Standardized Training for Environmental Cleaning in Healthcare
Grace Volkening, Nora Boyd, Brenda Smith, Regional Infection Control Networks, Ontario, Canada
Teleclass Sponsored by Virox Technologies Inc. (www.virox.com)

Objectives
- Describe the role of environmental cleaning in relation to healthcare associated infections
- Describe some key principles of environmental cleaning best practices from the PIDAC Best Practice guidelines
- Summarize the process used to develop the toolkit and its components
- Provide brief overview of the toolkit evaluation

Sentinel event in 2003

Provincial Infectious Diseases Advisory Committee (PIDAC)
- PIDAC was originally established in 2004 in response to the recommendation by the Expert Panel on SARS and Infectious Disease Control (Walker Panel) to provide a standing source of expert advice on infectious diseases in Ontario
- http://www.oahpp.ca/services/pidac/index.html

PIDAC committees
- IP&C committee advises Public Health Ontario on the prevention and control of health care associated infections
- Produces evidence based “best practice” knowledge products

PIDAC IP&C Best Practice Guidelines
- Routine Practices and Additional Precautions
  - Annex A – Screening, Testing and Surveillance for ARO
  - Annex B – Prevention of Transmission of Acute Resp Infection
  - Annex C – Testing, Surveillance & Mgmt of Clostridium Difficile
- Cleaning, Disinfection and Sterilization
- Infection Prevention and Control Programs
- Hand Hygiene
- Surveillance of Health Care Associated Infections
- Sexually Transmitted Infections – Case Mgmt & Contact Tracing
- Environmental Cleaning for Prevention & Control of Infections

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Regions

Regional Infection Control Networks (RICN)

Mandate to enhance capacity by standardizing approach to infection prevention and control best practices across the province and across the health care spectrum

Activities include development of IPAC resources, education and training, consultation, support and mentorship

www.ricn.on.ca

Why Network?

- Improve Infection Control capacity
- Combine resources and skills across the healthcare continuum
- Investment at the front-line where outbreaks occur
- Empower the frontline workers to implement best practices
- Provide a formal mechanism for sharing of expertise on a regional basis

Healthcare – Associated Infections (HAIs)

- Healthcare-Associated Infections (HAIs) occur as a result of healthcare interventions in any healthcare setting
- HAIs cause significant morbidity and mortality
- In Canada, it has been estimated that 220,000 incidents of HAI occur each year, resulting in more than 8,000 deaths (Zoutman et al, AJIC Aug 2003)
- HAIs are the 4th leading cause of death in Canada

Background on Environmental Cleaning

- Environment around the client/patient/resident (C/P/R) influences the incidence of infection
- Goal of cleaning: Keep environment safe for C/P/R, staff and visitors
- Overcrowding, understaffing and pressures to move more patients through the healthcare system can challenge the quality of environmental cleaning

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Best Practice for Environmental Cleaning


Key Concepts
- Routine Practices
- PPE
- Additional Precautions
- Frequency of routine cleaning
- Non-critical equipment and devices

Appendices
- Risk stratification matrix for frequency of cleaning
- Visual assessment of cleanliness
- Sample checklists and audit tools
- Advantages/disadvantages of hospital-grade disinfectants and sporicides

Hotel Clean & Hospital Clean
Hotel Clean:
- is a measure of cleanliness based on visual appearance that includes dust and dirt removal, waste disposal and cleaning of windows and surfaces.

Hospital Clean is a hotel clean PLUS:
- High touch surfaces in C/P/R care areas are cleaned and disinfected with hospital grade disinfectant
- Non-critical medical equipment is cleaned and disinfected between C/P/R AND
- Cleaning practices are periodically monitored and audited with feedback and education

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Focus on . . . Routine Cleaning

Frequency of Routine Cleaning depends on:

- frequency of contact: high touch vs low touch surfaces
- type of activity in the area
- vulnerability of the patients in the area
- probability of body substance contamination in the area

- Each area should be evaluated to determine the appropriate routine cleaning
  - Appendix B: Risk Stratification Matrix to Determine Frequency of Cleaning

Focus on frequently touched surfaces

- Often referred to as “high touch” items and surfaces
- More prone to contamination
- Examples: call bells, bedrails, door handles, telephones, bedside tables, ABHR dispensers

Focus on . . . Equipment Cleaning

Shared client equipment

- Who is responsible for cleaning shared equipment between uses?
- How do you know if it is clean or dirty?
- Where is it stored?
- How do you communicate which items are shared and which are dedicated to a specific client?

