

Ebola: Lessons Learned

**Satellite Conference and Live Webcast
Wednesday, November 5, 2014
10:00 a.m. – 12:00 p.m. Central Time**

Produced by the Alabama Department of Public Health
Video Communications and Distance Learning Division

Faculty

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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:

October 17, 2014: Sequence of Events

- Multiple phone calls from various sources:
 - ADPH
 - Emergency Department
 - Safety Officer
 - (Also called by Montgomery County EMA)

October 17, 2014: Sequence of Events

- Emergency Department called:
 - Director of Emergency Services
 - House Supervisor notified - Director of Nursing Inpatient Services
 - Infection Prevention
 - (Spoke with ADPH)
 - Safety Officer

October 17, 2014: Sequence of Events

- 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

October 17, 2014: Sequence of Events

- **Clearance from ADPH**
- **Clearance from Baptist Administration**

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

- **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

Lessons Learned Continued...

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

Lessons Learned Continued...

- 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