



*Better health through
laboratory medicine.*

All Systems Go: Lab Safety and POCT in the Ebola Assessment Center



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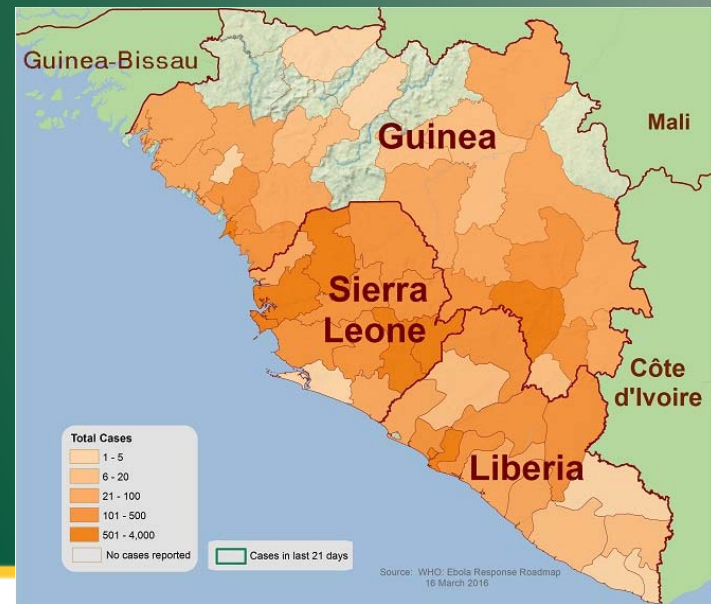
April 28, 2016

Objectives:

- Review our experiences with an infectious disease crisis.
- Evaluate the POCT options in the Infectious Disease Unit Laboratory.
- Outline steps to take to ensure patient and staff safety in the face of a potentially dangerous outbreak.

The Ebola Outbreak:

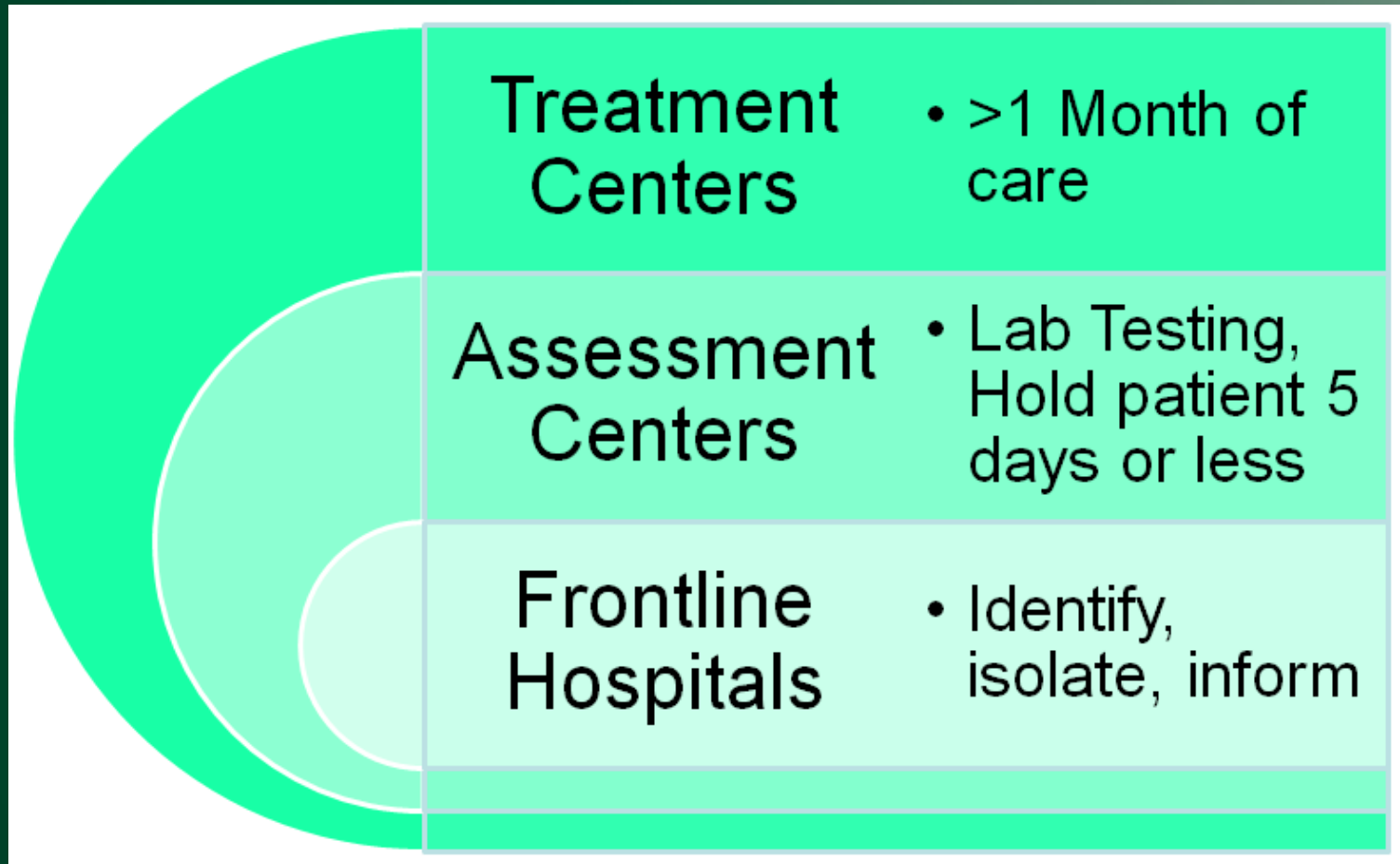
- Began March 2014
- Laboratory-Confirmed Cases: 15,255
- Total Cases (Suspected, Probable, and Confirmed): 28,646
- Total Deaths: 11,323
- Officially Ended On
March 29, 2016



