


Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass

Planning for Infectious Disease Disasters in Ambulatory Care Centers

Terri Rebmann, PhD, RN, CIC



Hosted by Paul Webber
paul@webbertraining.com


www.webbertraining.com September 9, 2010

Objectives


- Describe threat of IDD's
- Planning for IDD's in ACC's
 - Triage/screening, isolation, decon, etc
- Address infection prevention in ACC's during disasters
- Occupational health concerns in ACC's during disasters

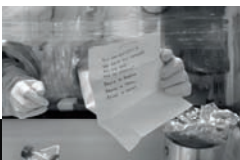

Types of Disasters/Mass Casualty Events

Natural vs man-made



Infectious disease related vs non infectious disease related



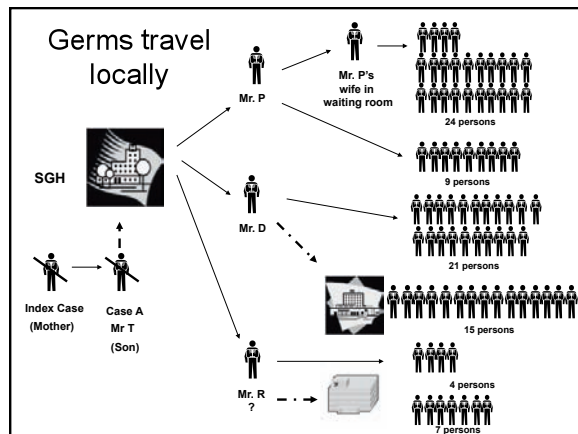
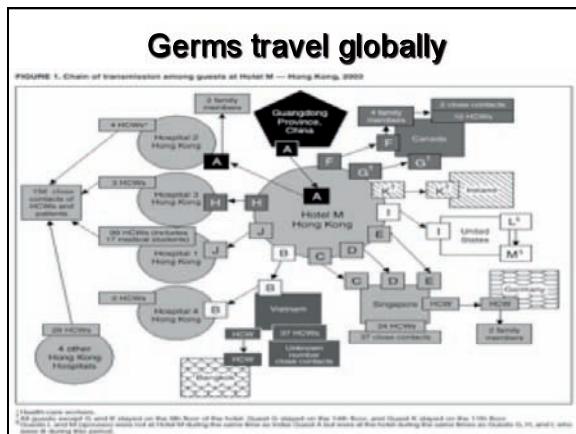
Infectious Disease Disasters



Battling Bioterrorism

- Pandemic
- Bioterrorism
- Emerging infectious disease



Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com

Planning for Infectious Disease Disasters in Ambulatory Care Settings
Dr. Teri Rebman
A Webber Training Teleclass

Germs Travel With People

Germs Travel with Animals

Usually not a healthcare issue.....

Pets in ambulatory care centers

Germs & the Environment

Impact of 2003 SARS Outbreak

SARS Demographics 2003 Outbreak

Total cases:	8,096
Mortality rate:	9.6%

44% of cases in Toronto were HCWs

H1N1: Real Life Test of Preparedness for Infectious Disease Disasters

Impact of 2009 H1N1 Pandemic

- Pandemic considered "moderate" in terms of morb & mort
 - Some areas/populations affected worse
- 43 – 89 million cases in U.S.
- 8,900 – 18,300 deaths in U.S.
- Ended June 23rd in U.S.
- Ended worldwide Aug 10, 2010

Hosted by Paul Webber paul@webbertraining.com
 www.webbertraining.com

Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass

Potential Future Impact of Pandemic

- Potential for high morb & mort
- Costs: \$71 - \$166 billion
- 865,000 – 9.9 million hospital stays
- 45 million additional outpatient visits

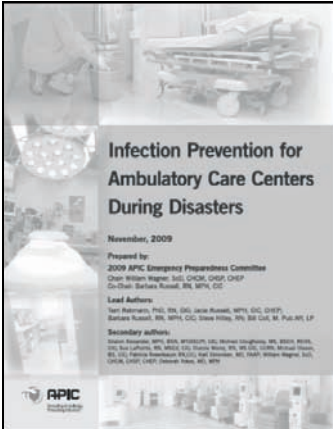


Pandemic

- National and global event
 - Difficult to get outside help
- Longer event than other disasters
 - Wave: 6 – 12 weeks
- High absenteeism rate (>40%)

