Infection Control Resource Teams (ICRT)

*Turning “Lessons Learned” into Outbreak Prevention!*

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Overview

• Infection Control Resource Teams (ICRT)
  • Background
  • Process
  • Common themes/ “lessons learned”

• Turning “lessons learned” into prevention strategies

• Working together to prevent outbreaks – Public Health Units, Public Health Ontario and YOU!
Background

• *Clostridium difficile* infection (CDI) rates made publicly reportable by all Ontario hospitals in September 2008

• Outbreaks of CDI were also added to the reportable disease list

• Public health units indicated that they required support in managing CDI outbreaks

• Minister of Health and Long-Term Care announced formation of Infection Control Resource Teams (ICRTs) to assist public health units and hospitals in management of CDI outbreaks
Role of ICRTs - 2008

- Original plan was for the ICRTs to:

  - Be deployed to hospitals in Ontario
  - Assess and assist in outbreak management
  - Act as expert consulting group to the hospital, operate as hospital’s outbreak management team
  - Work with other local resources including the public health unit, and the regional infection control networks
Experience 2008 to Present

• Visits primarily for CDI outbreaks in hospitals in the early days
• First visit to LTC was for CDI in 2011
• Requests for assistance with ARO outbreaks have increased (some in combination with CDI)
• In 2014, conducted two visits to LTC for other outbreaks (enteric and respiratory)
Infection Control Resource Teams (ICRT)

• Today (since 2013)
  • Team is drawn completely from PHO staff
  • Trigger for request varies – outbreak(s), ongoing transmission e.g. CDI, AROs, enteric or respiratory outbreaks

• ICRT may be requested in a number of ways by acute and long term care facilities:
  • Facility may contact PHO to request assistance; or
  • Local Medical Officer of Health may ask Chief Medical Officer of Health to request assistance from PHO; or
  • Facility and local Public Health Unit may make a joint request
ICRT Process

Request via IPAC mailbox → Pre-visit Questionnaire → Assign Team/Arrange Visit

Assign Team/Arrange Visit → On-site Visit - Interviews

On-site Visit - Interviews → On-site Visit - Tours

On-site Visit - Tours → Share priority issues

Share priority issues → Final Report Issued

Final Report Issued → Follow-up Visit

Follow-up Visit → Assess trends

Assess trends → ICRT Process
Goal of ICRT

- The overall goal of the ICRT is:
  - To provide expert scientific advice on infection prevention and control issues that may be contributing to the issues in the organization.
  - To provide a ‘second set of eyes’ to assist the organization in identifying potential issues and providing recommendations to assist in rectifying these.
- The visit is conducted in a supportive manner and the team focus is on identifying root causes and providing recommendations to assist in the overall management of the outbreak.
ICRT Report

- Executive summary of our findings – what we heard/saw

- Recommendations under:
  - IPAC Program
  - IPAC practices
  - Outbreak management
    - Surveillance/Laboratory
    - Patient flow
    - Communication/Partnerships
  - Environment and equipment
  - Human waste management
  - Education
  - Antimicrobial stewardship
COMMON THEMES

LESSONS LEARNED FROM ICRTs
Lessons Learned

• Prevention is *always* better than control

• A number of issues contribute to outbreaks – generally not just one

• We have the resources to assist us in outbreak prevention
  • PIDAC documents – IPAC Program, RPAP including annexes for ARI, ARO and CDI, Environmental Cleaning, Cleaning/Disinfection/Sterilization
  • Human resources – local public health units, Public Health Ontario (PHO), peers/colleagues, our own staff
IPAC Program

Issues:

- IPAC staffing – below best practice or based on bed #s alone
- Medical leadership – no physician lead/champion for IPAC
- Reporting relationship – IPAC not reporting to senior leader
- IPAC Committee – no committee or dysfunctional
IPAC Practices

Issues:

• Initiation/Discontinuation of Precautions
  • Lack of timely implementation of additional precautions
  • Precautions discontinued without consultation with IPAC

• Hand hygiene
  • No hand hygiene program in place
  • No point-of-care ABHR
  • No audits conducted
  • Auditing done but results not shared
IPAC Practices

Issues:

• Personal Protective Equipment (PPE)
  • Not accessible
  • Staff unaware of appropriate PPE for various types of situations or precautions