Response in the U.S.



A Tiered Approach



Frontline Healthcare Facility



Quickly identifies and isolates patients with possible Ebola



Notifies facility infection control and state and local public health officials



Has enough Ebola personal protective equipment (PPE) for at least 12–24 hours of care

Prepares for patient transfer, if needed



Ebola Assessment Hospital



Safely receives and isolates a patient with possible Ebola



Provides immediate laboratory evaluation and coordinates Ebola testing



Cares for a patient for up to 5 days (including evaluation and management of alternative diagnoses) until Ebola diagnosis is confirmed or ruled out



Has enough Ebola PPE for up to 5 days of care

Transfers a patient with confirmed Ebola to an Ebola treatment center in consultation with public health officials



Ebola Treatment Center



Safely receives and isolates a patient with confirmed Ebola



Cares for patients with Ebola for duration of illness



Has enough Ebola PPE for at least 7 days of care (will restock as needed)



Has sustainable staffing plan to manage several weeks of care



CDC Ebola Response Teams (CERTs) are ready to deploy to provide assistance as needed

Sentara Princess Anne Hospital

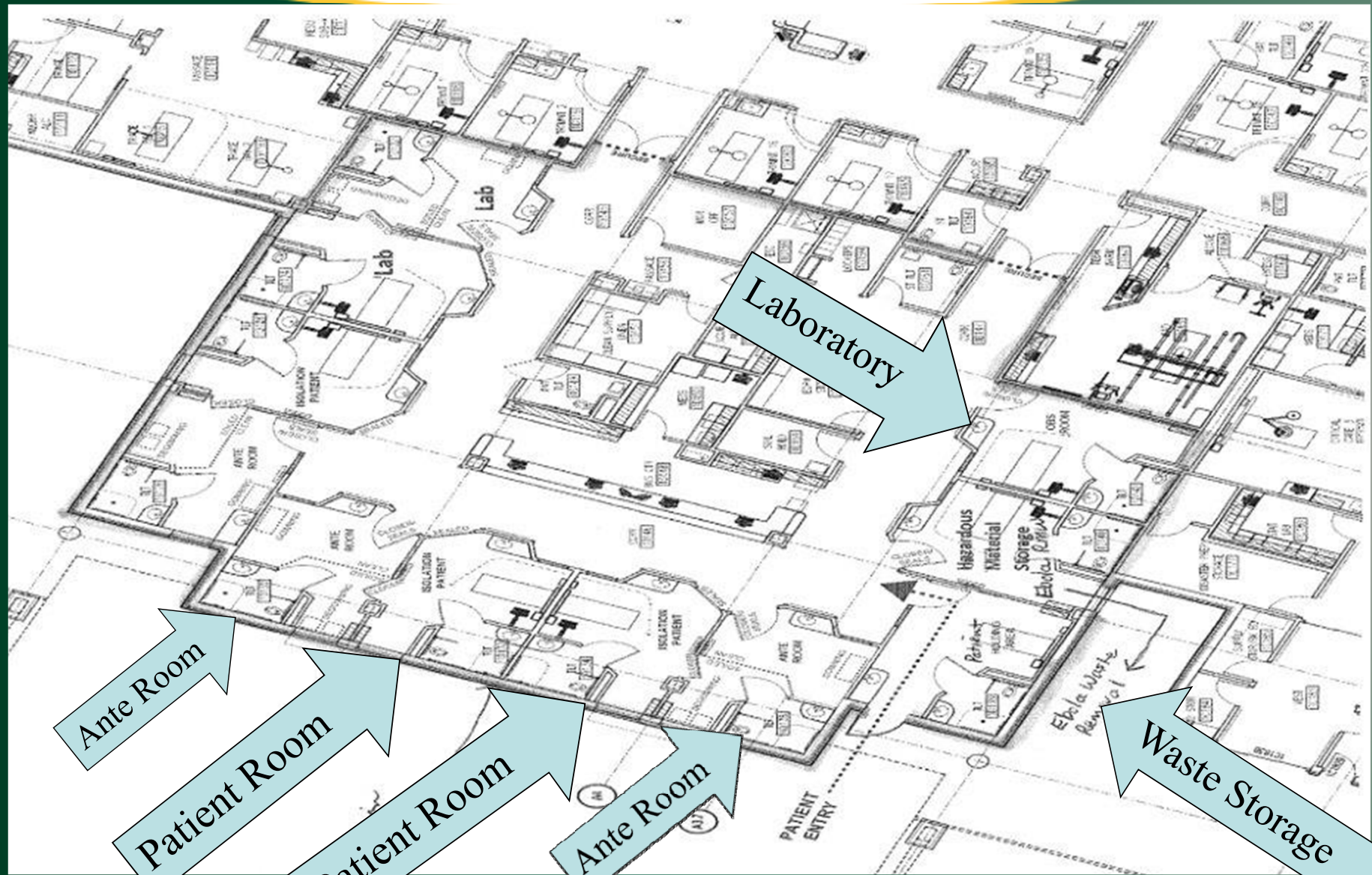


Assessment Facility Needs

