Ebola Conference Call for Healthcare Providers

Wednesday, December 3, 2014
10:00 a.m. - 11:00 a.m. Central

Call in Number: 866-644-4188
Passcode: 41002632.

• Agenda
• Welcome - Overview; Doneen Hollingsworth, SD DOH
• Situation Update; Dr. Lon Kightlinger, SD DOH
• Identify - Isolate - Inform - "Hold"; Colleen Winter, SD DOH
• Personal Protective Equipment; Angela Jackley, SD DOH
• EMS Transport; Bill Chalcraft, SD DOH
• Designated receiving / treatment facility; Dr. Wierda-Suttle, Sanford Health System
• Laboratory Update; Joan Adam, SD DOH
• Question & Answer
Ebola virus disease

Filoviridae: enveloped RNA viruses

- **Transmission**: direct contact with blood and body fluids of a person who is sick with Ebola.
- **Acute onset**: typically 8–10 days after exposure (range 2–21 days).
- **Signs and symptoms**
  - Initial: Fever, chills, myalgias, malaise, anorexia.
  - After 5 days: GI symptoms, nausea, vomiting, watery diarrhea, abdominal pain.
  - Nonspecific early symptoms progress to hypovolemic shock and multi-organ failure, hemorrhagic disease (hemorrhagic symptoms in 18% of cases).
- Non-fatal cases typically improve 6–11 days after symptoms onset.
- Fatal disease associated with more severe early symptoms:
  - Fatality rates of 70% have been reported in rural Africa.
  - Intensive care, especially early intravenous and electrolyte management, may increase the survival rate.
What you really need to know about EBOLA
Countries with active Ebola transmission:
Guinea, Liberia, Sierra Leone and Mali.

• Other countries with associated cases with this epidemic.
  – **Senegal**: 1 case (now Ebola free).
  – **Nigeria**: 20 cases/8 deaths (now Ebola free).
  – **Spain**: 1 case (healthcare worker).
  – **United States**: 4 case onsets: 2 West African exposures (1 death) and 2 homeland transmissions.
Ebola exposure risk determines public health actions: summary table

<table>
<thead>
<tr>
<th>Risk level</th>
<th>Monitoring</th>
<th>Controlled Movement/Exclusion</th>
<th>Travel restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>21 day, direct active monitoring</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>SOME</td>
<td>21 day, direct active monitoring</td>
<td>Case-by-case assessment</td>
<td>Case-by-case assessment</td>
</tr>
<tr>
<td>LOW</td>
<td>21 day, active monitoring</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>NONE</td>
<td>None</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

- Referrals to SD Dept of Health by CDC from airport screenings, other state HD or internal.
- SD-DOH investigates, interviews, educates and monitors all contacts and cases.
- Determine risk category.
- Active-direct or active monitoring period: 21 days following the last exposure, twice daily, morning and evening, for temperature and symptoms. Face-to-face meetings every third day.
- SD-DOH provides thermometers, printed educational materials, iPhone, temperature log sheets, intervention order and referral information.
- Monitoring by iPhone FaceTime, phone, text, email, office visit or home visit.
- During the 21 day incubation period low risk person not quarantined. Determined on case-by-case situation.
- Travel monitored.
- If travel to another state: interstate notification will be done.

**ALERT:** Temperature 100.4°F or 38°C or higher. Fever, diarrhea, vomiting, stomach pain, bleeding eyes, bleeding nose, headache, muscle pain.

Ebola risk monitoring, South Dakota 2014

South Dakota Travelers (as of 3 December 2014)

- Traveler #1: low risk, cooperative, healthy, finished 8 November.
- Traveler #2: low risk, cooperative, healthy, finished 10 November.
- Traveler #3: low risk, cooperative, healthy, finished 28 November.
IDENTIFY
ISOLATE
INFORM
“HOLD”

IDENTIFY

ASK: EVERYONE, EVERY TIME

ASK: About travel history to a country with widespread illness (Sierra Leone, Guinea, Liberia, Mali) OR contact with a person with confirmed Ebola Virus disease in the past 21 days

ASK: About symptoms
- Fever >100.4 F or 38.0 C
- Ebola-compatible symptoms
  - Headache
  - Weakness
  - Muscle pain
  - Diarrhea
  - Vomiting
  - Abdominal (stomach pain)
  - Unexplained hemorrhage (Bleeding or bruising)

Who should ask: MDs, nurses, triage staff, first responders, front office staff, local public health

IDENTIFY, ISOLATE, INFORM, “HOLD”

Ambulatory Care Evaluation for Possible Ebola

1. Identify travel and direct exposure history
2. Identify signs and symptoms
3. Isolate immediately
4. Inform DOH and prepare for transport

DO NOT TRANSFER WITHOUT FIRST NOTIFYING THE DEPARTMENT OF HEALTH

Minimum PPE before patient contact
1. Face Shield & surgical face mask
2. Impermeable gown
3. Two pairs of gloves

IDENTIFY, ISOLATE, INFORM, “HOLD”

Emergency Department Evaluation for Possible Ebola
1. Identify travel and direct exposure history
2. Identify signs and symptoms
3. Isolate immediately
4. Inform DOH & hospital leadership per facility policy

DO NOT TRANSFER WITHOUT FIRST NOTIFYING THE DEPARTMENT OF HEALTH

Minimum PPE before patient contact
1. Face Shield & surgical face mask
2. Impermeable gown
3. Two pairs of gloves

If patient condition changes, reevaluate PPE

✓ Symptoms – Yes
✓ Travel history – Yes

• Isolate in a separate room with a private bathroom or commode & door to hallway closed.
• Only essential personnel with designated roles should evaluate patient.
• PPE
INFORM

IMMEDIATELY CALL local infection control or health facility leadership per protocol.

