

# Infection Control Practices in First Response Emergency Services

Margaret McKenzie, City of Edmonton, Alberta  
A Webber Training Teleclass

## Infection Control Practices in First Response Emergency Services...

### Science or Attitude?

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## Infection Prevention & Control

*An Attitude in Action...*



## 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
  - ◆ timely;
  - ◆ efficient; and
  - ◆ cost effective manner

\*Candace 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

## 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

## 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

## Interventions

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

## Education and Training

- ◆ Rudimentary knowledge of infections specific to practice setting...
- ◆ allows better understanding of the practices required to prevent transmission

## 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 focussing 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"*)

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## 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!



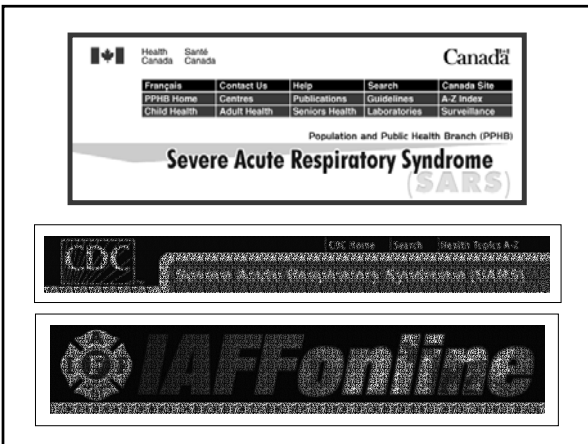
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## Guidelines

- ◆ Which ones do you follow?
- ◆ Why?



## Other Important References

- ◆ Friedman et al *Requirements for the infrastructure and essential activities of infection control and epidemiology in out of hospital settings: A Consensus Panel report AJIC Vol 27, No 5, October 1999.*
- ◆ 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?

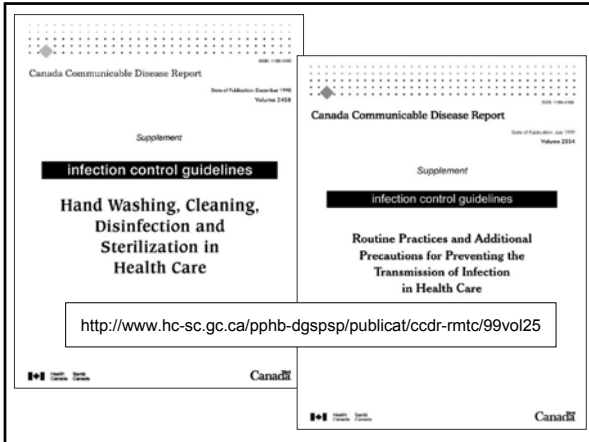
## Interventions

- ◆ Where can we get basic information?

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## Interventions: Employee Health

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

## Intervention for Prevention

- ◆ Do you have an exposure management program?
- ◆ Do you follow Public Health guidance for restricting workers with communicable diseases?
- ◆ Does someone have expertise and **authority** to identify and take control of an outbreak situation?

## 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](http://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.

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