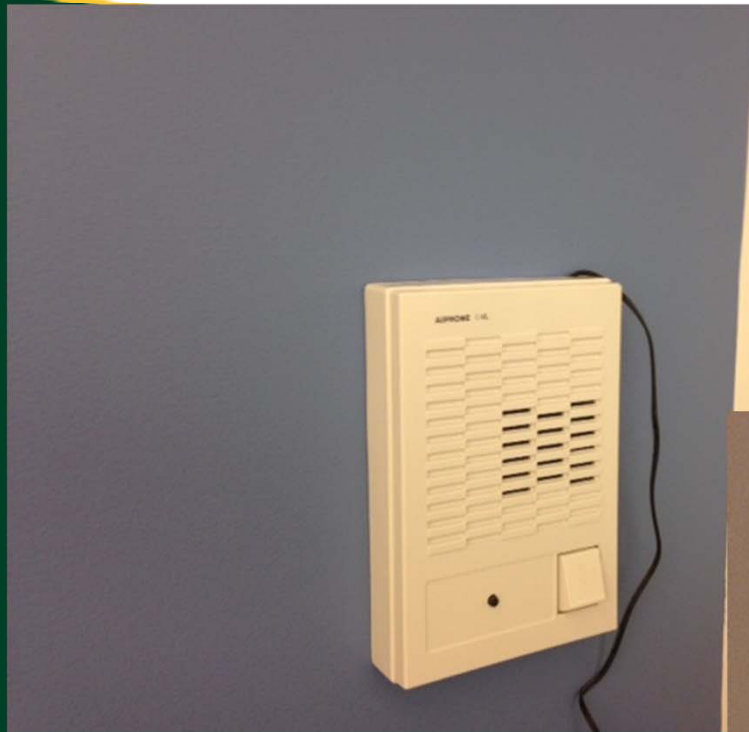
- Pre-hospital Transport Plan
- EMS and ED Preparedness
- Internal patient transport
- Patient placement
- Care team staffing
- PPE/Donning/Doffing procedures

Assessment Facility Needs

- Employee Health monitoring
- Lab Safety
- Infection Control
- Waste Management
- Communications
- Management of deceased
- Special populations







Laboratory Testing Pathways

- **POCT**
 - Performed by RNs in patient room
- **Lab**
 - Performed by Technologists in containment unit Laboratory
 - Performed by External Lab (state, CDC)

Nurse Training

- Blood collection
- Hand offs
- POCT Test Menu
 - UA Dipstick (manual read)
 - i-STAT



i-Stat Test Menu

- ABG (G3+)
- Lytes, Gluc, BUN, iCA, H/H (CHEM 8)
- Measured HCT, Calculated HGB
- Lactate (CG4+)
- Includes ABG
- Glucose—i-STAT, not glucose meter
- Special considerations: All wastes disposed in designated container in room

Test Result Entry

- Urine Dipstick
 - Manual form
 - Hand off to Lab tech
- i-STAT
 - Downloader
- Quality Control
 - Lab Tech perform & document

Infectious Disease Lab Tests

- CBC
 - Automated 3 part differential



Infectious Disease Lab Tests

- Chemistries
 - Chem Panel (Alb, Phos, Mg)
 - Liver Panel (Alb, ALP, ALT, Amylase, AST, GGT, Tbili, Total Protein)



