

A dark grey rectangular box, likely a placeholder for a logo or image.

Austin BioThreat Team

2014 Lab Updates

Staff Update

- › Becky McGillick
 - › Feb12 - July 17 2013
- › Mark Mergen
 - › October 1 start date
- › Erin Swaney
 - › UT Public Health Leader Certificate in Informatics

Sample Testing

Organism	Total Referred Samples	Cancelled or QNS	Positive	Negative
Bacillus anthracis	5	0	0	5
Brucella species	10	0	5 melitensis 2 suis	3
Burkholderia	0 (1 sent to CDC)	0	0	0
Clostridium botulinum	56	13	5 type A 2 type B	36
Coxiella burnetii	0	0	0	0
Francisella tularensis	1	0	0	1
Ricin	1 (Dallas aliquot)	0	0	1
Poxvirus	2	0	2 VZV	0
Yersinia pestis	0	0	0	0
Unknown Environmentals	3	0	0	3

Proficiency Testing (external)

Organism	Total PTs Received	Positive	Negative	PTs	Dates
Bacillus anthracis	3	2	1	CAP LPX-A, CDC PT	April, Dec
Brucella species	0	0	0		
Burkholderia	0	0	0		
Botulinum (ELISA, culture)	0	0	0		
Clostridium botulinum (PCR)	0	0	0		
Coxiella burnetii	0	0	0		
Francisella tularensis	8	8	0	CAP LPX-A, DFA PTx2, CDC PT	April, Dec
Ricin	5	1	4	FERN milk	August
Poxvirus	0	0	0		
Yersinia pestis	12	9	3	DFA PTx2, FERN milk, CAP LPX-B	April, August, Sept, Dec
Unknown Environmentals	2	1	1	CDC PT	Dec

QA/QC

- › Met PT quota from QA department in 2013
 - › 2 per organism/year with all confirmatory tests
 - › CAP regulation
 - › Not applicable to environmental testing
 - › CDC PT: send patient sample for verification
 - › Form 2 for transfer and 1 month TAT
 - › DFA PT from CDC YP/FT lab
- › eZTrend temp/humidity monitoring system
 - › Installed, troubleshoot software, calibrated, began use
 - › Will upgrade to email reports and text notifications

Facility

- › Updates:
 - › New floors
 - › Roof leak and repair
 - › Ceiling drywall repair
 - › Hands-free sinks
 - › New -70C freezer



Post repairs



Tier 1 Select Agents

- › Moved all BT stock organisms to A600 March 2013
 - › Added EEE June 2013
 - › A600 only SA registered space
- › Tier 1 additions:
 - › Ongoing Suitability
 - › Self reporting, peer reporting, annual review
 - › Medical Surveillance
 - › Yearly physicals, baseline blood draw
 - › Intrusion Detection System to A600

Inspections:

- › Select Agent Inspection
 - › August 29 and 30, 2013
 - › Report finding received 1.27.14 (5 months)
 - › Most findings related to:
 - › Biosafety Plan
 - › Evacuations, Emergencies, PPE
 - › Access by uncleared individuals
 - › Inspection during construction downtime
- › CAP inspection expected Feb-March

Site Visits – Sentinels

- › Austin area (3 hospitals)
 - › August 2013
- › Kimble Hospital (3 hour drive)
 - › November
 - › Microbiology tech off sick
- › Brenham and Smithville
 - › February 2014

Site Visits – Reference labs

- › December
 - › Tarrant County
- › January
 - › Dallas
 - › Tyler
- › Future visits possible

Surge Testing and Drills

- › Exercise/Drill:
 - › BW Multicenter exercise
- › Surge:
 - › WS to West Nile Virus Sept 2013
 - › 3 weeks
 - › Biowatch assistance understaffed period
 - › 3 weeks
 - › San Antonio BLS3 surge for Austin
 - › Austin surge for SA BLS3

Special Studies

- › Ricin Tetracore Lateral Flow Study
 - › March 2012 test
 - › Publication December 2013
 - › Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science
- › Abrin Tetracore Lateral Flow Study
 - › March 2013 test
 - › Publication Spring 2013
- › MALDI
 - › Validation study completed August
 - › Routine testing started September
 - › APHL Working Group MALDI-TOF
 - › Multi-Center Validation Study expected 2013

LIMS_i

- › Tested messages in PHTEST successfully
- › Migrated to Production August 2013
- › Unexpected issues emerged:
 - › Test cases use PT submitter
 - › Reportable to CDC but not to NEDSS
 - › Actual test samples go to NEDSS
 - › PCR controls (RP/16S) are "Reactive"
 - › Causes EPIs to think the sample was positive
- › 13 of 24 test cases entered in Production currently
- › Project Coordinator Willis took a job outside the lab
- › Only one staff member to handle all lab IT issues

Training Presented

- › BSL3
 - › 9 trained in May
- › Wet Workshop
 - › July for 12 Sentinels
 - › January for 11 Sentinels
- › Conventional Methods
 - › October for 6 people

Trainings Attended:

- › FERN BA and YP
 - › Garrick, Cincinnati, OH
- › APHL/Radix Training for Ricin Bioplex Assay
 - › Erin, St Paul MN
- › CDC Conventional Methods
 - › Erin, Richmond VA
- › ASM Biodefense and Emerging Diseases Conf.
 - › Erin, Washington DC
- › CDC Rapid Methods
 - › Mark, Denver CO

Unusual – ricin update

- › Ricin UT samples
 - › 14 Unknown Environmentals
 - › Xmas eve 2011 to end of January 2012
 - › Update by SA Runkel:
 - › Quantico FBI lab was never able to prove active toxin
 - › Suspect confessed to attempting to manufacturer ricin but discarded the materials
 - › WMD charge very difficult to prove
 - › Suspect sentenced to 5 years in prison
 - › Child pornography charges

Unusual - botulism

- › IV drug user
 - › Multiple wound abscesses
- › Clostridium botulinum type B
- › Positive wound botulism from swab
 - › Debrided wound prior to swab collection

Unusual - botulism

- › Dual toxin producing *Clostridium Botulinum*
- › Type Bf
 - › Culture and mouse bioassay ongoing
 - › PCR – genes for B and F
 - › ELISA – toxin produced by B and F

MERS CoV

- › Tested by virology lab
- › 11 samples tested
 - › All travelers
 - › All negative

Future Projects

- › CAP LPX results summary
 - › Will divide all Texas data
 - › Send to Reference Labs to target training
 - › Paper-based PT in development
- › First Responder Training
 - › Pilot Austin June 6
 - › Goal of online version in future
- › Labware upgrade v6
 - › Test cases begin March 1
 - › Rollout by August 1