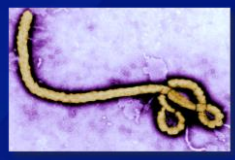
Ebola Readiness Assessment Webinar



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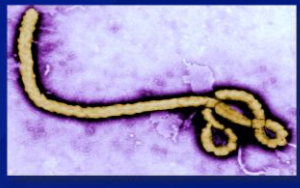
Purpose of Webinar

- Introduction
- PHEP Supplemental Funding and Requirements
- Medical Care of Persons Under Investigation (PUIs)
- ELC Domestic Ebola Supplement
- Ebola Readiness Assessment Strategy
- HPP Requirements for Ebola Assessment Hospitals
- Healthcare Systems Tools and Guidance

Ebola Readiness Assessment Webinar: Public Health Emergency Preparedness (PHEP) Requirements



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Director, Division of State and Local Readiness

May 11, 2015

Office of Public Health Preparedness and Response
Division of State and Local Readiness

Overview

- **PHEP Ebola Supplemental Funding: $145 million**
  - Project Period: April 1, 2015 – September 30, 2016
- **Funding Intent**
  - Coordinate jurisdictional Ebola planning and response in partnership with healthcare systems
  - Bolster existing partnerships with healthcare, emergency management, epidemiology, and laboratory colleagues
  - Support accelerated Ebola public health preparedness planning within state, local, territorial, and tribal public health systems

PHEP Supplemental Funding Target Areas

- Community Preparedness
- Public Health Surveillance and Epidemiological Investigation
- Public Health Laboratory Testing
- Non-Pharmaceutical Interventions
- Responder (Worker) Safety and Health
- Emergency Public Information and Warning/Information Sharing
- Medical Surge

PHEP Requirements for Assessment Hospital Readiness

- **Laboratory Coordination**
  - Specimen transport from hospital to state-designated lab for processing
  - Testing for Ebola and other likely pathogens
  - Disposal of specimens
  - Lab biosafety and training
- **Preparedness Coordination**
  - Emergency medical services
  - Personal protective equipment stockpiles
  - Waste hauling
  - Mortuary/crematory services
  - Communications
  - Overall operational planning and exercising

Medical Care of Persons Under Investigation (PUIs)

Maleeka Glover, ScD, MPH, CHES
Medial Investigations Team
May 11, 2015

Office of Public Health Preparedness and Response

Layered Approach to Defense against Ebola

West Africa

All travelers leaving countries with widespread Ebola transmission are screened before getting on their flight.

Symptomatic or exposed travelers are not permitted to travel.

En Route

All aircraft arriving in the United States are required to report deaths onboard and travelers with certain signs/symptoms of illness to CDC.

United States

Travelers coming from countries with widespread Ebola transmission fly into one of five US airports (New York JFK, Newark, Washington-Dulles, Chicago O'Hare, and Atlanta).

Travelers are screened for symptoms and potential exposures and referred for post-arrival monitoring.

Domestic Clinical Inquiries Team

- Provide clinical guidance and decision support for the evaluation of travelers who may be persons under investigation (PUIs)
- Provide SME support on risk classification
- Document inquiries and PUI management
- Communicate with HHS, other Federal partners, state and local health departments

U.S. Entry Screening Data: October 11, 2014 - May 5, 2015

Country	No. Screened	No. Tertiary Screenings (%)*	No. Medical Evaluations (%)
Liberia	7870	990 (12.58%)	12 (0.15%)
Guinea	3280	142 (4.33%)	5 (0.15%)
Sierra Leone	3831	583 (15.22%)	11 (0.29%)

*triggered by fever or other symptoms

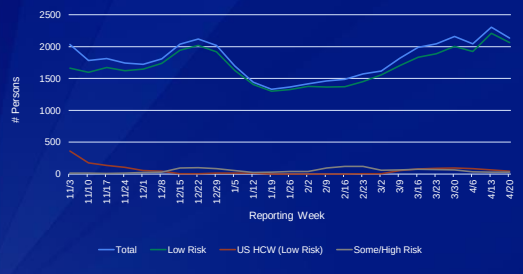
Travelers monitored in the U.S.