IMMEDIATELY CALL the South Dakota Department of Health 24/7 on call line:
1-800-592-1861
or
605-280-4810
Or
State Duty Officer
605-773-3231

• Facilities should plan to isolate and provide basic care for a patient for 4-6 hours.
• The Department of Health will:
  ✓ Notify receiving facility (Sanford Medical Center)
  ✓ Arrange for transport to Sanford Medical Center
• Reminder: If the medical situation warrants emergency transport, utilize your normal EMS but be sure to inform them this is a suspect Ebola virus disease patient so they may take necessary PPE precautions.
Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing)

*Issued 20 October 2014*

Angela Jackley, RN  
Healthcare Associated Infections Coordinator  
SD Department of Health  
29 October 2014

http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html
Key Principles

1. Rigorous and Repeated training
2. PPE To Prevent Skin Exposure
3. Trained monitor
Rigorous and Repeated training

- Receive repeated trainings
- Train healthcare workers on all PPE recommended by the facility’s protocols.
- Healthcare providers practice numerous times
- Ensure appropriate use of equipment
- Use a checklist
- Step by step donning and doffing
- Demonstrate competency in performing all Ebola-related infection control practices and procedures while wearing PPE
- Document training of observers and healthcare workers for proficiency and competency in donning and doffing PPE and necessary care-related duties while wearing the PPE
PPE To Prevent Skin Exposure

• No skin exposure when PPE is worn
  – Addition of coveralls and single-use disposable hoods
  – PPE recommended for U.S. healthcare workers
  – Double gloves – outer glove with extended cuff
  – Waterproof Boot covers that go to at least mid-calf or leg covers
  – Single-use fluid resistant or impermeable gown that extends to at least mid-calf or coverall without integrated hood
PPE To Prevent Skin Exposure

- Respirators, including either N95 respirators or powered air purifying respirator (PAPR)
- Surgical hoods to ensure complete coverage of head and neck
- Single-use, full-face shield that is disposable
- Apron that is waterproof and covers the torso to the level of the mid-calf (and that covers the top of the boots or boot covers) should be used if Ebola patients have vomiting or diarrhea
Trained monitor

Ensure each healthcare worker follows step by step processes outlined in the Guidance on Personal Protective Equipment to be Used by Healthcare Workers during Management of Ebola Virus Disease in U.S. Hospitals.

– Ensure a trained observer is available during both donning and doffing procedures
– Read aloud each step of procedure checklist
  Visually confirm and document
– The observer is available during donning and doffing to ensure the protocol is followed as well as to assess for visible contamination, cuts or tears.
Selection of PPE for Healthcare Workers during Management of Ebola Patients

– Recommended PPE options
  • Powered Air Purifying Respirator (PAPR)
  • N95
– Standardizing attire under PPE
– Designated areas for putting on and taking off PPE
– Trained observer available and ready
– Step by step PPE removal instructions
– Disinfection of gloved hands
Emergency Department

- Limit to essential workers
- For clinically stable patients use:
  - Face shield & surgical face mask
  - Impermeable gown
  - 2 pairs of gloves
- Unstable patients (exhibiting obvious bleeding, vomiting, copious amounts of diarrhea)
  - Refer to the PPE designated for the care of hospitalized patients as outlined in the guidance referenced at the end
Designating areas with signage for Donning and Doffing

- Designate clean vs potentially contaminated areas
- Remind healthcare workers to wait for trained observer before donning and doffing
- Reinforce need to slow and deliberate removal of PPE to prevent self-contamination
- Remind healthcare workers to perform disinfection of gloved hands in between steps of the doffing procedure
PPE Storage and Donning Area

- Outside Ebola patient room
- Do not store potentially contaminated equipment, used PPE, or waste removed from the patient’s room
- Donning activities must be directly observed by a trained observer
PPE Removal Area

- Close proximity to patient room
- Separate from clean area
- Chairs for doffing
- Leak proof infectious waste containers
- Stock supplies
  - Gloves
  - EPA registered disinfectant wipe
  - Alcohol based hand rub
Dr. Allison Wierda-Suttle, Sanford Hospital, Sioux Falls, South Dakota
Considerations for Hospitals Designated to Receive Suspected or Confirmed Ebola Patients

A. Pre-Hospital Transport Plans, Emergency Medical Services, Emergency Department Preparedness.

B. Staffing of Ebola Patient Care Team.

C. Patient Transport from Point of Entry to Designated Ebola Treatment Area.

D. Patient Placement.

E. Personal Protective Equipment and Procedures for Donning and Doffing.

F. Monitoring Healthcare Personnel and Managing Exposures.

G. Laboratory Safety.

H. Environmental Infection Control and Equipment Reprocessing.

I. Management of Waste.

J. Communications.