Focus on . . . Auditing

Why audit?

- Objective measurement that can be used as a quality indicator
- If it can’t be measured it can’t be improved (Carling)
- Transparent process/Feedback of results will occur
- Highlights areas of good performance – identifies a job ‘well done’
- Identifies opportunities for improvement
- Identifies deficiencies in building/equipment
- Ensures consistency between staff and areas

- Just because it looks clean, doesn’t mean it is clean -
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You cannot tell by looking . . .

Toolkit project
Partnership between:
• Regional Infection Control Networks
• Ontario Healthcare Housekeepers Association (OHHA)
• Canadian Association of Environmental Management (CAEM).

Project Deliverables
• Create standardized training program for front-line cleaning staff
• Provide other resource materials
• Identify barriers to success
• Evaluate the toolkit

The Journey, collaborating with stakeholders
• Hired project consultant
• Online survey issued to 300 CAEM and OHHA members in Dec 2009
• Workshop Dec 2009 with environmental services reps
• Jan to July 2010 developed toolkit content, video scripts, additional tools
• Piloted modules 1, 2 and 4 with front line ES staff
• July 2010 video production
• Aug/Sept mass production of CDs, DVDs and print materials
• French translation

What’s in the Toolkit?
Six Educational Modules on CDs:
• Module 1 – Chain of Transmission
• Module 2 – Routine Practices
• Module 3 – Cleaning products and Tools
• Module 4 – General Cleaning
• Module 5 – Additional Precautions
• Module 6 – Audits
Seven cleaning demo video clips on DVD

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Additional Tools included
- Project Background
- Needs Assessment Questionnaire from Dec 2009
- Adult Education Support Materials
- Module Objectives
- Video scripts
- Post test questions and answers
- Certificate of completion
- Attendance sheets

Module content
Module One: Chain of Transmission
- Importance of Environmental Cleaning in preventing healthcare associated infections (HAI)
- Principles of transmission of infectious agents and strategies for breaking the chain of transmission

Module Two: Routine Practices
- Focus on staff safety
- Proper use of personal protective equipment (PPE)
- Other safety control measures e.g. sharps safety

Module Three: Cleaning Products and Tools
- Difference between cleaning and disinfection
- Appropriate use of detergents and disinfectants including proper dilution
- Housekeeping space and equipment
- New technologies e.g. microfibre

Module Four: General Cleaning
- Cleaning principles including frequency
- Correct sequencing of tasks for cleaning
- Specific cleaning procedures e.g. bathroom cleaning, floor mopping
- Other considerations in environmental management e.g. waste handling, sharps safety, biological spill cleaning

Module Five: Additional Precautions
- Appropriate procedures for specialized cleaning including cleaning for additional precautions

Module Six: Audits
- Purpose and function of an audit
- Audit process

Learning Checkpoint
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Application Activity

Formats

Included are:

- Modules on CDs are narrated presentations
- PowerPoint presentations with speaker notes
- 7 sample procedures on DVD
- Video scripts

Demonstration DVD

- 7 video clips:
  - Discharge bed changing and cleaning (2min 40sec)
  - Bathroom cleaning (9min 45sec)
  - Daily room cleaning – Regular (15min 50sec)
  - Daily room cleaning – Contact precautions (15min)
  - Cleaning a blood/body fluid spill (3min)
  - Discharge room cleaning – Regular (15min 10sec)
  - Discharge room cleaning – Contact precautions (15min 35sec)
- Includes written scripts
  http://ricn.on.ca/environmentalcleaningtoolkitc5102.php?id=767

Beyond the Toolkit – Sample Procedures

1. Patient/Resident Room: Daily Room Cleaning
2. Contact Precautions Room: Daily Cleaning
3. Patient/Resident Room: Discharge/ Terminal Cleaning
4. Contact Precautions Room: Discharge/ Terminal Cleaning
5. Bathroom Cleaning
6. Management of Waste
7. Management of Linen and Laundry
8. Management of a Biological Spill

Found on RICN website in Resources -> Manuals and Toolkits

Beyond the Toolkit – Discussion Forum

- Sharing stories and experiences with others who share a common goal can motivate us to reach our goal
- Discussion forum at www.ricn.on.ca

Over 48,000 hits from more than 132 countries!

