Bedpan Management and Waste Disposal

“I DON’T Like to clean Bedpans”

“It’s what I can DO Best”

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Disclaimer/Disclosure
Consultant Infection Prevention current & in past for:
Diversey the Netherlands, Vernacare UK, Hakerman Turkey, Medwaste Control the Netherlands, Meiko Germany, Meiko China, Sigex Brazil, Pilasi Y Errázuriz Limitada Chile, SCA Hygiene Products Sweden,
Facts

- People do not like to talk about: stool, poop, shit, body waste
- Bowel: largest human microbiome (10^{14} per gr. faeces)
- 150 à 300 gram faeces per person per day
- Information about your health/condition
- Bedridden patients needs a bedpan
- Infection control / prevention item

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<th>Bristol Stool Chart</th>
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Basic Precautions

1. Handhygiene & personal hygiene
2. Cleaning & disinfection procedures
3. Aseptic technique
4. Laundry & waste handling
5. Careful human waste handling
During Bedpan Management
Lots of Opportunities for Transmission & Contamination

- Full Bedpans Contaminate Hands & Environment
- Hands can Contaminate Environment & Patients
- Contaminate Environment can Contaminate Hands
- Bedpans & Hands can Transmit Microorganisms
- Unclean Bedpans can be a Reservoir
Bedpan Management

1. Patient care
2. Transport to Empty
3. Emptying
4. Flushing
5. Cleaning
6. (Loading in a Machine)
7. Disinfection
8. Drying
9. Storage
1. Patient Care

Who is caring if defecation is done in bed:
- Patient himself 6%
- Relatives or friends or caregivers 24%
- Nurses 76%
- Other hospital staff 41%

Presentation IFIC Survey
2014 conference Malta
Prof Dr. Walter Pop, Germany
Transport to Empty

Not as simple as we might think

Specimens must be placed in a leakage free closed container

Why no Precautions for Transport of FULL Bedpans?
Bedpan Management

3. Emptying

Environment seldom cleaned directly
Risks Sink & Slop-hoppers

- Flush
- Rinse
- Water spray
- No Disinfection
- Manual Handling

Splash, Splatter, Aerosols

Slob-hopper After cleaning
Bedpan Management

5. Cleaning

Not always safe procedures
Percentage of Surfaces touched by Manual Cleaning

Dr. Philip C. Carling: ± 30%
Dr. William A. Rutala: ± 50%

Will Bedpans 100%?

O.R. after final cleaning MRSA, Venlo 2008
Bedpan Management

6. Loading in a Machine

Poor Practice

Good practice
Manual Chemical Disinfection

- Different (inter)national guidelines
- Frequency not clear
- Product-choice
- **Exposure risk**
- Time consuming procedure
- Expensive
- **False sense of security**
- Unpopular task
- No correct use disinfectants
- Microbial contamination of prepared disinfectants?
- **Never a SAFE Standard Operated Procedure (SOP)**
Mechanical Disinfection

• Standard operated procedure (SOP)
• Thermal disinfection
• Validation
• Continuous monitoring
• More reliable than chemical disinfection
• No residues
• Non-toxic for human beings
• Non-toxic for environment
Bedpan Management

Drying

Potential Reservoirs if not dry

Shape and Material of bedpans and urine bottles effects the cleaning and drying process
9. Storage in Dirt Utility Rooms

- No separation between clean & contaminated
- Not everywhere recognized
- Not much attention
Bedpans and Urine bottles are Medical devices

Shape and Material of Bedpans and Urine bottles effects the decontamination process
Handling Bedpans

Faeces $10^{14}$ Micro-organisms

Including Multi Drug Resistant Organisms (MDRO)

- 10-20 % of patients may be colonized with Clostridium difficile
- 10% estimated Carrier of multidrug-resistance (MDR) among Gram-negative bacilli (GNB) & ESBL-producing GNB
- Transmission of nosocomial MDR GNB pathogens between patients involves a complex interaction of Contaminated surfaces, clothing and hands of healthcare personal

Facing the rising tide of multidrug resistant Gram-negative pathogens, Healthcare Infection 16(1) 1-5 Luke F. Chen*, Matthew E. Falagas and Anton Y. Peleg
International Survey 2010
Sent to: 1176 Hospitals in 116 Countries