- Nearly 14,000 persons screened as "low but not zero" are under active monitoring (AM)
- Over 350 persons screened as "some- or high-risk" are under direct active monitoring (DAM)

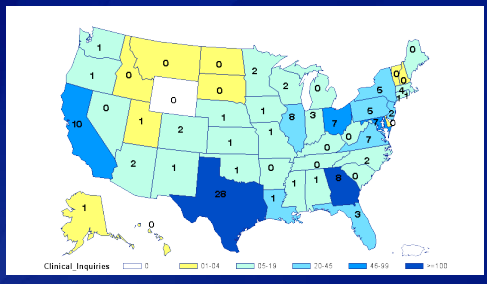
Travelers monitored by risk level and country*	Guinea	Liberia	Sierra Leone
Low	3267	7609	3620
Some/High	11	257	210
None	2	4	0

*Travelers can be counted more than once if they went to more than one of the 3 countries. Also states can change risk level/AM/DAM level, and that is not accounted for here.

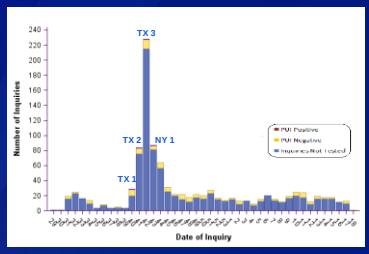
Travelers monitored in the U.S. November 3, 2014 – April 26, 2015



Domestic Clinical Inquiries (n=1060) and Number of People Tested (n=126), by State
July 9, 2014 – May 5, 2015



Domestic Clinical Inquiries by Epi Week
Testing through May 5, 2015



Number of Persons Traveling/Monitored, and Reported to CDC/DCI
Since Airport Screening Initiated, United States, 2014-15

All travelers from affected countries (n=15,000) → Travelers with symptoms (n=1,067) → PUIs (n=325) → Tested PUIs (n=129) → Confirmed (n=1)

Country of Travel Among PUIs Reported to CDC/DCI*
July 7, 2014 – May 5, 2015

Country	N=325	%
1 Liberia	114	35
2 Sierra Leone	99	30
3 Guinea	49	15
4 Other/Unknown	65	20

Top Five Diagnoses Among PUIs Reported to CDC/DCI
July 7, 2014 – May 5, 2015

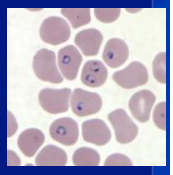
Diagnosis	N=325	%
1 URI	38	16
2 Malaria	23	10
3 Gastroenteritis	23	10
4 Influenza	14	6
5 Unknown/other	143	59

PUI Assessment/Treatment Delays

- **State-designated assessment hospitals:**
  - Tasked with timely assessment/treatment of PUIs
  - Of the last 25 PUIs that underwent Ebola testing 40% experienced delays in diagnosis or treatment (median 8 hrs.; Range of 4hrs to 4 days)
- **Common causes of delayed assessment:**
  - Clinicians and Lab directors requiring EVD "rule out" by state LRN prior to any work up
  - Lack of the ability to do adequate basic work ups for conditions common in PUIs such as malaria
- **Misconceptions about risk**
  - Risk based on travel history and exposure versus symptom progression

Case Study #1

- 4 y/o arrived from Liberia; Low but not zero risk
- Developed fever 101.7°F on day 15, no other symptoms, family well
- Day 16, Fever of 102°F and one loose stool in hospital
- Rapid test: P. falciparum + and P. vivax +
- Hospital A uncomfortable treating child PUI despite alternative diagnosis of malaria
- Transferred by EMTs in full PPE to Hosp B on day 17
- Slow clinical improvement, delay in malaria treatment
- Ebola testing negative >72 hours after development of symptoms



Case Study #2

- A 26 y/o male arrived from Liberia; Low but not zero
- Fever, malaise prior to departing Liberia; asymptomatic on entry
- On Day 1 he reported fever to 102.3°F
- Health department staff made a home visit and found the traveler to have a temperature of 104°F, heart rate 128, with malaise and dark urine
- Transported by EMS to a hospital and admitted into isolation. An EVD test was sent, with further work up deferred until return of EVD test result
- While awaiting results, traveler became hypotensive requiring 6 L of fluid and admission into ICU
- On return of EVD negative PCR (4 hours post admission), thick/thin smear identified P. falciparum (3% parasitemia)