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Evaluation approach
- Project Team engaged assistance of evaluation expert *
- Short-term outcome objectives
  - Toolkit is received by intended users
  - Toolkit is used by intended users and supported by partners
  - Toolkit is considered to be useful and user-friendly
- Long-term outcome objectives
  - ES staff have improved knowledge of safety and adopt best practices
  - Hospitals and LTC facilities are using standardized cleaning and auditing program based on PIDAC best practices for environmental cleaning


Toolkit Evaluation – Dec 2011
- Using a Fluid Survey tool, 1,917 e-mail invitations were sent out across Ontario to ES and IPAC contacts in hospitals, LTC homes and public health units. Surveys were also distributed to a number of vendors
- 713 responses received – response rate = 39.3%
- 64% of the respondents came from LTC, followed by 18% from community hospitals
- 40% of the respondents worked in environmental services and 30% were from IPAC

One year later – what did you tell us?
- 76% of the respondents have used the toolkit
- 80+% found the toolkit useful to very useful
- 80+% found the toolkit easy or very easy to use

Most Used
- Survey revealed that most frequently used content was Module 2 (Routine Practices) followed by Module One (Chain of Transmission)
- Module summaries and the PPT slides with speakers notes were the most used components

“We started receiving positive feedback immediately”
“We realized that a number of our staff didn’t actually understand why they were doing what they were doing and why they were doing it the way they were”

Positive feedback
- “Since the launch of the toolkit and after I conducted training and inservice with staff, I have seen dramatic improvement in the cleanliness and sanitation of our home. We have had positive feedback from the residents and compliance and regulatory bodies.”
- I have found the toolkit to be terrific. I have trained 80% of the 102 staff members. I liked the ability to pause the program to add my own visual and verbal comments
- Wonderful to have this tool in our hands, prepared and ready to go
- This Environmental Cleaning Toolkit sat around for a year until I realized this toolkit is our answer

Room for improvement?
- Absolutely!
- Collaboration is critical
- PIDAC document is evergreen – Revision Spring/Summer 2012
- Continuous improvement

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In Summary
- Environmental cleaning plays an important role in the transmission of healthcare associated infections
- We reviewed:
  - some key principles of environmental cleaning best practices
  - the process used to develop the toolkit and its components
  - the toolkit components and additional tools provided
- We provided:
  - preliminary results from the toolkit evaluation
  - http://ricn.on.ca/homes1.php

Acknowledgements
- Public Health Ontario
- RICN colleagues
- CAEM
- OHHA

Questions?
- Nora Boyd, Erie St. Clair – nora.boyd@oahpp.ca
- Brenda Smith, Central West – brenda.smith@oahpp.ca
- Grace Volkening, Central Region – grace.volkening@oahpp.ca

Coming Soon
12 April  
FREE - A.O. Russell Memorial Teleclass In innate Resistance to Sporicides and Potential Failure to Decontaminate
Speaker: Prof. Jean-Yves Maillard, Cardiff University, Wales

17 April  
FREE WHO Teleclass – North America Implementing Change: The Technical & Socio-Adaptive Aspects of Preventing Catheter-Associated Urinary Tract Infection
Speaker: Prof. Sanjay Sant, University of Michigan
Sponsor: World Health Organization First Global Patient Safety Challenge

18 April  
Central Line Associated Infection in the ICU
Speaker: Prof. M. L. McLaws, University of New South Wales, Australia

24 April  
Managing Urinary Catheters and CAUTIs
Speaker: Sharon Eusce, ARC Health Care Management Consultants, UK

26 April  
Clostridium difficile Infection: Lessons From the Quebec Experience
www_webbertraining_com/scheduleupt_php

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