Photo Credit: Microsoft Clipart
Outbreak Management

• Overall:
  • No Outbreak Management Team (OMT)
  • Decisions made outside OMT meetings and not shared
  • Corporate support wanes when outbreak prolonged
  • No debrief or follow through with “lessons learned”

• Surveillance:
  • Non-adherence to PIDAC case definition for CDI
  • Screening for AROs not conducted in a timely manner
  • Recognition of patients/residents with symptoms of infection e.g. gastro or acute respiratory infection and timely action not consistent among front-line staff
Outbreak Management

• Patient flow:
  • Frequent bed moves increase risk of exposure and demand for discharge cleaning

• Communication & Partnerships
  • Poor communication and working relationship between IPAC team and units, and/or other departments e.g. ES, Occupational Health
  • Collaboration between Public Health Unit and facility is ineffective
Environment & Equipment

• Issues
  • Confusion related to product selection
  • Impact of increased use of sporicidal agents on equipment
  • Shared toilet brushes
  • Insufficient staff for outbreak response
  • No monitoring of cleaning practices
  • Designation of responsibility for cleaning mobile equipment not clearly defined – everyone’s responsible = no one’s responsible
  • No system for identifying clean and dirty items
Human Waste Management

• Issues
  • No facility-wide system for containment of feces (e.g. hygienic bags, macerators, washers-disinfectors)
  • Shared commode chairs (insufficient numbers)
  • Spray wands still in use
Education

- No regular/ongoing education for staff or physicians
- IPAC not included in development of educational materials
- Resources provided by PHU and PHO not accessible to staff
Antimicrobial Stewardship

• No stewardship program in place or program in progress but insufficient resources to support it
TURNING “LESSONS LEARNED” INTO OUTBREAK PREVENTION!

PREVENTION STRATEGIES
IPAC Program

• Staffing
  • Consistent with programs as well as beds
  • Ability to ramp up in response to outbreaks with no impact on day-to-day (prevention)
  • Knowledgeable ICPs, ideally CIC

• Medical leadership
  • Access to a physician with IPAC knowledge/expertise
  • In-house physician champion to support (and model) IPAC activities
IPAC Program

• Reporting relationship

The ICP(s) should have direct access to the Senior Management individual who is accountable for the organization’s program and who can facilitate the actions that are required.

• IPAC Committee (IPACC)

All health care facilities must have a formal committee structure to oversee the activities of the IPAC program.

• Well functioning, multi-disciplinary committee (including representation from senior leadership)
• Meets regularly to discuss issues/ make recommendations
• Support the implementation and execution of the program by IPAC staff
IPAC Practices

• Initiation of Precautions

Each health care setting should have a policy authorizing any regulated health care professional to initiate the appropriate Additional Precautions at the onset of symptoms and maintain precautions until laboratory results are available to confirm or rule out the diagnosis.
IPAC Practices

• Discontinuation of precautions

The health care setting should have a policy that permits discontinuation of Additional Precautions in consultation with the ICP or designate.
IPAC Practices

Hand Hygiene

All health care settings must implement a hand hygiene program which incorporates the following elements:

• a written policy and procedure regarding hand hygiene
• easy access to hand hygiene agents at point-of-care (70-90% ABHR is preferred and must be provided by the health care setting)
• education that includes indications for hand hygiene, techniques, indications for hand hygiene agents and hand care
• a hand care program
• a program to monitor hand hygiene compliance with audits of hand hygiene practices and feedback to individual employees, managers, chiefs of service and the Medical Advisory Committee via the Infection Prevention and Control Committee
IPAC Practices

Hand Hygiene

• Hand hygiene program which includes:
  • Point-of-care ABHR
  • Education and training
  • Auditing/ feedback

• PPE
  • Right PPE – Right place – Right time
  • Specific to type of precautions
  • Available at the point-of-care
Outbreak Management

• Overall:
  • Multidisciplinary outbreak management team (OMT) established at initiation of outbreak
  • OMT has authority to institute changes in practices or take other actions that are required to control the outbreak
  • Clear communication policies and procedures in place
  • Adequate numbers of staff with appropriate training to increase staffing capacity during outbreaks (e.g. geographically cohort nursing staff)
  • IPAC team has authority to implement outbreak measures up to and including closure of affected units
  • Corporate support throughout the outbreak (organizational priority)
  • Debrief held at end of outbreak to review “lessons learned”
Outbreak Management

Surveillance

• CDI
  • Ensure timely turnaround of lab results
  • Correlation between lab results and patient signs and symptoms (PIDAC case definition)