Case Study #3

- A 44 y/o female who had visited Liberia presented at an emergency department complaining of anorexia and fever. On examination she was tachycardic and had a temperature of 101°F. She was admitted into an isolation room
- Lab required Ebola rule out
- A CBC was not done for 24 hours. The traveler's hemoglobin was 5, requiring transfusion; and she was moved to the ICU
- Malaria treatment was delayed for more than 36 hours.
- State Lab did malaria smear; positive for P falciparum.
- 4 day delay in obtaining a proper diagnosis; associated with need for blood transfusions and ICU stay

Guidances

- **Home Monitoring – Minor updates**
  - May be appropriate to determine if symptoms progress or while awaiting diagnostic test results to determine the cause of symptoms
- **Home Isolation – In clearance**
  - Persons clinically well enough to be managed in residential settings; don't need to occupy EMS and hospital staff time, hospital space, and consumption of personal protective equipment
- **PUI Assessment - In draft**
  - Assessment and management of people who are low (but not zero) or some risk; PUIs should be evaluated for possibility of other illnesses (acute febrile illness, acute URI/LRI illnesses or GI illnesses)

ELC Domestic Ebola Supplement

Alvin Shultz
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National Center for Emerging and Zoonotic Infectious Diseases
Division of Pathogens and Emerging Infections

ELC Domestic Ebola Supplement Projects

- **A – Healthcare Infection Control Assessment and Response**
  - Infection Control Assessment Program
  - Targeted Healthcare Infection Prevention Programs
- **B – Enhanced Laboratory Biosafety Capacity**
- **C – Global Migration, Border Interventions and Migrant Health**

Project A: Healthcare Infection Control Assessment and Response (ICAR)

	Activity A	Activity B
Eligibility:	All 64 ELC Grantees	All 64 ELC Grantees
Approx Total $ Available:	25 million	50 million
Approx # of Awards:	58	25
Approx Avg $ per Award:	$470,000	$1,750,000
Duration of Activity	Up to 2 years	Up to 3 years

Review: Laboratory Biosafety Capacity

- **Purpose: Support PHLs and their clinical partners to assess, develop and implement measures to improve laboratory and biological safety practices for dealing with current and emerging infectious diseases**
- **Focus on laboratory Biosafety**
- **Funding for a dedicated laboratory biosafety officer and associated costs; some resources for gaps identified in assessments**
- **Association of Public Health Laboratories (APHL) will act as key SME post award**

Review: Laboratory Biosafety Capacity

- **Activities (all apply to Ebola and other EIDs)**
  - Review and update jurisdiction's biosafety guidelines
  - Perform PHL risk assessments to assure lab can safely handle and dispose of specimens
  - Develop, provide or assure access to tools, guidance, trainings and other educational activities for sentinel clinical labs and facilities to maintain competent staff knowledgeable in working with infectious agents of concern
  - Implement mitigation strategies and address gaps at PHL based upon assessments
  - Work with clinical lab partners to perform their own assessments (coordinate with ICAP/ER assessments from Project A)
  - Implement mitigation strategies and address gaps at clinical labs based upon assessments. ***Ebola Assessment Laboratories Priority #1***

Timeline

- **March 30th, 2015 – Funds awarded**
- **May, 2015 – ELC Program Advisors will be making initial contact on these activities and reviewing award**
- **May 29th 2015 – Baseline reporting of biosafety performance measures due to ELC office (PMs distributed May 1st)**
- **~ July 2015 – First quarterly calls held to discuss initial progress and early identification of barriers**
- **October 1, 2015 - Six month performance measure report**
- **May, 2016 – First annual report on biosafety progress (to be submitted along with FY 2016 ELC Continuation Application)**

Biosafety Measures

- **Number and percent of sentinel clinical labs in which at least two staff members are currently certified in packaging/shipping of IATA division 6.2 Category A infectious substances**
- **Number and percent of public health laboratorians needed to package/ship IATA division 6.2 Category A infectious substances, who are currently certified to do so**
- **Number and percent of public health laboratorians needed to demonstrate competency to work in a BSL-3, who currently demonstrate competency**
- **Number and percent of sentinel clinical laboratories that have completed at least one laboratory risk assessment for an identified infectious agent**
- **Completion of biosafety risk assessment(s) and mitigation of risks for Ebola and/or other infectious agents of public health concern at the public health laboratory**
- **Public health laboratory biosafety plans are reviewed and communicated**

Biosafety Measures Q&A

Q: When is the due date to submit baseline data for the measures? Is it due with my ELC application on May 19?

