Viral Outbreaks: Working and Collaborating with Everyone Involved
Ebola
## 20th Century Pandemics

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>TIME</th>
<th>CASUALTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish flu</td>
<td>1918</td>
<td>40–50 million</td>
</tr>
<tr>
<td>Asian flu</td>
<td>1957</td>
<td>1-2 million</td>
</tr>
<tr>
<td>Hong Kong flu</td>
<td>1968</td>
<td>1 million</td>
</tr>
</tbody>
</table>
Why Does it Matter?

• When viruses cause national or global outbreaks of life-threatening diseases, risk management has a crucial role to play in the race against time

• Companies face risks to both their employees and their revenues

• Business interruption

• Very large impacts - low probability of occurrence
Proactive Services: High Level Clean
Proactive Services: ICRA
The Role of ICRA

- Detailed job scope
- Location of project
- Persons and organizations adjacent to the work space
- Duration of the project
- The risk group of the patients in the work area
- Will the work area be occupied by patients
Reducing HAI is good for the patient, staff, and bottom line.

The fourth leading cause of death in the United States, costing the healthcare system more than $40 billion a year.

More deaths a year than breast cancer, AIDS and automotive accidents combined. This equates to the crash of a commercial 747 airliner every day (271/day).

87% of the medical facilities do not take the recommended steps to prevent infections.
Hospital Renovations Cited in Lawsuit

St. Petersburg Times

- St. Joseph’s Hospital in Tampa
- Lawsuit claims 3 kids died from hospital mold – pediatric cancer patients
- Fungal infections at the facility
- Hospital failed to properly seal off an area under renovation
Federal Prosecutors Charge 14 in Deadly Meningitis Outbreak

- More than 750 patients in 20 states contracted fungal infections after receiving injections. Of those, 64 died, making the incident the deadliest meningitis outbreak in U.S. history.

- A dozen other people associated with NECC, including six pharmacists, the director of operations, the national sales director and two of the company’s other owners, were charged with a range of crimes.
Penalties for HAIs

- Beginning in 2015, hospitals with the highest rates of HAIs will be penalized one percent of their Medicare payment.
- The new system encourages competition amongst hospitals to lower the amount HAIs.
- Future reform by the U.S. Department of Health and Human Services may choose to expand the HAI pool to include additional facilities, home health agencies, ambulatory surgical centers and skilled nursing facilities.
• 724 Hospitals have already been penalized. Their Medicare payments are reduced by a percentage till Sept. 2015

• 2,610 Hospitals have been fined by Medicare. 39 of those hospitals are receiving the highest penalty allowed. Over the course of this year, the fines will total about $428 million
Community Acquired Infections (CAIs)

• The frequency of resistance to antibiotics among community acquired infections and the number of drugs to which they are resistant is increasing.

• The boundaries between community and hospital environments are becoming more blurred.

• Community-acquired pneumonia is responsible for an average of 4.5 million visits annually to physicians' offices, emergency departments, and outpatient clinics.

• Infections are lurking in schools, shopping malls, public transportation, hotels, etc.
Reactive Services
Incident Response
HAZWOPER Categories

- Facility
- Waste Management
- Emergency Response Operation
Emergency Response Operation

• Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.

• Divided by OSHA into five levels:
  • First Responder Awareness
  • First Responder Operational
  • Hazardous Material Technician
  • Hazardous Material Specialist
  • Hazardous Material On scene Incident Commander

• Several levels of training, however, general site workers initially require 40 hours of instruction, three days of supervised hands on training, and many hours of incident specific and refresher training annually
Incident Response Services

- Rapid Response Service in the case of suspected or confirmed Infectious disease
- Triage of entry site
- Evaluate travel path
- Control exposure between one segment of occupants and the general occupancy
- Evaluate cross-contaminated pathways
- Deploy clean-up operations, including HAZWOPERs
**Categories of Ebola Care Facilities**

**Frontline Healthcare Facility**
- Identifies patients with Ebola.
- Notifies State and Local public health officials.
- Has equipment to provide care for 12-24 hours.

**Ebola Assessment Hospital**
- Safely receives and isolates a possible patient.
- Provides lab evaluation.
- Provides patient care for up to 5 days.

**Ebola Treatment Center**
- Safely receives and isolates a confirmed Ebola patient.
- Is prepared to care for patient for duration of illness.
- Restocks supplies as needed.
- Has sustainable staffing plan that is ready to deploy and assist as needed.
Requirement for Minimum Capability

- Space should parallel the staffing requirements
- Intra-facility plans for patient transport
- Clinical laboratory testing and clinical decision-making
- Personnel have been trained in waste management
- Readiness plans include input from a multidisciplinary team
Requirement for Minimum Capability

- Staffing plans scheduled to support 96 consecutive hours of clinical care
- Private room with in-room dedicated bathroom
- Dedicated patient-care equipment
Requirement for Minimum Capability

- Hospital program to clean and disinfect patient care areas and equipment.
- Designated staff are training to clean and disinfect correctly.
- Staff are properly supervised during all cleaning and disinfection.
- Safe practices are followed – including PPE.
Requirement for Minimum Capability

- Space available to allow a trained observer donning/doffing PPE.
- Facility-wide operational capacity to manage several weeks of care.
Exhibit A
Outdoor ACH: 12.3
Room ACH: 31.4
Pressure: -24.9 Pa

Exhibit B
Outdoor ACH: 9.4
Room ACH: 24.9
Pressure: -7.2 Pa
Hazard Zones
Bibliography

- http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html
- Staffing of Patient Care Team, Section B, Item 6. CDC Assessment Tool for Ebola Treatment Centers and Assessment Hospitals, version 5-18-2015 (v17)