The All-Hazards Approach to & Use of HICS in Managing Highly Infectious Disease Patients

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Agenda

1. All-Hazards Emergency Management
2. The 3 Cs
3. Hospital Incident Command System (HICS)
   1. Command & General Staff
4. The Ebola Preparedness & Response Paradox
5. Readiness Strategies
   1. Leadership
   2. Training, Education & Exercises
   3. Community Outreach
6. Lessons Learned
7. NETEC Resources
Objectives

• Describe the “all-hazards” approach to managing the care of highly infectious disease (HID) patients

• Describe the use of the Hospital Incident Command System (HICS) in the care of HID patients

• Describe the key elements of sustaining readiness to care for HID patients

• Describe the next steps in building national resilience for safely and effectively managing an influx of HID patients
All-Hazards Emergency Management

• Natural
  – Weather
• Technological
  – Power Outage
• Intentional
  – Terrorism

• Mitigation
• Preparedness
• Response
• Recovery
The 3 Cs

• Communication
• Coordination
• Collaboration
1st C: Communication

Possible Transport of Ebola Patient to
The Nebraska Biocontainment Patient Care Unit
Located Inside The Nebraska Medical Center

Biocontainment Leaders to Discuss Latest Developments

Omaha, Neb – Please join us as infectious disease specialists and officials from our Biocontainment Unit discuss the possibility of an American patient with the Ebola virus being brought to The Nebraska Medical Center for treatment.

WHAT: News conference regarding possible treatment of patient with Ebola virus

WHEN: Thursday, September 4, 4:15 p.m.

WHERE: Truhlsen Eye Institute, 3902 Leavenworth St., Omaha, NE, park on east side of 40th St. on hill leading to area where road is closed. Enter front of Truhlsen, take elevator to 3rd floor room 3001 Bruce Truhlsen Auditorium

OTHER: If you plan to attend please contact Taylor Wilson at twilson@nebraskamed.com or (402) 871-8338

UPDATE:
Ebola Patient Scheduled To Arrive Early Monday Morning – Landing At Omaha’s Eppley Airfield

Omaha, Neb - The second Ebola patient to be treated at The Nebraska Medical Center will arrive in Omaha Monday morning at 8:30 a.m. The patient will arrive at Omaha’s Eppley Airfield and will be immediately transported to an ambulance in a remote area of the airport and not within the terminal or public areas. The patient will then be taken to The Nebraska Medical Center, which is about a 15-minute drive from Eppley.

The best area on campus to get video and photos of the ambulance arriving will again be the intersection of 42nd and Emile Streets. The ambulance will proceed up a ramp adjacent to Bennett Hall and then to an interior portion of the campus where the patient will be taken to the Biocontainment Unit.

We are planning on a press conference later in the morning, but will have more details on that tomorrow.
2nd C: Coordination
3rd C: Collaboration
Lesson Learned: The Ebola Preparedness & Response Paradox

• Low Patient Count
• High Resource Demand
• Low Resource Capacity
• High Risk Perception
• Little or no experience with EVD PUIs or confirmed cases
  – Emory, Nebraska and NYC Health + Hospitals / Bellevue have all successfully treated confirmed Ebola patients
• Incident management system
• Applicable to any hospital
• Tool to manage
  – Threats
  – Planned events
  – Emergency incidents
• Structure
  – Modular
  – Scalable
Incident Commander

Organize and direct the Hospital Command Center. Give overall strategic direction for Incident management and support activities, including emergency response and recovery

- Oversee and convene command structure
- Implement Biocontainment Unit activation checklist
- Interagency coordination during transport
- Identify Medical Specialist Role (Infectious Disease MD)
- Identify Campus Mitigation Strategies
- Collaborate with community and national agencies as needed (e.g., health dept.; CDC; etc.)
- Determine Planning Cycle and define routine briefing times
- Collaborate with research leaders to access experimental drugs if needed
Public Information Officer (PIO)

Conduit for information to internal and external stakeholders, including media as approved by Incident Command.

- Risk communication strategies
- Determine internal and external messages
- Collaborate with medical staff and family on messaging
- Establish information lines/hotlines
- Monitor and manage social media
- Who, what, where, when, how, why?
Operations

*Develop and implement strategy and tactics to carry out objectives established by Incident Command. Organize, assign, and supervise Medical Care, Security, HazMat, and Business Continuity.*

- Surge capacity plan
- Just in Time Personal Protective Equipment (PPE) training
- Staffing backfill plan
- Special project team(s)
  - Protocol updates
  - New issue process/procedure development
- Morgue Plan
- Laboratory Plan
- Behavioral Health Plan
Planning

Oversee all incident-related data gathering and analysis regarding incident operations and resources; develop alternatives for tactical operations, conduct planning meetings, and prepare Incident Action Plan for each operational period.

- Define Incident Action Plan Objectives
- IT screening tool development for entry areas of health system
- Define plans for evacuation, severe weather, etc. if needed while activated
- Medical record audits
- Employee Health/Occup. Health Support for Temperature Monitoring during activation
- HR issues requiring resolution during activation
- Care of the family-nurse concierge
Logistics

Responsible to organize and direct operations associated with maintenance of physical environment, materiel and service support activities.

