

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



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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.



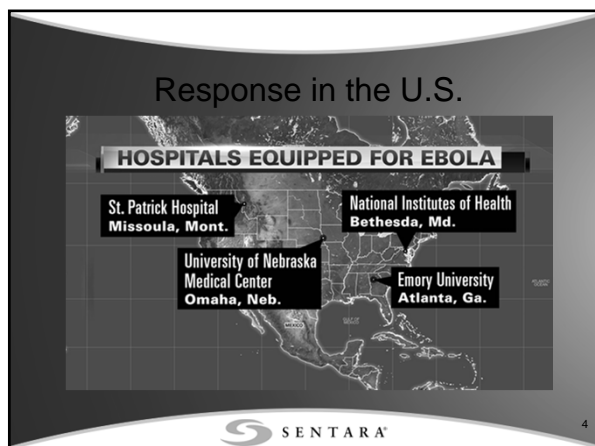
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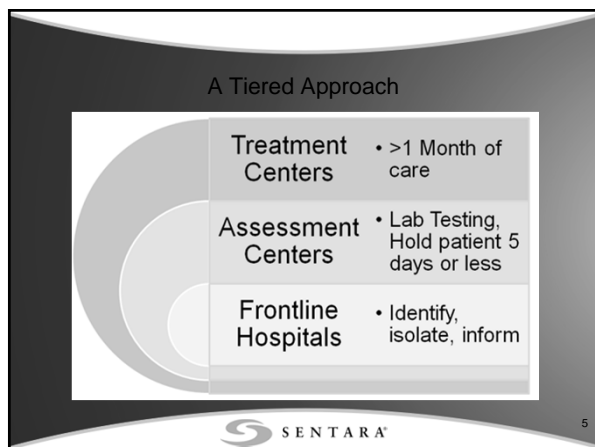
The Ebola Outbreak:

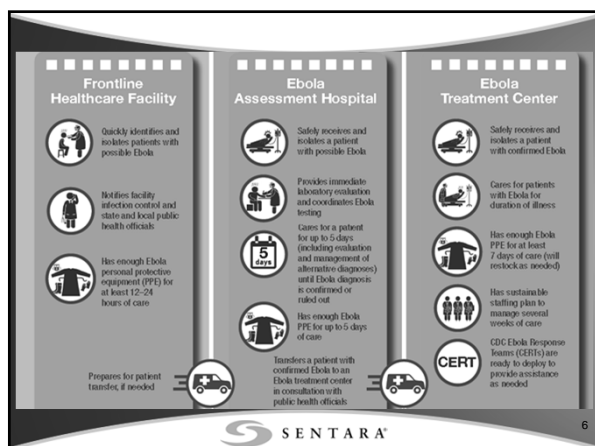
- Began March 2014
- Laboratory-Confirmed Cases: 15,255
- Total Cases (Suspected, Probable, and Confirmed): 28,646
- Total Deaths: 11,323
- Officially Ended On March 29, 2016



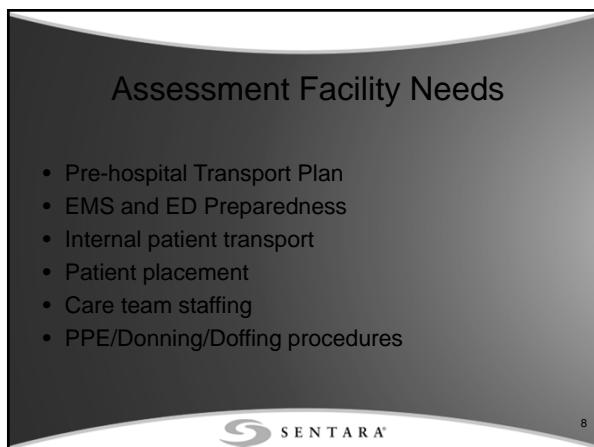
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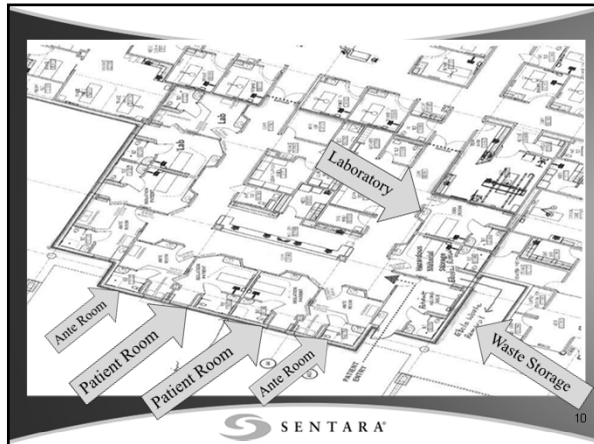

















Laboratory Testing Pathways

- **POCT**
- Performed by RNs in patient room


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



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Nurse Training

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





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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


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Test Result Entry

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



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Infectious Disease Lab Tests

- CBC
 - Automated 3 part differential



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Infectious Disease Lab Tests




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



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Infectious Disease Lab Tests

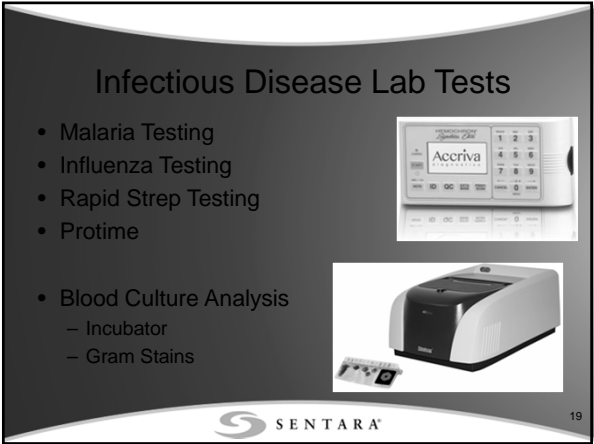
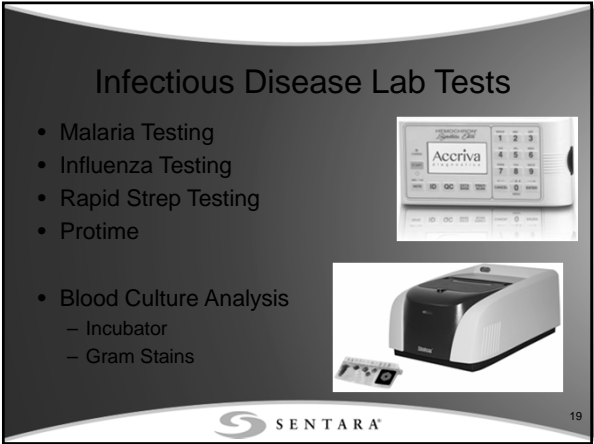
- Malaria Testing
- Influenza Testing
- Rapid Strep Testing
- Protime
- Blood Culture Analysis
 - Incubator
 - Gram Stains



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- # Infectious Disease Lab Tests
- Malaria Testing
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Infectious Disease Lab Tests

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Laboratory Staff Training

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



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Laboratory Staff Training

- PPE



A black and white photograph showing two individuals in a laboratory setting, fully equipped with personal protective equipment (PPE). They are wearing white protective suits, hoods, and face shields. One person is standing with their back to the camera, while the other is facing the camera. The background includes a doorway, a sink, and some laboratory equipment.

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Laboratory Staff Training

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Laboratory Staff Training

- Working in PPE

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Laboratory Staff Training

- PPE

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Equipment/Other Considerations

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



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Lessons Learned

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



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All Systems Go!



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

• Questions?

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