**Sick HCWs
may contribute
to the outbreak**





**Recommendations
based on
APIC Guidance
document**

www.apic.org

Infection Transmission in Ambulatory Care Center

- Communicable disease spread
 - Likely to be endemic disease in community
 - Measles, chickenpox, influenza
- Healthcare associated infections
 - Urinary tract infection
 - Bloodstream infection
 - Surgical site infection

Infection Prevention Coverage

- Best if Infection Preventionist involved
 - At least as consultant in planning stages
- Need IP designee
for coverage
on site



May Need to Increase Surge Capacity

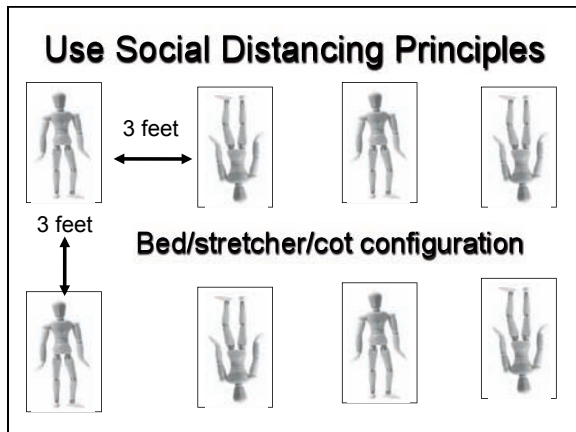
- Increase number of pts that can be seen
 - Extra beds, staff, supplies, linens, PPE
- Expand into non-clinical areas or buildings
- Stretchers, cots, other makeshift beds
- Double-up pts in rooms/areas
 - Screen pts for contagious illness first

Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com

Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass



Screening/Identifying Potentially Contagious Individuals

- Screening extent will depend on event
 - Formal vs informal screening
- Contagious disease involved
 - Extensive screening needed
 - Patients, staff & visitors need to be screened

APPENDIX C
Syndromic Surveillance Assessment/Triage Form

Name: _____

Temperature: _____ (in degrees Fahrenheit)

Do you currently have the following symptoms?

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Cough
<input type="checkbox"/>	<input type="checkbox"/>	If you have a cough, is your sputum bloody?
<input type="checkbox"/>	<input type="checkbox"/>	Runny nose
<input type="checkbox"/>	<input type="checkbox"/>	Loose or unformed stools
<input type="checkbox"/>	<input type="checkbox"/>	Watery or explosive diarrhea stools
<input type="checkbox"/>	<input type="checkbox"/>	Bloody stools
<input type="checkbox"/>	<input type="checkbox"/>	Rash
<input type="checkbox"/>	<input type="checkbox"/>	If you have a rash, is it itchy?
<input type="checkbox"/>	<input type="checkbox"/>	Stiff/sore neck
<input type="checkbox"/>	<input type="checkbox"/>	Red eye or drainage from eye(s)
<input type="checkbox"/>	<input type="checkbox"/>	Wound or lesion
<input type="checkbox"/>	<input type="checkbox"/>	Have you been hospitalized within the past 3 months?
<input type="checkbox"/>	<input type="checkbox"/>	Have you been told that you have a multidrug resistant organism (MRSA, VRE, etc)?
<input type="checkbox"/>	<input type="checkbox"/>	Are you an ACS worker?
<input type="checkbox"/>	<input type="checkbox"/>	Are you currently on any antibiotic treatment? If Yes, list _____
<input type="checkbox"/>	<input type="checkbox"/>	Have you received any vaccinations in accordance with health department recommendations related to this event? If Yes, list and give date administered _____

Name of person completing the form: _____ Date: _____

Example of generic formal screening tool

Generic tool vs disease-specific

Formal Screening

- Best to use HCW
- If resources do not allow, train the screener well
- Screeners wear PPE