- Waste Management Plan
- Facilities Plan (negative pressure, HVAC, etc.)
- Security Plan (transport, unit security)
- Biomed Plan (autoclave and other equipment)
- PPE management (# sets on hand, back orders, etc.)
- Linen Plan (scrubs, linens)
- Food Plan (patient and staff)
- Supply & Medication lists and availability
Finance

*Finance Section Chief is to monitor utilization of assets and accounting for expenditures.*

*Supervise documentation of expense and cost reimbursement.*

- Cost center development
- Expense tracking
- Charge code development
- Funds flow, fast track purchases as needed for equipment
Readiness Strategies

• Use of Just-in-Time Checklists
  • Job Action Sheets

• Physician & Nursing Backfill Plan
  • Depth
  • Recruit & orient staff in other specialties (e.g., nephrology)
  • Address backfill issues in advance
  • RVUs & compensation issues
Readiness Strategies
Leadership

• Lead by Example
  • Shared governance
  • Relationship-based care
• Communication
  • Daily team briefing
  • Daily huddle communication (verbal & email)
• Standard Operating Procedures (SOPs)
  • Staff ownership
• Plan, practice, learn and adapt for your unique situation
No Hierarchy... & Lots of Tools
Waste Stream

- It's not all solid waste
- It does not always require a high tech solution
# Waste Stream

- **It’s not always planned**

## Nebraska Medicine

**Policies and Procedures Manual**

**Section:** Body Fluid Spill Cleanup in the NBU

**Subject:**

**Number:** 1.011

**Attachments:**

Date Effective: August 2014

Date Revised: June 2015; July 2015; October 2015

### Nebraska Biocontainment Unit (NBU)

#### Body Fluid Spill Cleanup

**Materials needed:**
- Appropriate Personal Protective Equipment (PPE)
- Absorbent Pads
- Absorbent Pad with fluid resistant backing
- 1:10 Solution Bleach
- *Broom with removable handle*
- *Bleach Wipes*
- *Bleach Head*
- *Bleach Wrench*
- Mop Bucket (that is designated to the area where the spill occurs)
- Mop Pole (that is designated to the area where the spill occurs)
- Clean mop head
- *Bleach Wipes*
- mop with removable handle
- *Long handled dust pan with removable handle*

**Definition:**

Body fluid shall refer to all fluids that originate from a human body. This includes blood, urine, feces, vomit and others.

**Purpose:**

To define a process for cleanup, decontamination and disposal of body fluid spills.

**Policy:**

Body fluid spills in the NBU shall be cleaned by NBU personnel.

Immediately following a spill the staff shall assess the need to call for assistance with the cleanup.

All body fluid spills shall be promptly cleaned and surfaces that come in contact with the spill shall be disinfected with 1:10 concentration bleach.

Personal performing the cleanup shall wear appropriate PPE as determined by the NBU medical director. This may include donning a disposable plastic apron over the required PPE.

**Procedure:**

1. Immediately following the spill layer the entire body fluid spill with enough absorbent pads to allow the fluid to become fully absorbed into the material.
   - If the absorbent pad becomes saturated and body fluid pool on the surface of the pad is insufficient, place more pads on top (figure 1).

2. Once the fluid is absorbed, place an absorbent pad with a fluid resistant backing on top of the layers (the fluid resistant backing should face up).

3. Gather and bundle the pads by envelope them in the outer absorbent pad then gently place it in an autoclave bag lined trash can.
   - If there is evidence that the body fluid is still present, place additional absorbent pads on it and repeat the procedure.

4. Remove outer gloves and perform hand hygiene using bleach wipes before donning a clean pair of outer gloves.

5. Gently gather the neck of the autoclave bag and secure it with autoclave tape.

6. Follow NBU Policy 1.197 Waste Processing to remove the bagged items from the patient care area.

7. Using 1:10 bleach solution mop the area where the spill occurred:
   - After the area has been mopped the mop head shall be removed from the mop pole.
   - Follow NBU Policy 1.166 Hanging Protocol to remove the mop head from the patient care area.

**NOTE:** if the body fluid spill is small it is appropriate to use bleach wipes in place of #7.
Training, Education,& Exercises

Multiple Scenarios and Partners

Radiology Department

“Practice makes PERMANENT, not perfect.”
Dale Carnegie, 1888-1955

Operating Room Staff – Care of a PUI

Local Responders and the United States Air Force

Provider Down Policy
Community Outreach

- OMMRS Training
- Tours
- Presentations at local and national conferences
- Schools – pre-school – college
- Business leaders
- Churches
Lessons Learned

- Incident Command structure is important
- Bricks and mortar may need adjustments
- Daily briefings assured everyone on same page and provided touch point with all team members
- Problem solving was constant
- Leadership matters
- Interprofessional teamwork is essential
- No cost structures exist
- Business continuity planning is important…”what if”, “what if”,…
HSEEP Exercise Types

• Discussion-based
  – Seminars
  – Workshops
  – Tabletop exercises
  – Games

• Operations-based
  – Drills
  – Functional exercises
  – Full-scale exercises
NETEC Exercise Resources

- 4 end-users; 2 exercise types
  - Discussion-based
  - Operations-based