Newbie’s Guide to Policy Development

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Learning Objectives

- Examine the quality, accessibility, and feasibility of existing infection control policies in place at your facility
- Determine the highest-priority policies and procedures to implement quickly in the face of a facility outbreak or emerging threat
- Utilize tools provided to implement best practices in early outbreak situations or before outbreak situations occur
Are We Prepared?

- Survey of 1,603 practicing physicians across multiple specialties (2011-2012)
- 50% felt prepared to handle a natural disaster, foodborne illness, or major outbreak of an airborne infection
- 44% did not know whether their hospital had an emergency plan

Preparedness Tools

- Two recent systematic reviews of evaluation tools for hospital preparedness highlight the need for improvement
- Most evaluation tools focused on structural components and paid little attention to the functional aspects of hospitals
- None of the checklists or tools included all dimensions for hospital preparedness or were specific for biologic threats
What We Will Cover

- Risk assessment
- Early identification of patients
- Facility design
- Infrastructure
- Training
- Laboratory management
- Staffing
- Patient care

Risk Assessment: How Can You Assess Risk?

- Likelihood of event happening (0-3)
- Severity of impact (1-3)
- Mitigation by preparedness (0-3)

<table>
<thead>
<tr>
<th>Program Components</th>
<th>Probability of Performance Failure</th>
<th>Impact (Clinical/Financial/Resources)</th>
<th>Infection Prevention Systems</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current policies or procedures related to infection control and prevention</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Excellent</td>
</tr>
<tr>
<td>Established policy or procedures—safe injection practices</td>
<td>Medium</td>
<td>Medium</td>
<td>Minimum</td>
<td>Poor</td>
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<tr>
<td>Preparedness</td>
<td>Low</td>
<td>Low</td>
<td>Never</td>
<td>Fair</td>
</tr>
<tr>
<td>Bioterrorism agents</td>
<td>Never</td>
<td>Never</td>
<td>Minimal</td>
<td>Good</td>
</tr>
<tr>
<td>Norovirus/influenza/other respiratory infections</td>
<td>Never</td>
<td>Never</td>
<td>Minimal</td>
<td>Good</td>
</tr>
<tr>
<td>Outbreak community ID risks—lice/scabies/bed bugs</td>
<td>Never</td>
<td>Never</td>
<td>Minimal</td>
<td>Good</td>
</tr>
</tbody>
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APIC. www.community.apic.org.
Specific Considerations for Influx of an Infectious Agent

- Population served by the hospital
- Travelers
  - Proximity of hospital to a major airport
  - Travelers from specific areas that visit the region
- Industry near the hospital
  - Farms/animal exposure
  - Research facilities with possible exposures

Early Identification of Patients: What Should You Be Thinking About?

- Clusters of infections in the community
- Emerging infections in other countries
  - Plague
  - MERS-CoV
  - Avian influenza
  - Viral hemorrhagic fever
- Communication of potential threats to bedside staff, administration, and the public
  - Keeping staff up-to-date without creating alarm fatigue
Resources for Information on Emerging Infections

- Public health department
- ProMed (www.promedmail.org)
- Center for Infectious Disease Research and Policy (www.cidrap.umn.edu)
- CDC Current Outbreak List (www.cdc.gov/outbreaks)
- Disease Outbreak News (www.who.int/csr/don/en)

Travel Screening: Are You Prepared for Active Travel Screening?

- Passive travel screening
  - Passive approach would involve patient signs and clinician education
- Active travel screening
  - Patients should be screened reliably and at all points of entry
    - Surgery, outpatient sites, emergency rooms, admissions, self-register kiosks
    - Consider leveraging the EHR
  - If a positive screen occurs, have a process in place for escalation
  - Establish the availability of expert and support personnel outside of regular hours
Lessons Learned

- It is critical to screen at all points of entry
- Frontline staff training and communication is essential
  - Assess staff knowledge on the communication pathway
  - Initiate immediate proper isolation for patients who screen positive
- The travel screen should be simple and easy to conduct

Facility Design: Is Your Facility Ready?

- Preparing a facility for an infectious agent requires:
  - A private area to care for patients away from other patients or public areas
  - The capacity for patient isolation
    - Negative pressure rooms
    - Conversions of direction of airflow direction—individual room or units
  - The capacity for patient overflow
    - Create additional triage/patient care areas (eg, ED, tents)
    - Collaborate with the public health department, schools, and churches
Infrastructure: Do You Have a Hospital Incident Command Center?

- All hospitals credentialed by the joint commission have emergency management plans
- Who is responsible for each component of the plan?
- What tasks are a part of each component of the plan?
- Use the infrastructure of this plan to test for preparedness in an outbreak setting

Sample Work Plan Template

<table>
<thead>
<tr>
<th>Categories</th>
<th>Tasks</th>
<th>Key Person Responsible</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and guidelines</td>
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<td>Training</td>
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<tr>
<td>Exercises</td>
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<td>Direction of patient care</td>
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<tr>
<td>Operational management</td>
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<td>(command center)</td>
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<tr>
<td>Facility</td>
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<tr>
<td>Communication</td>
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<tr>
<td>Waste management</td>
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<tr>
<td>Equipment</td>
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<tr>
<td>Cleaning</td>
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<tr>
<td>Throughput</td>
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<td>Staffing</td>
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<td>Finance</td>
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Communication: External and Internal

