



Hand Hygiene Audits: The Gloves Are Off Now

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Objectives

- Discuss types of Hand Hygiene (HH)
- Introduce HH audits and CSPS compliance
- Review the 4 moments of HH
- Review relationship between HH and asepsis
- Discuss gloves as a barrier to HH
- Look at barriers to HH

Declaration

- No conflicts to declare
- Have not been promised a bonus for decreased glove consumption
- Do not own stock in ABHR companies and have not received financial support

Did you know?

- Up to 10% of patients accessing healthcare acquire an infection
- Up to ½ can be **prevented**
- Responsible for 220,000 hospitalizations, 8,000 deaths/year nationally at a cost \$17-\$29 billion
- 20 years ago HAI 11th leading cause of death
- Now it is the fourth leading for Canadians behind cancer, heart disease and stroke

Did you know?

- An increase in hand hygiene adherence of only 20% results in a 40% reduction in the rate of HAI McGeer(2008). Hand hygiene by habit. *Ontario Medical Review*, 75(3).
- Most healthcare providers believe they are already practicing good hand hygiene
- Observational audits show healthcare worker HH compliance rates range from 20%-40%

Hand Transmission



- Hands are the most common vehicle to transmit health care associated organisms
- Adherence to HH guidelines is the single most important measure to prevent transmission of pathogens causing HAIs (PIDAC, PHAC, Lancet)

Hand Transmission



Greg's Rule # 1

Your Mother Was
Right, Wash
Your hands!

Hand Hygiene Audits

Why Audit?

- HH identified as a patient safety indicator by MOH and CPSI
- Hospitals are required to publicly report HH compliance rates since April 2009
- Immediate feedback given to HCW, results in increased compliance
- Ensures HH is completed the right way at the right time

Hand Hygiene Audits

Why Audit?

- Hospital required to audit all HCWs in all areas
- Paramedics are included and hospitals are providing feedback to CSPA
- Baseline required to determine steps for improvement
- Goal is to increase awareness, knowledge and compliance rates
- Overall goal is Paramedic and Patient safety

Audit Process

- Observational audits based on 4 moments of hand hygiene (WHO, PHO)
- Trained staff observe calls from start to finish
- CTAS 1 calls excluded
- Observations recorded on a form

Hand Hygiene

- **Alcohol-Based Waterless Hand-Cleanser**
 - Alcohol kills virus and bacteria
 - Preferred method of HH, except for C-Diff
 - Use only when hands not visibly soiled
- **Soap & Water**
 - Soap suspends microorganisms allowing them to be washed off
 - Use on when hands visibly soiled & C-Diff



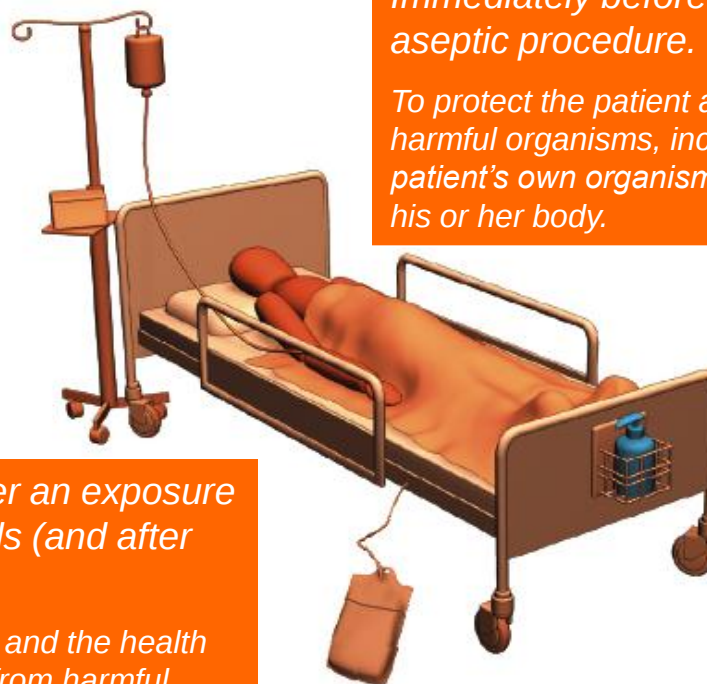
Your 4 Moments of Hand Hygiene

When entering before touching the patient or any object or furniture in the patient's environment.

To protect the patient/ patient environment from harmful organisms carried on your hands.

Immediately before any aseptic procedure.

To protect the patient against harmful organisms, including the patient's own organisms, entering his or her body.



Immediately after an exposure risk to body fluids (and after glove removal).

To protect yourself and the health care environment from harmful patient organisms.