A: No. Baseline data for measures are due Friday, May 29th.

Q: Measure B.1 and B.2 have the same header in the reporting template for Biosafety; is this a mistake?

A: Correct. This is a mistake on the template. Please refer to the Supplemental Guidance on Measures for the accurate name/header for Measure B.1. The corresponding data elements should be correct.

Q: Which are the ELC-PHEP joint measures?

A: Measures B.1 and B.2

Biosafety Measures Q&A

Q: Measure B1 and B4 will require surveys of sentinel laboratories. Is that the intention?

A: Yes, we do anticipate that there will be a need to collect this information from the sentinel laboratories if the public health lab does not have this information readily available. We anticipate that it can be collected during the outreach/coordination process with sentinel labs. We also anticipate that not all awardees will be able to respond to this by the May 29th due date for baseline collection. ***Please prioritize Ebola Assessment Hospitals***

Q: If my public health laboratory has multiple labs, which one should Measure B2 apply to? Only ELC funded labs?

A: The measure should apply to all public health labs where they may be biosafety concerns and opportunities to improve biosafety practices. Please be aware that this is a joint ELC-PHEP measure.

ELC Domestic Ebola Supplement: Infection Control

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Division of Healthcare Quality Promotion

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion

ELC Domestic Ebola Supplement / Project A: Healthcare Infection Control Assessment and Response (ICAR)

- **CDC / NCEZID / DHQP**
- **Goal: bolster infection control practice and competency throughout the healthcare delivery system through on-site assessments, training, and policy changes**
- Activity A (2 year funding)
  - Infection Control Assessment Program
    1. Expand State HAI Plan and Advisory Group
    2. Inventory all facilities and identify policy levers
    3. Assess readiness of designated Ebola assessment facilities
    4. Assess and improve HAI outbreak reporting and response
- Activity B (optional; 3 year funding)
  - Targeted Healthcare Infection Prevention Programs
    - Expand to other hospitals/settings, enhance ability to use HAI data to target prevention and identify emerging threats

ELC Supplement ICAR Activity A.3: Assess Readiness of Ebola-designated Facilities

- **Conduct on-site assessments of all designated Ebola assessment hospitals (or treatment centers, if any)**
- **Determine gaps in readiness**
- **Address gaps through consultation/training using CDC-based resources; develop and implement mitigation plan with hospital**
- **Follow up to confirm mitigation of gaps**

How CDC Can Help: Ebola Readiness Assessment (ERA) Activity

- **Ebola Readiness Assessment (ERA) Team can provide technical assistance to grantees/states**
  - Remote
  - On-site*
- **Field teams may consist of experts in infection control, worker safety, preparedness, and laboratory**
  - Consider parallel structure at state level
- **Use CDC's Ebola Hospital Assessment Tool as guide to determine readiness at hospital and system levels**

*Request for on-site visit should be received by CDC at least 3 weeks before anticipated visit

http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/assessment-hospitals.html

Key Points

1. Ebola assessment hospitals are prepared to receive and isolate a PUI for EVD and care for the patient until an Ebola diagnosis can be confirmed or ruled out and until discharge or transfer is completed.
2. The decision to function as an Ebola assessment hospital will be made between state and local health authorities and the hospital administration.
3. Ebola assessment hospitals should be prepared to transport patients with confirmed EVD to an Ebola treatment center. Transfer decisions should be informed by discussions among public health authorities and referring and accepting physicians on a case-by-case basis, depending on the status of the patient and the capacity of the Ebola assessment hospital.
4. All states, particularly those that are not planning to designate in-state Ebola treatment centers, should consider identifying Ebola assessment hospitals to ensure that anyone with symptoms and travel history consistent with EVD can be cared for until an Ebola diagnosis is confirmed or ruled out.
5. Ebola assessment hospitals should be able to provide up to 96 hours of evaluation and care for PUIs until the diagnosis is either confirmed or ruled out and until discharge or transfer is completed.

http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/assessment-hospitals.html

