Ebola Assessment Hospitals and ICAR Centers of Excellence

November 2016

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Objectives

• Update of Oregon Ebola Assessment Hospital (EAH) designation
• Review of Oregon HAI Program’s work with EAHs
• Discuss HAI Program’s strategy to “step down” but continue Oregon’s infection prevention infrastructure and preparedness
• Discuss HAI Program’s new collaboration with Oregon NICU’s to decrease antibiotic use
# Hospital Assessment Summary

**Who this is for:** State or local health department Ebola readiness assessment teams, ELC grantees, or other health department staff who are responsible for reporting about Ebola Assessment Hospital capability to CDC.

**What this is:** Table used to summarize a hospital’s overall Ebola readiness across 11 capability domains following an on-site assessment.

**Instructions:** Ebola Assessment Hospitals are hospitals that have minimum capability in place to receive, isolate, and treat a patient under investigation (PUI) for Ebola virus disease (EVD). Mark “Y” for any capability element that is present (i.e., minimum capability is met) in a domain. If all elements in a domain are present, mark “Y” in the Minimum Capability in Place column. Minimum capability can be considered adequate if all elements in a domain are sufficiently met. “N” responses indicate gaps that require mitigation before designation as an Ebola Assessment Hospital. If any element in a domain is marked “N,” mark “N” in the Minimum Capability in Place column. Familiarity with CDC guidance documents for U.S. Healthcare Workers and Settings will be necessary.

<table>
<thead>
<tr>
<th>Facility Name:</th>
<th>State:</th>
<th>Zip code:</th>
<th>NIDN OrgID:</th>
<th>Date of assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role: EAH ETC</td>
<td>Adult capability: Y N</td>
<td>Pediatric capability: Y N</td>
<td></td>
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</tr>
</tbody>
</table>

## Ebola Assessment Hospital Capability Domain

### Elements Required for Minimum Capability

<table>
<thead>
<tr>
<th>Hospital:</th>
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<tbody>
<tr>
<td>Private room with in-room dedicated bathroom with covered toilet or covered bedside commode: Y N</td>
</tr>
<tr>
<td>Dedicated patient care equipment: Y N</td>
</tr>
<tr>
<td>Separate areas/rooms immediately adjacent to patient room for</td>
</tr>
<tr>
<td>- Donning PPE: Y N</td>
</tr>
<tr>
<td>- Doffing PPE: Y N</td>
</tr>
<tr>
<td>- Sufficient space available to allow a trained observer to safely and effectively supervise donning and doffing of PPE: Y N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Capability in Place? (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
</tr>
</tbody>
</table>

## Facility Infrastructure: Patient room(s)
Ebola Assessment Hospitals
Updated 11/2016

• Asante Ashland Community Hospital
• Legacy Good Samaritan Hospital
• Samaritan Lebanon Community Hospital
Reminder: No More PUMs!

• No entry screening for returning travelers
• Continued triage screening will be crucial for rapid identification → isolation → notification
  • Acute illness+ recent international travel
• Ebola Assessment Hospital Designation continues
  • How do we continue collaboration & improvement?
What is an ICAR Center of Excellence?

• Initial collaboration with self-identified Ebola Assessment Hospitals
• Continued active engagement with OHA to strengthen infection prevention
  • Each hospital’s work & priorities will vary
  • Periodic updates
  • Continued collaboration via telephone, email, webinar, etc.

“Repurposing” CDC’s Assessment Hospital Document

• These are not center “expectations”
• Summarizes a hospital’s overall readiness for preventing the transmission of highly contagious pathogens, and commitment to strengthening Oregon’s infection prevention infrastructure
Facility Infrastructure

• Review of Hand Hygiene product placement
• Review of PPE placement throughout hospitals
• AllR capacity
  • Within each hospital, and across entire hospital system
  • Ensure safety checks are in place

Patient Transportation

• Inter-Facility
  • Continued partnerships with EMS partners (mostly through Ebola work):
    • Transport plans
    • Annual training of EMS partners (PPE, safe transport)
  • Notification of MDROs and isolation recommendations prior to accepting or transfer to another facility
Laboratory

