Infection Control Practices in First Response Emergency Services
Margaret McKenzie, City of Edmonton, Alberta
A Webber Training Teleclass

Science or Attitude?

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Objectives

- Identify role of Infection Control in Emergency Response settings
- Identify components of any IC program
- Describe IC processes essential to preparing a department to function in a crisis

What does IC do?

- IC program in Emergency Response setting uses:
  - principles of infection prevention and control, and
  - peer reviewed, published literature
- to influence the practice of first responders

Program Goals*

- Regardless of the setting:
  - Protect the patient
  - Protect the health care worker, others in the care environment
  - Accomplish these 2 goals in a
efficient; and
cost effective manner

*Constance Friedman et al. AJIC, Vol. 27, No.5, October 1999

What does this achieve?

- A single standard of care across the health care continuum -- from curb side to grave!
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### Principle functions of IC program
- Surveillance  
- Policies and Procedures  
- Intervention to prevent infections  
- Education and training  
- Resources

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### Surveillance
- Definitions relevant to the setting  
- Simple and of practical importance  
- Access to relevant computerized data bases  
- Able to be shared across the continuum of care e.g. Public Health

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### Developing Policies & Procedures
- Appropriate and feasible  
  - address all elements of care  
  - current  
  - accessible to staff  
- Compliant with regulations, guidelines, accreditation, etc.  
- Evidence-based  
  - consistent with scientific knowledge and/or expert consensus

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### Interventions
- Prevent the transmission of infections  
- Improve performance by identifying trends and intervening to change practice  
- Control outbreaks

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### Education and Training
- Rudimentary knowledge of infections specific to practice setting...  
- allows better understanding of the practices required to prevent transmission

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### Resources
- Infection control must *clearly* be the responsibility of one person  
  - Specific knowledge and training relevant to infection control and epidemiology  
  - More effective

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Resources

- Responsible person must:
  - have **authority** to carry out the components of the program
  - be supported by administration

Challenge!

- 1994: First Responders met with Health Canada
  - Guidelines for post-exposure notification developed and published
  - Created a paradigm of self protection, rather than focusing equally on the quality of patient care

OK!!

- Let's use these program components to answer some questions.

Hospital type surveillance

- Incidence of pneumonia occurring in patients intubated in the field.
- Rate of IV site infections occurring in IV’s started in the field
- Focussed community surveillance
  - Few departments have the sophistication to do this type of surveillance

Surveillance

"Who of your ambulance staff were in the Emergency department between 2300 hrs on Friday and 1800 hrs Sunday ?"

"How many of them were wearing N95 masks?"

Scenario: suspected Anthrax event

- Fire Department:
  - How many of your FF were at the incident?
  - What level of protection were they wearing?
  - Were any of them exposed?
  - *(What is the definition of “exposure”)*
Is this documentation enough?
- “2 firefighters suited up and entered the building”
  - Who?
  - Level of protection?
  - Hot zone?
  - How long were they in there?
  - What were they doing while they were there?

Retaining and managing data
- Do you have a mechanism for managing large numbers of records?
- Can you create, *easily*, ongoing reports for management?

ACTION?
- What do you do with the information?
- Information gathered should be used to change practice

Policies and Procedures
- Do you have policies in place addressing the basics?
- Are they up to date?
- Are you aware of current national, provincial and municipal legislation and how it affects you?

Policy development
- work with hospitals and public health officials
- develop guidelines that are meaningful …*and workable*… for all players
- are you all using the same language?

Policy development
- A system must have:
  - Practiced communication
  - **Trust**
  - **Respect** for the others’ area of function
- OR it is doomed to fail under pressure!
Guidelines
- Which ones do you follow?
- Why?

Other Important References
- APIC/CHICA Canada Infection Control and Epidemiology: Professional Practice Standards, AJIC Vol. 27 No. 1, February 1999
- Guidelines such as :
  - IV Guidelines
  - Prevention of Nosocomial Pneumonia Guidelines
  - Routine Practices/Standard Precautions

Students and volunteers
- What to do with students in a crisis?
  - Discuss with educational facilities
  - Do you have a policy or written agreement
- What is your volunteer policy?
  - Is there a cadre who could help by working in non-risk situations?

Interventions
- Where can we get basic information?
Interventions: Employee Health

- Do you have an employee health program?
- Are your staff offered vaccinations when appropriate?

Interventions: Engineering

Practices for intervention

- What do we do to prevent the spread of bugs in our environment?

Practices

- Check –
  - **When** do you –
    - Put your gloves on
    - Take your gloves off
    - Clean your ambulance
    - Clean your equipment
  - **What** do you touch with your gloved hands when you get to Emerg.
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Cleaning & Disinfection
- How do you clean?
- What product do you use?
- Do you do your own laundry?
- Do you understand the basic principles of disinfection and sterilization?

Clinical Practice
- What safety precautions do you have in place for patient & medic
  - Intubation
  - Suctioning
  - Nebulization
  - Other aerosolizing procedures?
- What PPE do you have available?

Education & Training
- IC not a free standing program
- A thread woven through all education programs
- IC personnel should be involved in all planning for education

Challenges!
- Response times/Transport times!
- Shift rotations
- Activity/experience
  ... however ...
  - computers
  - teleconferences
  - conferences… be creative!

Resources
- Create the opportunity for your own staff to get IC training
- Refer to the National IC Association (CHICA-Canada) www.chica.org
- Training courses
- OR
- Hire a consultant!!

Science or Attitude?
- Infection Control is based on science, incorporated into policy and protocols, communicated by education and training, & supported by practiced interventions.
- Without attitude in practice IC objectives will not be met.
Thank you!

Questions?

Other 2005 Teleclasses
For more information, refer to www.webbertraining.com/schedule.cfm

July 14 – Emerging Infectious Diseases
with Dr. Coleman Rotstein

July 19 – After the Tsunami: Infection Control in Natural Disasters

August 11 – Effective Presentation of Infection Control Data
with Bonnie Bamard

August 25 – Community Acquired MRSA, A Growing Problem
with Dr. Rachel Gorwitz

Questions? Contact Paul Webber paul@webbertraining.com