Ebola Assessment Hospital Capability	Capability Description	Minimum Capability in Place? (Y/N)[1]
Facility Infrastructure: Patient room(s)	Hospital has a private room with in-room dedicated bathroom or covered bedside commode, equipped with dedicated patient-care equipment, including separate areas immediately adjacent to patient room: one for putting on (donning) of personal protective equipment (PPE) and one for removing (doffing). These areas must be sufficient to allow a trained observer to safely and effectively supervise donning and doffing of PPE.	
Patient Transportation	Joint determination by state and local public health agency, emergency medical services, and hospital of interfacility transport plans (transfer of patients with confirmed EVD to the designated Ebola treatment hospital) including identification of transportation provider(s) (including ground and air transport) with appropriate training and PPE to safely transport a patient. Intrafacility plans for patient transport (for example, from ambulance entrance to the designated ward or unit for patients under investigation) are developed and in place. Additional information on patient transport is available.	
Laboratory	Diagnostic laboratory procedures and protocols are in place for testing of specimens for Ebola by the nearest Laboratory Response Network (LRN) laboratory capable of testing for Ebola, addressing dedicated space (if possible), possible point-of-care testing, equipment selection and disinfection, staffing, reagents, training, and specimen transport for routine clinical diagnostic testing at the facility, as well as protocols for lab personnel PPE use and training. For more information, see CDC's Interim Guidance for Specimen Collection, Transport, Testing, and Submission for People Under Investigation.	

http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/assessment-hospitals.html

Ebola Assessment Hospital Capability Domains

Facility Infrastructure	Waste Management
Patient Transportation	Worker Safety
Laboratory Safety and Testing	Environmental Services
Staffing	Clinical Management
Training	Operations Coordination
PPE	

→ External (Systems Level) Dependencies

http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/assessment-hospitals.html

State Coordination Required for Assessment Hospitals to be Ready

- **Preparedness**
  - EMS services
  - PPE stockpiles
  - Waste hauling
  - Mortuary/crematory services
  - Communications
  - Overall operations planning and exercising
- **Laboratory**
  - Specimen transport from hospital to State-designated lab for processing
  - Testing for Ebola and other likely pathogens
  - Disposal of specimens
  - Lab biosafety and training

Required Preparatory Work by State Health Department

- **Form multidisciplinary site visit team**
  - Coordination with preparedness and laboratory staff is key
- **Identify and discuss requirements and capabilities with hospitals ahead of any on-site visits**
- **Obtain pre-visit hospital self-assessment (e.g., using CDC's Ebola Assessment Tool)**
- **Discuss preparatory work with CDC ERA Team (if requested)**

CDC On-site Technical Assistance

- **ERA Team would assess readiness at up to 3 hospitals after a State health department's invitation and mentor State's site visit team in the process**
- **Example approach for a 2-hospital, on-site visit by ERA Team**
  - Day 1: ERA Team leads first hospital assessment; State Team observes/assists
  - Day 2: State Team leads second hospital assessment; ERA Team observes/assists
  - Day 3: ERA and State teams meet to review identified gaps, discuss mitigation strategies, and address any needs of State Team as it goes forward to conduct further assessments on its own

CDC On-site Technical Assistance

- **Variations in approach are possible**
  - State may not require full ERA Team, only certain expertise
  - State leads and CDC assists either on-site or remotely during visits
- **Priority for on-site TA**
  - States that had previously requested on-site TA, but were not visited
  - States that have not previously requested visits
- **CDC's ERA Team's travel expenses will be covered by CDC**

Reporting and Remote Technical Assistance

- **ELC Ebola Supplement Performance Measures Guidance (05/01/2015)**
- Line list of proposed Ebola Assessment Hospitals where an assessment will be or has been conducted
- Monthly beginning May 29, 2015 through September 30, 2015, then every three months
- For each facility, provide
  - NHSN facility organization ID, facility name, and date of assessment
  - Status on each capability from the 11 Ebola Assessment Hospital domains *
- CDC will support your efforts to mitigate identified gaps

* http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/assessment-hospitals.html

Ebola Assessment Hospitals (EAHs):

Requirements through the HPP Ebola FOA and Support from the National Ebola Training and Education Center (NETEC)

Jennifer Hannah
Acting Director
National Healthcare Preparedness Programs, ASPR

CDC/ASPR Ebola Assessment Hospital Webinar

May 11, 2015

ASPR

Ebola Assessment Hospitals: Patient Care Responsibilities

Patient care responsibilities:

- Ensure PUIs receive appropriate care for underlying illness while ruling out or confirming an Ebola diagnosis – this includes providing appropriate diagnostic and laboratory testing other than for Ebola (e.g., malaria testing, complete blood counts, and other routine diagnostic work-ups)
- Adjust EHRs to ensure prompt staff screening for travel histories and newly emerging diseases
- Better infection control coordination through linkages with CDC PHEP and ELC programs