Student screeners used during SARS outbreak in Canada

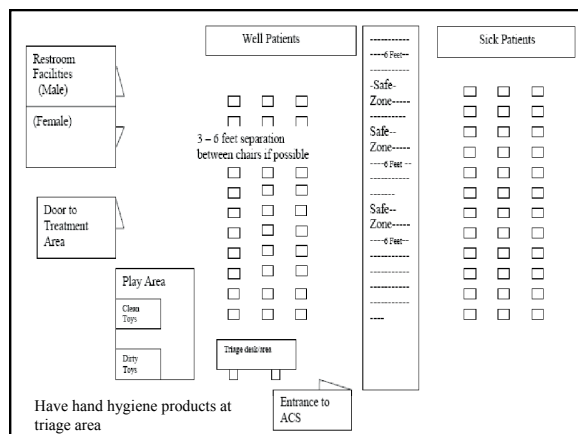
Picture source: Jennie Mayfield

Screening

- Set up outside, if possible
 - Otherwise right inside entrance
- Lock off other entrances to center

Screening outside of ambulatory care clinic

Picture source: Jennie Mayfield




Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass

Staff Screening


- **Frequency during infectious disease disaster:**
 - Formal screening before each shift
 - Report symptoms between shifts
- **Consider separate entrance**
- **Medically evaluate sick staff or send home**



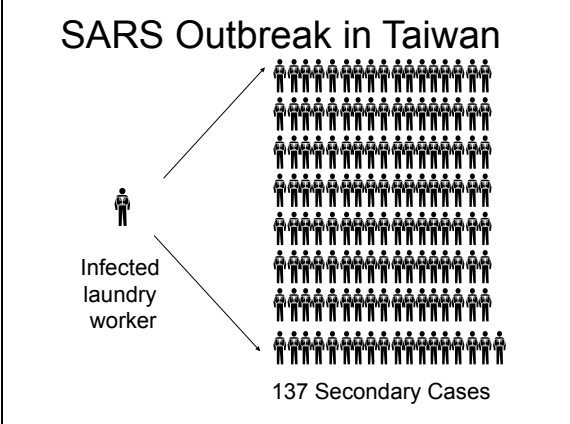
Picture source: Jennie Mayfield

Furloughing Staff

- Do not want sick staff working
- Length of furlough depends on disease/ event
- Need policy on work restriction



SARS Outbreak in Taiwan




Infected laundry worker

137 Secondary Cases


Anti-Infective Therapy & Prophylaxis

- Administer to patients & staff
 - Follow case definition & public health protocols
- USDHHS' pre-exposure prophylaxis recommendation



Vaccine

- **Before an event:**
 - Encourage annual flu vaccine
 - Monitor compliance rate
- **During an event:**
 - Administer to pts & staff as needed
 - Follow public health protocols



Prioritization Plan for Pharmaceuticals

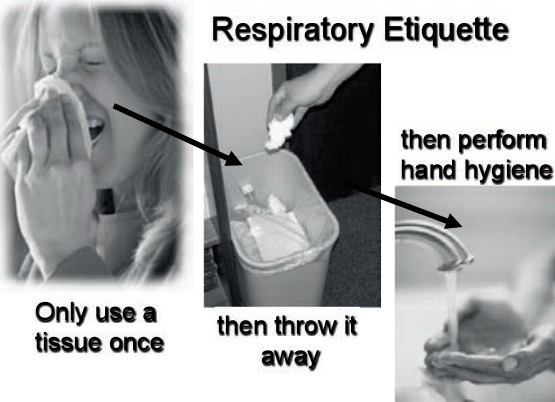
- Shortages of meds & vaccine likely
- Have prioritization plan for staff
 - Define high risk staff
 - Define high risk exposure
 - Example: When meds are limited during flu pandemic, reserve for staff performing aerosolizing procedures or providing direct care to pts

Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass

Respiratory Etiquette



Only use a tissue once

then throw it away

then perform hand hygiene

Choosing Isolation Category

- Disease known: Follow HICPAC
- Undiagnosed: transmission based precautions

Symptoms Isolation Precautions Needed

Cough, runny nose, watery eyes = Standard

Fever & cough (adults) = Droplet

Fever & cough (kids) = Droplet & Contact


Fever, cough, bloody sputum, & wt loss = Airborne

Eye infection or drainage = Standard

Isolation in Ambulatory Care Center

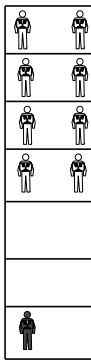
- Place in private room
- Put PPE for staff outside of room
- Post isolation sign