• Maintaining POC or central lab area for necessary diagnostics (based on differential diagnosis)
• Continued collaboration to improve lab personnel competencies and education
• Designated primary lab partner with OSPHL to serve as clinical liaison

Staffing

• Detailed, scalable staffing plans to support 96 hours of care
Worker Safety

• Compliance with OSHA Respiratory Protection Program and Bloodborne Pathogen and Needlestick Prevention
• Plans for employee exposures (TB, measles, varicella, blood and body fluids)
• Immunization promotion, monitor rates immunized (flu, MMR, VZV, Tdap)
• Ill provider policy

Clinical planning

• Hospital has patient (and visitor) post-exposure management and prophylaxis plans in place
  • Influenza, measles, varicella, pertussis, blood or body fluids
Antibiotic stewardship collaboration

Antimicrobial stewardship

• Antimicrobial stewardship = microbiome stewardship
• Disruption of GI microbiome is multi-factorial
  • Also: acid-reducing agents, TPN, vasoactive agents
• ”Commensal lifestyle” can shift to a “Pathogenic lifestyle” during physiologic stress, above exposures, and critical illness
• An understanding of the microbiome is critical in order to determine new methods for HAI and MDRO prevention
ICU stay leads to dramatic microbiome disruption

The taxonomic composition of the gut microbiome at the phylum level determined by 16S rRNA:

(A) Healthy volunteers
(B) ICU patients dying with signs of severe sepsis
(C) ICU patients who had recovered
Antibiotic exposure and NEC

![Graph showing the risk of NEC over days on antibiotics](image)


Antibiotic restriction decreases MDRO

- Ciprofloxacin restriction decreases MDR-P aeruginosa
- 3rd generation cephalosporin restriction in NICU reduces MDR-Enterobacter sp.
- Cephalosporin restriction decreases MDR-Klebsiella infection and colonization by 44% (71% reduction in MICUs, 88% in SICU)
  - Concomitant 69% increase in imipenem-resistant Pseudomonas sp.

Approved: New Antimicrobial Stewardship Standard

The Joint Commission recently announced a new Medication Management (MM) standard for hospitals, critical access hospitals, and nursing care centers. Standard MM.03.01.01 addresses antimicrobial stewardship and becomes effective January 1, 2017.

Current scientific literature emphasizes the need to reduce the use of inappropriate antimicrobials in all health care settings due to antimicrobial resistance. According to the World Health Organization (WHO), "Antimicrobial resistance threatens the effective prevention and treatment of an ever-increasing range of infections caused by bacteria, parasites, viruses and fungi." The Centers for Disease Control and Prevention (CDC) identified that 20%-50% all antibiotics prescribed in US acute care hospitals are either unnecessary or inappropriate. The CDC has also stated: "Antibiotics are among the most commonly prescribed medications in nursing homes. Up to 70% of long-term care facilities’ residents receive an antibiotic every year.'"
Vermont Oxford Network’s 2016 (and 2017) QI Collaborative

- Partnership with CDC’s DHQP
  - Faculty: Arjun Srinivasan, MD & Daniel Pollack, MD
- 169 participating teams (NICUs + MBUs)
- 39 states, 7 countries and Puerto Rico
- Five statewide collaboratives
  - Colorado, Oregon, Tennessee, Washington, Wisconsin
NW Improvement Priority: Antibiotic Stewardship (NW IPAs)

- Y-axis – AUR
- Y-axis – total patient days for NW IPAs
- X-axis – month/year
- Thick dark blue line – average AUR for 7 of 11 participating centers in NW IPAs
- Individual lines – NW IPAs individual centers monthly AUR
Conclusions

• Ebola Assessment Hospital self-designations continue

• ICAR Centers of Excellence collaboration will continue to strengthen Oregon’s infection prevention preparedness

• 9 Oregon (+2 SW WA) NICUs have demonstrated dedication to antibiotic stewardship as a region
  • CDC’s DHQP and OHA’s HAI program committed to supporting VON collaborative through 2017
Thank you!