• AROs
  • High risk patients/residents screened within 24 hrs of admission
  • Patients/residents with exposure e.g. contacts of cases, are placed on Contact Precautions and rescreened (2 sets of specimens taken on different days, with one taken a minimum 7 days after last exposure)
  • Coordination with lab for timely reporting of suspect AROs
Outbreak Management

Surveillance

• Other – Respiratory and Enteric
  • Staff engagement in monitoring/identifying patients or residents with new or worse symptoms of infection and taking action i.e. initiating Additional Precautions
  • Timely notification of ICP and health unit re: potential outbreak
  • Monitoring of staff illness

• Key prevention strategy for respiratory outbreaks:
  • Provide annual Influenza vaccination to staff, patients/residents
Outbreak Management

• Patient flow:
  • Bed moves should be done for medical purposes only (not patient convenience)

• Communication & Partnerships
  • Good communication between IPAC team and units
  • IPAC team has good working relationship with Environmental Services
  • IPAC team has good partnership with Occupational Health and Safety Department
  • Collaboration between Public Health Unit and facility is effective
Environment & Equipment

• Cleaning performed on a routine and consistent basis
  • Written policies and procedures with clear accountabilities and cleaning protocols
  • Adequate resources dedicated to Environmental Services to allow thorough and timely cleaning and disinfection; appropriate levels of supervisory staff
  • Clarity around which product to use for routine/additional cleaning
  • Education program in place for new and experienced ES staff

• Process is in place for cleaning of shared patient equipment

• System for identification and storage of clean and dirty equipment
Environment & Equipment

- Toilet brushes/swabs should not be carried from room-to-room (remain in the room or use disposable)

Environmental Cleaning for CDI:

- Twice daily cleaning of patient/resident room using hospital grade disinfectant or sporicide
- Daily cleaning of patient/resident bathroom/commode with a sporicide
- Use of sporicide for cleaning of patient/resident room on transfer/discharge or discontinuation of contact precautions.
- Double clean room on patient/resident discharge/transfer
Human Waste Management

Interventions to minimize transmission of C. difficile (and other organisms):

• Implement facility-wide system for containment of feces

• Handle commodes and bedpans very carefully to reduce spread of contamination with C. difficile spores from the commode/ bedpan to the environment:
  • Dedicate commode chair to the patient/resident
  • Clean and disinfect commode with a sporicide whenever the room/ bathroom is cleaned; also, when precautions are discontinued before using with another patient/resident
  • Disposable bedpans strongly recommended
  • Bedpan cleaning wands or toilet taps should not be used
Education

• IPAC education and training on Routine Practices/Additional Precautions (RP/AP)
  • All staff on hire - orientation
  • Ongoing continuing education
  • Physician education (consider as part of credentialing?)
  • IPAC actively participates in the planning and implementation of education
  • Includes (at a minimum) – hand hygiene, appropriate selection and use of PPE (for both RP and AP)
  • IPAC resources and tools to support staff and assist with decision-making are accessible at the front-line
Antimicrobial Stewardship

• Antimicrobial Stewardship Program (ASP) in place
• Dedicated resources to support the program
Prevention – It starts with YOU!

Top 10 Prevention Strategies:

1. Staff engagement in surveillance – early identification and management of patients/residents with infection or colonization

2. Robust hand hygiene program – POC ABHR, education, audits

3. Accessible PPE and staff education (what to wear and how to wear it – donning/doffing)

4. Good **routine** cleaning practices and monitoring process; system for equipment cleaning (what, how and who) and identification of clean/dirty
Top 10 (cont’d)

5. Facility-wide system for human waste management

6. Annual Influenza vaccination for patients/residents and staff

7. Well functioning IPACC and core OMT

8. Good working relationship between IPAC and other departments/units including regular communication

9. IPAC as an organizational priority – support from senior leadership

10. ICP/IPAC Team that is knowledgeable, approachable and respected

It starts with YOU!
How can we help?

• Assistance available through PHUs and RICNs
  • Surveillance resources
  • Checklists/ audit tools
  • Sample signage for AP
  • Support for staff education/training

• Other resources available from PHO
  • Core Competency modules
  • Environmental Cleaning Toolkit
  • Disease specific info on website e.g. CDI

Visit [http://www.publichealthontario.ca/en/Pages/default.aspx](http://www.publichealthontario.ca/en/Pages/default.aspx)
Thank you!