Ebola:
Lessons Learned

Satellite Conference and Live Webcast
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Faculty
Patty Miller, BS, MT (ASCP), CIC
Infection Prevention Coordinator
Baptist Medical Center South

October 17, 2014:
Sequence of Events
• On this date, phone call received with potential Ebola patient coming to BMCS from local eye clinic
• The sequence of events are as follows:
  - Multiple phone calls from various sources:
    • ADPH
    • Emergency Department
    • Safety Officer
      • (Also called by Montgomery County EMA)

  - Emergency Department called:
    • Director of Emergency Services
  - House Supervisor notified - Director of Nursing Inpatient Services
  - Infection Prevention
    • (Spoke with ADPH)
  - Safety Officer
  - Director of Nursing Services notified:
    • Nursing Administration
    • Director of Clinical Education
  - Infection Prevention Coordinator notified:
    • Infectious Disease Physician
    • Infection Prevention Practitioner
October 17, 2014: Sequence of Events
• Safety Officer notified:
  – Facilities Management

October 17, 2014: Sequence of Events
• Specified Ebola area was cleared of staff and EVD quarantine area was prepared per previous planning
• Patient was held in the ambulance until quarantine area was ready for patient
• Due to language barrier interpreter was brought in to help with translation

October 17, 2014: Sequence of Events
• EVD Quarantine Area Preparation:
  Team effort
  – Negative pressure; Supplies
  – Room preparation
  – PPE was prepared and kits checked

October 17, 2014: Sequence of Events
– Donning and doffing procedures discussed and practiced
– Site Manager was assigned to be the buddy

October 17, 2014: Sequence of Events
• Patient Transport:
  – EMS brought the patient to designated entrance to facility
  – Transported to the EVD quarantine area by EVD response team members
  – Hallways were not sealed
  • Staff, physicians and visitors were encountered in the hallway

October 17, 2014: Sequence of Events
• Patient Evaluation:
  – Evaluation was completed by Infection Disease and was recorded on the ADPH form
  – Patient was evaluated as negative risk for EVD per CDC screening tool
October 17, 2014: Sequence of Events

- Report to ADPH:
  - Findings of CDC evaluation tool was discussed with ADPH
  - Forms were faxed to ADPH for review and clearance of the patient from isolation

Lessons Learned

- All staff should be aware of Ebola Plan
- Ebola Virus Disease (EVD) Alert should be activated by Infection Prevention Practitioners after consultation with Infectious Disease
- Incident Command Center should be opened immediately

Lessons Learned Continued...

- Transition of Care (EMS)
  - Ensure transition of care is completed including vital signs
- Hospital Security Involvement and Assignment:

Lessons Learned Continued...

- Implement Phone Tree - EVD Alert Team:
  - IP practitioners to update and provide list to operators manning the hospital incident command center
  - Alert sent via mass communication devices

- As soon as the EVD suspect alert is triggered, hospital security needs to block of the route patient will be transferred to the quarantine area
- Determine Ebola Team volunteers
### Lessons Learned Continued...

- **Ensure EVD Quarantine Area has the following components:**
  - Negative pressure boundaries to only include patient room and neighboring room
  - Intercom to eliminate hand off of documentation
  - Window in doors to view patient

### Lessons Learned Continued...

- Camera to monitor staff in room with patient
- Hospital Green Scrubs in all sizes should be readily available and stocked
- Washable shoes in all sizes should be readily available and stocked

### Lessons Learned Continued...

- **Supplies in Patient Room:**
  - Nursing supplies (ER, Floor, Critical Care) bin
  - Respiratory therapist bin: with supplies for intubation etc if needed
  - Rectal Tubes / Bedside Commode / urinal / emesis basin / bags / all size gloves / tissue / toilet paper

### Lessons Learned Continued...

- Vitals: Disposable BP cuff, Stethoscope, Temperature, Monitor, Electrodes, Etc.
- Hand sanitizer; other patient personal hygiene items
- Environmental services: disposable mops heads etc, disinfectant, bleach wipes etc

### Lessons Learned Continued...

- Double red bags in special waste receptacle
- Bed with disposable mattress / linens / heating / cooling blanket
- Category A waste containers

### Lessons Learned Continued...

- Ebola Cart Location:
  - EVD Quarantine Unit
  - Emergency Department designated triage area:
    - Need Isopod in proximity
  - Updated PPE Supplies:
    - Gloves with extended cuff for better coverage
Lessons Learned Continued...
- Impermeable gowns with tie backs (some larger size if available)
- Impermeable hood
- Long face shield for better coverage
- Longer shoe/leg cover combo

Lessons Learned Continued...
- PAPR Hood (in some circumstances)
- Rubber gloves (environmental services)

Lessons Learned Continued...
- Identify/Train/Designate Ebola Unit Site Managers
- Have a log book with following information near PPE cart:
  - Name of HCW
  - Time in/out of patient room
  - PPE worn (check off list for each item worn)

Lessons Learned Continued...
- Validation for correct donning and doffing of PPE by site manager
  - Name of Site Manager
  - Name of Buddy
  - Documentation in detail of any breach in protocol

Lessons Learned Continued...
- Immediate notification of any breach in protocol to IP practitioners for discussion with IC director and determine plan of action based on exposure
  - HCW not to be released until assessment of exposure is made

Lessons Learned Continued...
- Copy of Ebola Plan in nursing area (IP practitioners)
- Required PPE list and Donning PPE instructions in PPE cart area
- Doffing PPE instructions in Anteroom
Lessons Learned Continued...

- Food and Nutrition: Disposable cups and trays
  - Ensure staff is well taken care of regarding drinks, snacks, meal arrangement if necessary dependent on the situation
- Patient’s personal belongings
  - Who takes possession?
  - Where do we secure them?

Lessons Learned Continued...

- Physician Services:
  - Infectious Diseases Consultation: all EVD cases
  - Hospitalist service will be utilized if patient admission needed
  - ED physician services will be utilized if notification obtained that the patient is unstable

Lessons Learned Continued...

- Critical care services will be utilized if patient intubated
- Plan for transfer of the patient to higher level care, most likely Emory after EVD lab confirmation by CDC

Lessons Learned Continued...

- Nursing Services will consist of 1 Site Manager, 1 Med-Surg Nurse, 1 Critical Care Nurse* (*mix of nurses will be determined by severity of patient)
  - Maximum 1 hour in PPE
    - Buddy will help in doffing and then will take over the patient care

Lessons Learned Continued...

- Determine number of hours each shift
- Standardized training for all unit managers, some ED nurses, critical care nurses, floor nurses
- Staff volunteers
  - Maximum hour of shifts can be modified based on the clinical condition of the patient

Lessons Learned Continued...

- PPE training:
  - Standardized training with associated competencies
  - Education, IP practitioners
  - Physician group: ED, hospitalist, critical care
  - Nurses group: Phase I - unit managers; Phase II - volunteers
Lessons Learned Continued...
- Ancillary services group: select Respiratory therapist / lab personnel (micro)
- Environmental services: select staff

Future Considerations
- ADPH Emergency Preparedness for Community
  - Dissemination of Training to HCW
    - EMS / First Responders
    - Physician Offices
    - Hospitals
    - Funding

Future Considerations
- Hospital Expenses
  - Supplies
  - Staff Pay
  - Appreciation of effort: Rewards for encouragement
- Off site dedicated Infectious Disease Unit