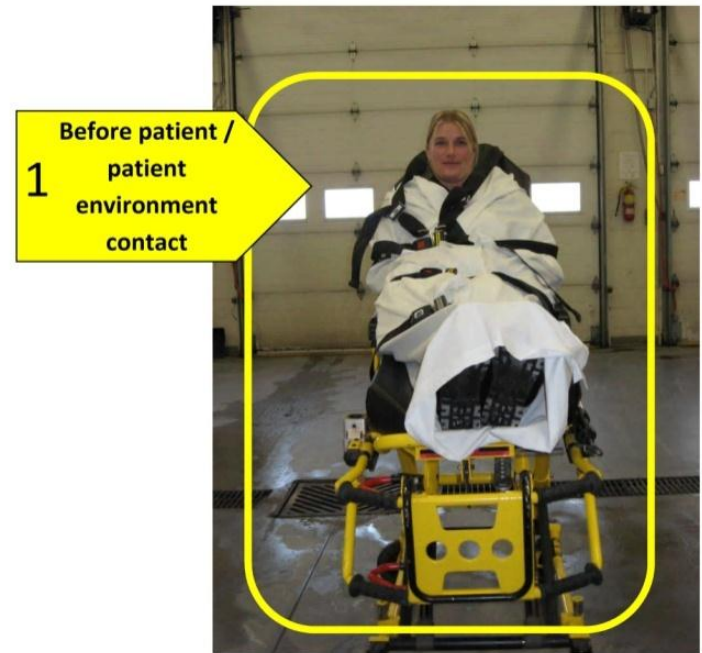
When leaving after touching patient or any object or furniture in the patient's environment.

To protect yourself and the health care environment from harmful patient organisms.

Moment 1

Examples

- Entering patient zone
- Donning PPE
- Contact with patient environment
- Taking vitals
- At point of care



Moment 2

Examples

- Before blood glucose
- Before starting an IV
- Before giving an injection
- Before inserting an ET tube, king or oral airway
- Before surgical airway or needle decompression
- Before delivering a baby



2

Before aseptic
procedure

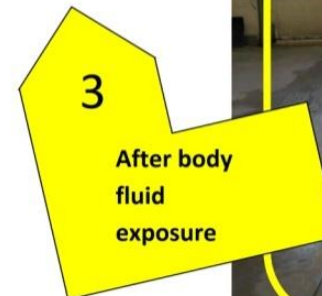
Scenario

- Call for elderly male in nursing home, fall with laceration
- Crew arrives, gloves on already
- Remove equipment from vehicle
- Enter nursing home, using keypad
- Push elevator buttons, open door
- Wound care provided with same gloves on
- Asepsis achieved?

Moment 3

Examples

- After contact with blood/body fluids
- After mucous membrane contact
- After wound care
- When hands visibly soiled



Moment 4

Examples

- After PPE removal
- After driver loads and before driving
- When going to triage
- After completion of patient care
- Following cleaning and disinfection



After patient /
patient
environment
contact

4

HH Audit Results!

- Predictions?
- Based on preliminary audits.... 24%
- Most opportunities missed because gloves worn
- 0% for aseptic procedures
- 0% following blood/body fluid
- 6.25% prior to patient contact
- 42.7% following contact

What do the Results Suggest

- Personal safety is strongest
- Patient safety for next patient is better than current patient
- Perhaps HH moments are not well known!
- Gloves are a barrier to HH compliance
- Asepsis?
- We need to be better

Perceived Barriers to HH

Based on WHO guidelines

- Skin irritation
- Lack of access to HH supplies
- Patient needs seen as priority over HH
- Forgetfulness, lack of time, workload
- Lack of 4 moments knowledge
- Gloves use

Greg's Rule # 2

If it is wet and sticky
and not yours; wear
gloves!

Gloves as a Barrier to HH

- Guidelines: gloves worn for blood/body fluid, mucous membrane and open wound contact
- In EMS gloves used automatically
- Prior to HIV no gloves; pendulum swings and gloves always used
- Focus on gloves rather than HH
- Swing pendulum to middle, culture change

The Problems with Gloves

- Improper Use of gloves leads to poor HH compliance (Girou et al 2004, Conconi et al 2013, PHAC)
- When putting gloves on pathogens dangerous to patients can be transferred to glove surface
- When removing gloves it is impossible to do with out contamination of hands
- Gloves are not perfect, they contain microtears
- Consider what is contaminated by dirty gloves as opposed to clean hands

Ideal vs Reality

- We can agree most calls not life threat (95%)
- Plenty of time for HH on most calls
- Variations are required due to time (5%)
- Variations due to call details, patient cleanliness and examination requirements
- Not all patients are gross
- If gloves are worn and are no longer required, remove and perform HH

Improving Compliance

- Not surprising HH compliance is low
- System problem, its not your fault
- HH not well taught
- HH compliance was low in other areas of healthcare prior to auditing
- Increased compliance leads to increase provider and patient safety

Take Home Message

- Poor HH compliance leads to increased HAI
- HH Compliance needs to improve
- Focus on 4 moments
- Avoid being lulled into false sense of security with gloves use
- Less reliance on gloves, use with thought, avoid the habit

Questions?



Questions
are
guaranteed in
life;
Answers
aren't.

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Did I forget to
mention . . .

**Wash Your
Hands!**