Questions included:

- Identify empty and decontamination methods for bedpans
- Audit sluice rooms
- Identify if bedpans or WD has played a role in HAIs
- Awareness of ISO15883 for WD
- National guidelines Specific for handling bedpans
Remarkable results

• 13 hospitals mentioned always using urine-catheters and/or diapers for bedridden patients with antibiotics prophylaxes
• No training for emptying and decontaminate bedpans
• Specific measures in case of Clostridium difficile
• Disposable Bedpan used during the whole hospitalization, which are emptied manually and cleaned with only a spray or rinse after use
4-21 % reported HAI WD and Bedpans as the Source

Reported Microorganisms:

- MDR Pseudomonas aeruginosa
- MRSA
- Clostridium difficile
- Norovirus
- Salmonella species

Survey 2010 Bedpan Management
KNIP Consultancy Infection Prevention
www.info@knip-consult.eu
In case of Negligent Bedpan Management
Risk for All Types of Healthcare Associate Infections

Sepsis with Multi resistant Pseudomonas aeruginosa
Use of WD & Macerator (%)

1. Netherlands
2. West- Europe East& South Europe
3. Asia, L-America, Eastern Medit. Region, Africa
4. Australia & new Zealand
5. USA & Canada

* In UK majority Macerators
Contamination Risks Practice Manual Handling

Healthcare Worker
• Hands
• Eyes

Environment
• Floors
• Walls
• Surfaces
• Clean items
2006 International Standard
Washer Disinfectors (WD)
15883-Standard Part 1-6

- Part 1  General requirements, terms and definitions and tests
- Part 2  Requirements and tests for WD employing thermal disinfection for surgical instruments, anaesthetic equipment
- Part 3  Requirements and tests for WD employing thermal disinfection for human waste containers
- Part 4  Requirements and tests for WD employing chemical disinfection for thermo-labile endoscopes
- Part 5  Test soils and methods for demonstrating cleaning efficacy
- Part 6  Requirements and tests for WD employing thermal disinfection for non-invasive, non-critical medical devices and healthcare equipment
Bedpan Washer Disinfectors

**Safe Handling Human Waste at Any Patient at Any time by Any HCW**

- Results that offer more security than manual processing
- No manual handling
- Prevention of transmission of MRSA, C. difficile and other MDRO
- Visual Clean Products
- No odors
- Thermal validated disinfection
- Saves nursing time
- Easy to use
- Common in North-West European Healthcare
- Protect healthcare workers from exposure
- Minimize contamination and transmission
Requirements
Dirty utility room / sluice room

A well planned sluice room plays a role in infection prevention

Infection Control Teams have to discuss their specific requirements to planners and architect BEFORE Renovation and Building
Requirements
Dirty utility room / sluice room

- Reasonable distance from patients’ rooms
- Hand hygiene dispensers (alcohol + soap)
- Connection to drainage for WD
- **Possibility to separate clean and not clean**
- Protection against recontamination
- Easy to maintain and to clean
Bedpan Liner

**Pro**
- Disposable Covers
- Absorption Content

**Contra**
- Continuous Costs Disposables
- Storage capacity
- Decontamination Support
- Hands contacts
Macerator

**Pro**
- Disposable bedpans etc.
- No Manual handling

**Contra**
- Different Quality on Market
- Continuous Costs Disposables
- Storage capacity
- Allowed for your Sewage system?
- Blockage drains (London)
- Decontamination for Support needed

Requirements Macerator:
*Sufficient Electricity, Water supply and Sewage connection*
Washer Disinfector

Pro
- No Manual handling
- Reusables
- Validation possible

Contra
- Different Quality on market
- Needs Maintenance

Requirements WD:
Sufficient Electricity, Water supply and Sewage connection
Conclusion

• Safe bedpan management contributes to minimize contamination & transmission
• Assess the risks in your hospital
• Develop Guidelines
• Store clean separated from not clean
• Nurses can play an important roll in DEMANDING for good Washer Disinfectors
Nurses Hands are Made for Care

Not for Emptying and Cleaning Bedpans..
Thank you
Holland