Infectious Disease Lab Tests

- Malaria Testing
- Influenza Testing
- Rapid Strep Testing
- Protime
- Blood Culture Analysis
 - Incubator
 - Gram Stains



Laboratory Staff Training

- Analyzer Operation
- Result Entry
- Hand-offs
- Packaging & Shipping
- Special Safety Training



Laboratory Staff Training

- PPE



Laboratory Staff Training

- PPE



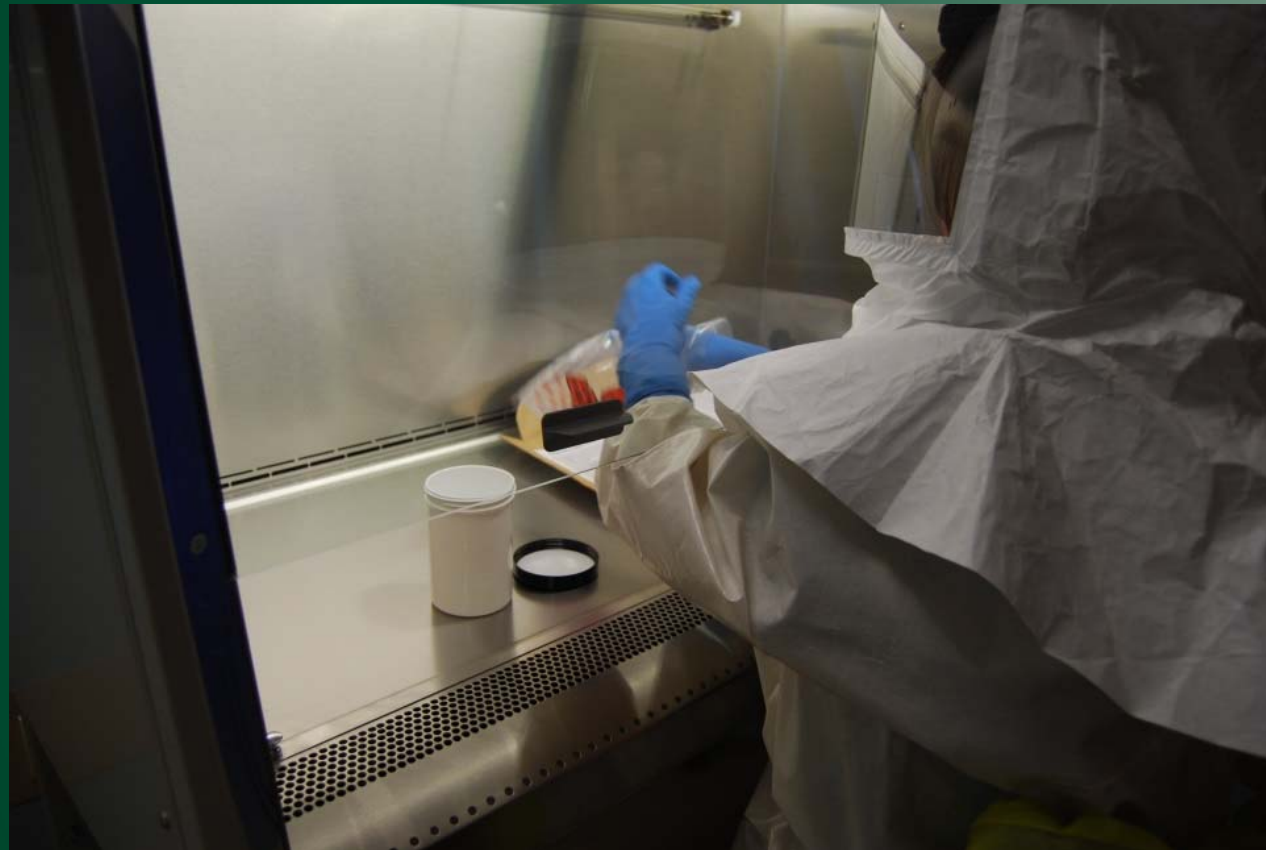
Laboratory Staff Training

- Working in PPE



Laboratory Staff Training

- PPE



Equipment/Other Considerations

- BSC
- Centrifuge
- Incubator
- Refrigerator
- Chemical Waste
- Biohazard Waste
- Space

Lessons Learned

- Flexibility
- Keep Going
- Resources
- Ready for the Future

All Systems Go!



CALL IN THE HAZ-MAT
TEAM! THIS GUY'S
SPILLING AMAZING ALL
OVER THE PLACE!

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- Questions?



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Thank you for attending!

Please join Mr. Scungio in the networking lounge for an online Q&A chat.

Visit the Resource Room to get the CE code for this session.