for laundering all linens, regardless of source
- special handling of linen for clients/patients/residents on Additional Precautions is not required.

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Everything You Need To Know About Routine Practices



On the fingers of one hand !

1. Clean your hands
2. Wear gloves
3. Wear a gown
4. Wear a mask & goggles
5. Clean equipment used on more than one client

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References

- PIDAC
 "Routine Practices and Additional Precautions" – revised 2010
 "Best Practices for Environmental Cleaning for Prevention and Control of Infections" - 2009
 Just Clean Your Hands- MOHLTC

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