

CHICA 2009 National Education Conference

**Delta St. John's/St. John's
Convention Center
Novice Practitioner Day
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**Common Issues / Pitfalls with Cleaning, Disinfection
and Sterilization**

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Objectives

The participant will have an understanding of the general principles of:

- **Cleaning**
- **Disinfection**
- **Sterilization**

Examples of some common issues and pitfalls.

Cleaning

- Removal of visible dirt, organic material and debris
- Requires the use of friction "elbow grease".

Cleaning

- **Two types of cleaning**

Cleaning of environmental surfaces such as walls, floors and furnishings.

Cleaning of patient care equipment and instruments.

General Principles of Cleaning

1. Soil acts to protect microbes from contact with disinfectants and sterilants.
2. Physical cleaning eliminates large numbers of organisms.
3. Sound cleaning practices in healthcare facilities are important for aesthetics effects and reducing the microbial load on environmental surfaces.

General Principles of Cleaning (Con't)

4. Manufacturer's recommendations for operation of cleaning equipment and use of cleaning supplies must be followed carefully.
5. Complete disassembly of each item is a necessary prerequisite for cleaning.

Disinfection

A process that kills or destroys most disease producing micro organisms.

Rarely kills all spores.

Used on inanimate objects.

- High-level disinfection
- Low-level disinfection

General Principles of any Chemical Disinfectant

1. All items must be thoroughly cleaned before disinfecting.
2. All items must be thoroughly rinsed and dried after disinfecting.
3. Only surfaces in direct contact with the solution will be disinfected.
4. Disinfectants are designed for inanimate objects and are damaging to the skin.

Generally the more effective against microbes the more toxic to humans.

Sterilization

A process by which all forms of microbial life including bacteria, viruses, spores and fungi are destroyed.



Factors affecting Sterilization Process

1. Time



2. Type of micro organisms present

3. Number of micro organisms present



Trivia Time!!!

Which surface can transmit organisms easier?

Money

Door knob

Researchers discovered that smooth (non-porous) surfaces transmit bacteria and viruses better than porous materials; so one is more likely to pick-up a disease from a door knob than from paper money.





Life in the 21st Century

- Most of our time is spent indoors
- More people work in offices than ever before
- We travel more than ever before
- We spend less time cleaning than the last generation
- We spend more time in public places
- We are mobile and have more electronic equipment (eg. Cell phones)

Fomites of the 21st Century

Keyboards



Fomites of the 21st Century

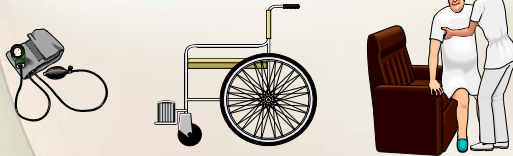
- Cell phones 
- Blackberries 
- TV remote 
- Computer mouse 
- Electronic health records 

Nursing station



Routine Practice - Clean Equipment between patients

- Infections can be spread by **Direct contact** from the contaminated hands of Healthcare workers when providing patient care and from contaminated equipment.




Most Diseases Spread Through Hand Contact

- Every three minutes, a child brings his/her hand to their nose or mouth.
- Every 60 seconds, a working adult touches as many as 30 objects.



Did You Know?

80% of all common infections (colds, flu, diarrhea) are spread through the environment (air, water, food, fomites)



Remember!!

- Careful attention should be paid to the regular cleaning of environmental surfaces that are frequently touched.

REFERENCES

- Ontario Ministry of Health and Long Term Care. Best Practices for Infection Prevention and Control Programs in Ontario in all Health Care Settings. September, 2008.
- Canada Communicable Disease Report, Infection Control Guidelines December, 1998, Vol. 2458 "Hand Washing, Cleaning, Disinfection & Sterilization in Health Care.

REFERENCES (CON'T)

- CDC Guidelines for Disinfection & Sterilization in HealthCare Facilities, 2008.
- Association for Professionals in Infection Control & Epidemiology, Inc. 2nd Edition, January 2005.
- Guideline for Routine Practices & Additional Practices, Department of Health & Community Services Disease Control Division, Newfoundland & Labrador, February 26, 2009.

Questions??