Improved PPE cart



Picture source: Jennie Mayfield

Improvised Isolation Area




- Improvising isolation area
 - Physically separate the pt
 - Building or area outside can be used
 - Best if room/area has walls & a door
 - Makeshift walls/doors
 - Plastic or other barrier material
 - Hang isolation sign near entrance

Airborne Isolation in Ambulatory Care Center

- Hospital better
- Bronchoscopy room may be AIIR
- Improvise negative pressure

Temporary negative pressure rooms/areas used in Toronto during SARS



Picture source: Jennie Mayfield

Environmental Decontamination

- Cleaning pt care areas
- Reprocessing equipment
- "White powder" incidents




Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass


Cleaning Patient Care Areas

- Clean all horizontal surfaces daily
- Clean between pts for Contact Isolation
- Allow for adequate contact/dwell time
- Focus on high-touch areas




Cohort Staff

- Assign dedicated staff to contagious pts
 - Minimizes number of staff exposed
- Use vaccinated staff whenever possible
 - Disease/event specific guidelines



Visitor Management

- Limit visitors
- Do not allow sick visitors in (i.e., screen)
 - Exception: parent of sick pediatric patient
- Limit entrances
- May need crowd control




Picture source:
Jennie Mayfield

If Your Site Performs Surgery

- Should have good infection prevention protocols for routine practice in place
- During an IDD:
 - Reschedule contagious pts if possible
 - Until not contagious or last case of day
- Perform vigilant environmental decon

Managing Surgical Equipment

- Use disposable equipment once then discard
- Reprocess reusable medical equipment between uses



Reprocessing Equipment		
Device classification	Device examples	Disinfection Process
Critical: Enters sterile tissue or vascular system	Surgical instruments, needles, implants, IUD's, etc	Sterilization
Semicritical: Touches mucous membranes or broken skin	Speculum, respiratory therapy equipment, laryngoscope blades, etc	Intermediate or High-level
Noncritical: Touches intact skin	Stethoscope, exam table, blood pressure cuff, etc	Low level

Planning for Infectious Disease Disasters in Ambulatory Care Settings

Dr. Teri Rebman

A Webber Training Teleclass

Animal Management

- Only service animals allowed in ACC
- Coordinate with community disaster planners for emergency pet kennels



Photo courtesy of FEMA



Staff Education

- Before event & just-in-time during event
 - Triage/screening
 - Employee exposure management
 - Basic infection prevention (disease transmission, isolation, hand hygiene, etc)
 - Social distancing
 - Environmental decon, cleaning, disinfection

Talk to Staff about Having a Personal/Family Disaster Plan



In Conclusion

- Infectious disease spread likely during an IDD
- Need good infection prevention practices
- Get involved in local disaster planning
- Have a personal disaster plan & encourage staff to have one

Contact Me

Terri Rebmann, PhD, RN, CIC
 Assistant Professor
 Institute for Biosecurity
 Saint Louis University, School of Public Health
 3545 Lafayette Room 463
 St Louis, MO 63104
 Phone: (314) 977-8260
 Fax: (314) 977-8150
 Email: rebmannt@slu.edu
 Website: www.bioterrorism.slu.edu

The Next Few Teleclasses

16 Sep. 10	Lessons Learned From the Canadian Listeriosis Outbreak Speaker: Dr. Franco Pagotto, Health Canada
20 Sep. 10	(Free British Teleclass ... Live Broadcast from the IPS Conference, UK) The Evolving Role of Epidemiology in Infection Prevention Speaker: Prof. Jacqui Reilly, Health Protection Scotland
22 Sep. 10	(Free British Teleclass ... Live Broadcast from the IPS Conference, UK) Preventing and Controlling ESBL's, The Future is Here Speaker: Prof. Hilary Humphreys, Royal College of Surgeons
29 Sep. 10	(Free Teleclass) Voices of CHICA – Part 2 Speaker: Community and Hospital Infection Control Association of Canada Board Members and Guests
30 Sep. 10	Prevention of Mother to Child Transmission of HIV Speaker: Dr. Kay Libbus, University of Missouri
13 Oct. 10	(South Pacific Teleclass) Infection Control in the Tropics Speaker: Claire Boardman, VICNISS Australia

www.webbertraining.com.schedule1.php

Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com