Using Expert Process to Combat *Clostridium difficile* Infections

Isabelle Guerreiro & Camille Achonu, Public Health Ontario

A Webber Training Teleclass

Using Expert Process to Combat *Clostridium difficile* Infections (CDI)

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Hosted by David Ryding
Public Health Ontario

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Acknowledgements

• PHO’s Infection Prevention and Control (IPAC) Department
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Objectives

- At the end of the session, attendees will be able to:
  - Describe the Infection Control Resource Team (ICRT) process.
  - Discuss the collaborative role between all those involved in ICRT visit activities.
  - Summarize key areas of practice improvement that were most frequently identified by ICRT visits.
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**Goals of the ICRT visits**

- ICRT visits provide:
  - Expert scientific advice
  - A ‘second set of eyes’
  - Supportive approach
  - Referenced recommendations.
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The ICRT... back then

- Two teams supporting different areas of the province.
- First point of contact.
- Independently coordinated the ICRT visit process and managed CDI outbreaks.
- Teams included an infectious diseases (ID) physician, infection control professionals (ICPs) and others such as epidemiologist and other PHO staff.

The ICRT... Now

- ICRT visit may be requested in a number of ways.
- Information gathering by IPAC Specialist.
- PHO determines the level of support needed.
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ICRT Members

• Drawn from PHO’s Infection Prevention and Control Team.

• At a minimum:
  • One PHO IPAC physician
  • One Program IPAC Specialist
  • One IPAC Manager
  • Representative(s) of Regional Support Unit

• Additional PHO members.

Expectations

• PHO ICRT Members:
  • Refer to best practices
  • Prepared and ready to support facility before, during and after visit.

• Requesting Facility:
  • Available and transparent
  • Senior Management Team Involvement.
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ICRT Visit – The Overview and Interviews

- Overview Meeting.
- Interviews with relevant staff and/or teams.

ICRT Visit – The Tour

Opportunity to:
- See practices in action and validate what we heard and read.
- Speak with staff, ask questions, clarify our understanding of issue(s).
- Identify gaps in facility design; patient flow; equipment and supplies management, etc.

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ICRT Visit – The Debrief

- Held at the end of the visit.
- Provide preliminary recommendations.

ICRT Visit Report

- Final approved PDF report provided soon after.
- Facility is encouraged to share the report (e.g., local PHU).
- PHO will provide ongoing support through the Regional Support Unit as the facility implements the recommendations.
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Regional Support Unit

- Core Function: Provide scientific and technical support.
- Have pre-existing relationship.
- Work with local PHU to support facility’s outbreak management issue(s).

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Regional Support Role Before Visit

- Review results of pre-ICRT visit to discuss identified barriers with the team.
- Assist in identifying key issues to ensure appropriate review during the visit.

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Regional Role During Visit

- Review of information.
- Participation during interviews.
- Gather and share information during the visit.

Regional Role Following the Visit

- Provide ongoing support.
- May assist in developing a plan to address recommendations.
- Ongoing follow-up support with facility and local PHU.
Role of Public Health Unit During an ICRT

- Provide PHO outbreak information prior to the visit where applicable.
- Participate during the ICRT visit
  - Overview and debrief meetings
  - Interviews.
- Support Facility
  - Hence importance of sharing report with PHU if not part of the request.

Lessons Learned
Methods

- Reviewed PIDAC best practices documents and identified 49 high impact recommendations in 14 general categories
- Selected all CDI-related ICRT reports from 2008 to 2012
- For each recommendation, reviewed ICRT reports to identify if hospital did not meet or needed to improve
- Ranked categories in order of most frequently identified

What We Saw From 2008 to 2012...

- Between 2008 and 2012, 22 CDI-related ICRT visits to 19 facilities.
- 3 facilities had two ICRT visits over the five-year period.
- The majority (59%) of ICRT visits were at large community hospitals; the remainder were at acute teaching hospitals (27%) and small community hospitals (14%).
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14 Areas of Concern

1. Environmental services (82%)
2. Antibiotic stewardship (73%)
3. Program staffing and medical leadership (73%)
4. Identification and isolation of CDI cases (73%)
5. Hand hygiene (68%)
6. Human waste management (64%)
7. IPAC education and training on Routine Practices/Additional Precautions (55%)
8. Audits of IPAC-related practices (55%)
9. Senior leadership support (32%)
10. Facility design (32%)
11. CDI outbreak management (32%)
12. Communication and partnerships (27%)
13. Access to appropriate and timely laboratory testing (23%)
14. Environmental cleaning services, policies and procedures for CDI (23%)
Environmental Services

• Most frequently identified IPAC issues were:
  • Clear processes for cleaning and disinfection of shared patient care equipment
  • Clear identification of clean versus dirty shared patient care equipment
  • Adequate environmental services resources – staffing.

IPAC Program Staffing and Medical Leadership

• Difficulty staffing IPAC programs with ICPs as per minimum requirements.
• Lack of dedicated manager or identification of combined management role.
• Insufficient medical support.
• IPAC program responsible for roles outside their scope.
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**Antibiotic Stewardship or ASP**

- Lack of ASPs with dedicated resources
  - Most in early stage of implementation
  - No dedicated pharmacist and/or physician.
- ASP activities are not sustainable due to limited resources.
- Inclusion of an ASP recommendation added to Annex C of PIDAC’s RPAP document in 2012.

**Identification and Isolation of CDI Cases**

- Lack of immediate implementation of Contact Precautions when diarrhea was identified.
- Unnecessary movements/transfers of patients
  - Impacted cleaning and disinfection
  - Created challenges for multiple departments
  - Made containment of CDI difficult.
- Poor communication between units.
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Hand Hygiene

- Various stages of hand hygiene programs.
- Inadequate location of ABHR dispensers.
- Poor compliance with hand hygiene
  - Reluctance to provide individual feedback
  - Inconsistent awareness of audit results.

What Have We Learned?

- Identified key common issues where stakeholders require support
- Refer to 49 high-impact recommendations when carrying out ICRT visits
- Informed development of IPAC resources
- Continue evaluation of recommendation up-take to inform impact of ICRT visits

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Overall...

- We have learned as much from those facilities experiencing outbreak management issues as they have learned from us
- Teamwork and collaboration has enabled PHO to improve ICRT visit process

Did You Know...

A summary of the ICRT findings has been published in the American Journal of Infection Control (AJIC) and can be found at

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<td>February 28, 2017</td>
<td>THE ROLE OF DRY SURFACE CONTAMINATION IN HEALTHCARE INFECTION TRANSMISSION</td>
<td>Prof. Jon Otter, Imperial College Healthcare NHS Trust, London</td>
<td>London</td>
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<td>March 9, 2017</td>
<td>EVALUATION OF INFECTION CONTROL TRAINING</td>
<td>Martin Kiernan, University of West London</td>
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<td>March 16, 2017</td>
<td>HOW TO BECOME CIC CERTIFIED WITHOUT BECOMING CERTIFIABLE</td>
<td>Sue Cooper, Public Health Ontario, Canada</td>
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<td>March 28, 2017</td>
<td>TREATMENT OF SEVERE MRSA INFECTIONS: CURRENT PRACTICE AND FURTHER DEVELOPMENT</td>
<td>Dr. Philippe Eggimann, Centre Hospitalier Universitaire Vaudois, Switzerland</td>
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<td>TECHNOLOGIC INNOVATIONS TO PREVENT CATHETER-RELATED BLOODSTREAM INFECTIONS</td>
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