- Multiple lines of communication needed
- General public
  - Maintain confidentiality
  - Manage media
- Public health departments
  - Contact persons from the hospital and public health department
  - Confirm availability for off-hours communication
- Internal operational communication
  - Bedside staff should provide reassurance and relay changes in operations
  - Be consistent with messaging

Call Tree

- Identify all individuals who need to be contacted
- Save up-to-date contact information for all of those individuals
- Hold training to ensure that each person on the list does not receive multiple phone calls
- Consider a commercial software system to initiate automatic alerts that have been prespecified
- Have a call-in number to ensure that everyone gets the same message
Lessons Learned

- Make sure all phone numbers are up-to-date
- Have regular drills
- Include hospital leadership in town halls with bedside staff to build trust and show that leadership is committed to ensuring staff safety
- Be transparent and honest
- Circle back to check staff understanding and the potential need for additional messaging

Training: How Do You Best Prepare Staff?

- Incorrect PPE and frequent self-contamination are commonly found in evaluations of healthcare settings
  - In an observational study of 30 HCW, only 17% removed PPE in the correct order and disposed of it in the patient room
  - A point-prevalence study in 4 hospitals showed contamination in 200/435 episodes of gown and glove removal
  - An assessment of self-contamination when trained HCP doffed EVD PPE using a standardized protocol demonstrated that:
    - A structured doffing protocol with a trained monitor reduced rates of contamination
    - Nonenveloped viruses showed more contamination than enveloped viruses

Key Components of a Training Program

- A competency-based training program should be implemented for PPE use.
- Training includes:
  1. Appropriate indications for specific PPE components
  2. Proper donning, doffing, adjustment, and wear of PPE
  3. Proper care, maintenance, useful life, and disposal of PPE
- Training should be provided to all personnel who use PPE
- Re-training should be provided to prevent deterioration of learned skills

Training Skills

- Education on donning and doffing effectively
- Tabletop of simulation drills
- “Tracer” drills
Which Methods Are the Most Effective?

- A 2008 meta-analysis of 258 studies investigated whether disaster preparedness training interventions improve knowledge and skills in disaster response
  - Not enough evidence to draw a conclusion
  - Outpatient clinics: computer- and lecture-based methods may be beneficial
  - In-hospital clinicians: not enough information to make comparisons

Laboratory Management: How Do You Best Prepare Your Laboratory?

- Communicate with laboratory personnel before ordering testing
- Determine the availability of trained staff off-hours
- Train laboratory staff on PPE and cleaning laboratory equipment
- Deliver specimens to the laboratory (avoid the tube system)
- Designate areas where laboratory specimens are handled
- Plan for which tests will be performed
- Establish policies for shipping specimens to the state health department/CDC
Mortuary Services

- Establish how/where a body will be transported if an individual dies
- Identify local funeral homes that are willing to handle contagious diseases
- Train funeral directors to use PPE

Waste Management

- Plan early
- Consider all types of waste:
  - PPE
  - Contaminated equipment and supplies
  - Sewage
- Make a plan that extends beyond the hospital; communicate with the state health department, local water treatment department, and waste-handling vendors
Staffing: How Do You Ensure You Have a Staff Ready and Able to Respond?

- **Willingness to respond**
  - 25%-50% of hospital staff would not be willing to work during a biologic disaster or pandemic influenza
  - Concern for family is the greatest factor in the lack of willingness to work

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Key HR Policy Decisions

- **Volunteer versus requirement to work**
- **Fitness to work**
  - Pregnancy
  - Trainees
  - Physical fitness
- **Psychological support**
  - Evaluate whether supplementary pay will be offered
    - Hazard pay
    - Training time
    - Call time
What If a Staff Member Is Exposed?

- Monitor symptoms
- Implement a post-exposure furlough
  - Paid time if exposed
  - Housing resources (protect family members)
  - Must stay home after exposure
- Implement travel restrictions

Patient Care: How Do You Prepare for Taking Care of Exposed Patients?

- Equipment
  - Supply—contracts and contingency plans, stockpiling (Strategic National Stockpile)
  - Distribution plan with scarce resources
  - Special supplies (masks, point-of-care tests)
- Medications
  - Oseltamivir
  - Ciprofloxacin
- PPE
Multidisciplinary Clinical Care Plan

- Include ancillary services
  - Phlebotomy, radiology, respiratory procedures, EVS
- Minimize:
  - Exposed staff
    - Consultants, cross-trained staff
  - Transport
  - Procedures
    - Intubation, central line placement, hemodialysis, catheter insertion, deliveries, surgeries

Visitor Policy

- Are visitors allowed?
- How do you provide family-centered, safe care to infected children?
Closing Thoughts

- “An ounce of prevention is worth a pound of cure”
- Review policies regularly and test the processes frequently
- Engage community partners and other hospitals in simulations and drills
- Explore tools and templates on the CDC Web site

Additional References

- Emergency Preparedness and Response Preparation and Planning. Centers for Disease Control and Prevention. [emergency.cdc.gov/planning/](emergency.cdc.gov/planning/)
ABBREVIATIONS/ACRONYMS

Newbie’s Guide to Policy Development

CDC = Centers for Disease Control and Prevention
CoV = coronavirus
ED = emergency department
EHR = electronic health record
EVD = Ebola virus disease
EVS = environmental services
HCP = healthcare personnel
HCW = healthcare workers
HR = human resources
ID = infectious disease
MERS = Middle East respiratory syndrome
PPE = personal protective equipment