EMTALA requirements for hospitals are the same for individuals with possible Ebola symptoms as all other possible emergency medical conditions

Ebola Assessment Hospitals: Health Care Worker Readiness

Improve and maintain health care worker readiness for Ebola

- Hospital-level training of staff focused on health care worker safety (PPE donning/doffing, rapid identification and isolation of a patient, safe treatment protocols, behavioral health support)
- Early recognition and activation of facility's Ebola plan
- Annual exercises to include unannounced first encounter drills, patient transport, and patient care simulations
- PPE purchases

Ebola Assessment Hospitals: Physical Infrastructure for Infection Control

Physical infrastructure needs:

- Reconfigure patient flow in ED to provide isolation capacity for PUIs for Ebola and other infectious patients
- Retrofit inpatient care areas for enhanced infection control
- Clinical laboratory space and equipment for Ebola
- Capability to handle Ebola-contaminated waste

Ebola Assessment Hospitals: Role in Health Care System CONOPS

Health care system concept of operations (CONOPS) for Ebola: ***awardees will develop, implement, and annually exercise the CONOPS – EAHs are part of this.***

- Patient transfers from EAHs to regional Ebola and other special pathogen treatment centers and state- or jurisdiction-Ebola treatment centers (intra- and inter-state safe ground transport plans)
- Plans for AM/DAM and notifications prior to transporting patients
- Plans to address health care system and facility gaps to improve operational readiness, including EAHs

"Right Sizing" the Number of EAHs

- **All EAHs funded through the HPP Ebola FOA must meet the requirements set forth therein regardless of the level of funding provided through the award**
- **Appropriate to "right size" the number of EAHs in the state to ensure funding levels are sufficient to meet these requirements**
- **NHPP is reviewing HPP Ebola FOA applications now. If an awardee did not right size EAHs, questions may arise about the reasonableness of the proposed budget and work plan.**

Ebola Assessment Hospitals: Support Provided through NETEC

The NETEC will:

- Develop metrics to measure facility and health care worker readiness
- Conduct peer review assessments, monitoring, and recognition reporting in coordination with the state health department
- Develop a training curriculum
- Continuously update a comprehensive set of educational materials, resources, and tools
- Provide technical support to and train staff of EAHs, in collaboration with the state.
- Facilitate planning and observation of annual exercises

NETEC will coordinate with health departments to conduct at least one joint health care and public health visit per state during the project period

Additional Resources for Ebola Assessment Hospitals

- **EMTALA requirements and implications related to Ebola:**
  - http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions-Items/Survey-and-Cert-Letter-15-10.html
- **On June 15, ASPR launches the Technical Resources Assistance Center and Information Exchange (TRACIE)**
  - Enhanced technical assistance; comprehensive one-stop, national knowledge center for health care system preparedness; multiple ways to share and receive information, including peer-to-peer; leveraging and better integrating support

Healthcare Systems Preparedness

Deborah Levy, CAPT USPHS
Chief, Healthcare Preparedness Activity

Healthcare Systems Preparedness: Additional Tools and Guidance

- **Concept of Operations (ConOps) Planning Template for the Management of Persons under Investigation and Ebola Patients**
  - Key elements include: Public Health Monitoring and Movement, Isolation/Quarantine, Hospital Tiered Strategy, Infection Control, Laboratory, Waste Management, EMS, Mortuary, etc.
  - Conceptual overview of the processes and steps envisioned in the proper functioning of a system or proper execution of an operation
  - Currently under SME review
- **Interfacility / Interstate Transport Guidance**
  - To provide planning guidance to emergency medical services (EMS) systems and ambulance service providers for the ground interfacility transport, including interstate transport, of patients known or suspected to have Ebola virus disease (EVD)
  - Plan to include 3 separate SOPs - 1) Air to ground handoff, 2) patient handoff between other entities (e.g., airport to ground ambulance, EMS to hospital, others as identified), 3) ambulance decontamination
  - Initial input and content received from SMEs

Summary

- Eliminate causes of delayed assessment
- Address laboratory concerns
- Review and revise list of Assessment Hospitals
- Request technical assistance as needed

Questions?

For more information please contact Centers for Disease Control and Prevention
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