Evaluating and Improving Biosafety in Uganda and Rwanda

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ABSA 2012
Charge

- Work with MoH to improve TB and HIV national reference laboratories
- Train & mentor biosafety officers
- Introduce 14 point biosafety program
- Assist in meeting the WHO Afro Laboratory Assessment Accreditation criteria
Visits to Uganda Labs

- March 2010 – self
- September 2010 – with Jim Herd, ME (Alliance Biosciences)
- March 2011 – with Jim Herd, ME (Alliance Biosciences)
- November 2011 – with Shanna Nesby (CDC) to conduct biosafety training course
Key Personnel

- Joel Opio, CDC BSO
- Joseph Bukusuba, HIV lab, UVRI, Uganda
- Henry Byabajumga, BSO, NTbRL
- Peter Awongo Chaiga, Principal Lab Technologist, NTbRL
- Ojwiya Amato Menya, Head Central PHL, AfBSA Counselor
National TB Reference Lab, Kampala
Achieving BSL-3

Declaration Statement

This is to declare that

National TB Reference Laboratory

is participating in Strengthening Laboratory Management Towards Accreditation (SLMTA) process

and is committed to continuous laboratory improvement

Ministry of Health

CDC

AFRIPH
NTB Facility, Kampala

New UPS

Henry Byabajumgu, BSO, and Dr. Nesby
Inside NTB BSL-3 Lab

Certified BSCs and double-door autoclave
NTB BSL-3 Support Systems
Kampala

HEPA Exhaust System

Emergency Generator
Chemical Issues

Chemical storage and
Emergency egress access
Hand washing lab coats & open pit burning
Dr. Downing’s HIV Lab  
(CAP accredited)

Lab now has a trained  
BSC certifier
Accessioning & sample storage
BSL-2 HIV Lab

PPE & pipetting devices appropriate

Windows open, BSC not certified
Medical Waste Management,
UVRI, Entebbe
Future Planning
2nd & 3rd tier labs
Kigali, Rwanda
National Reference Laboratory

• NRL is the top-level diagnostic laboratory in Rwanda.

• Capable of blood-spot analysis for HIV/AIDS and BSL-2 level TB diagnostics
  – Microscopy
  – Solid culture (agar slants and plates)

• Wishes to do liquid culture at BSL-3
Principal Contacts

Sabin, NRL BSO

Eugene, CDC
Infectious waste treatment at NRL

Autoclave before incineration
Major Accomplishments

- BSO appointed, mentored, trained & full time
- Staff training begun by BSO
- Signage, security & fire safety up-grades
- In-coming sample delivery system activated
- Emergency power system (UPS, generator)
- Lab clothing washing on site
- Planning for BSL-3 up-grades for liquid TB work
More Accomplishments

- Safety committee appointed, trained
- Biosafety manual prepared, many SOPs done
- Staff training accomplished
- Lab accident / incident reporting initiated
- Addition of Senior Technical Consultant from the International Center for AIDS Care and Treatment Program, Columbia U. (ICAP)
Needing Attention

- Better understanding of budgetary process
- Replacement of 2 BSCs
- Decision on construction of new facility
- Continued outreach to lower-level labs
- Networking / training to improve biosafety country-wide
- Tb lab renovations to BSL-3
NRL Tb lab improvement recommendations

- Provide directional inward air flow, pressure indicators, door closers for lab
- Provide emergency eye wash station
- Install backflow preventer in the supply water
- Ensure windows in Tb rooms are secured closed
- Seal through-the-wall and floor penetrations
- Seal tile cove moldings
Achieving Directional Inward Flow
New Biosafety Association

Uganda Biosafety and Biosecurity Association (UBBA).

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