


University at Buffalo Ebola Preparedness

Fall 2014



Today 's Session

- SUNY Response
 - Ebola Virus Disease
 - UB Response
 - Communications Plan
 - Discussion/Questions?
- 

Ebola Virus Disease (EVD)

John A. Sellick, Jr., DO, MS, FACP, FIDSA, FSHEA

Associate Professor of Medicine

Division of Infectious Diseases

Hospital Epidemiologist

Veterans Affairs Western New York Healthcare System

Kaleida Health



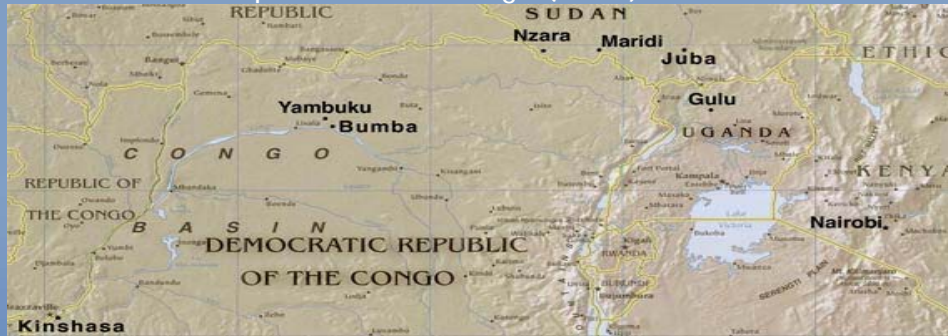
No disclosures or conflicts of interest

Borowitz Report

The president of CNN Worldwide, Jeff Zucker, attempted on Wednesday to defuse the brewing controversy over his decision to change the network's official slogan from "The Most Trusted Name in News" to "Holy Crap, We're All Gonna Die."

Ebola Virus

1976, Democratic Republic of the Congo (Zaire) and Southern Sudan



Discussion/Questions?

SUNY Response

Chancellors Memorandum

- Directs all Campuses to Comply with CDC and NYS DOH directives
- Assign one person on each campus as the Primary Contact
- Reiterates travel ban to affected area for UB related activities
- Work to identify all travelers from affected area and offer support/health monitoring
- Conduct "Ebola event" specific drills
- Review/revise campus-level planning documents
- Outreach to campus community

October 17th, 2014

SUNY Working Group Members Weekly Conference Calls

- Dennis Black
- John Shellick, Jr.
- David Pawlowski
- Jessica Baker
- Steering Community
- Medical Group
- Emergency/EHS/Police Group
- System Support Group

Infection

Transmission through

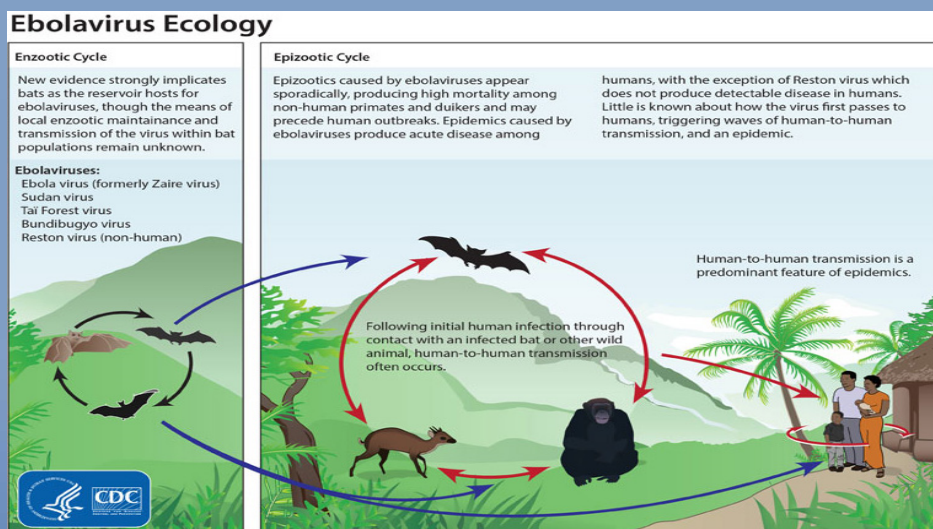
- Breaks in skin
- Nose/eyes/mouth exposure
- Cuts, punctures

Initially from infected animal

Subsequent cases human-to-human

- Exposure to BBF of cases/deceased
 - Blood, vomit, feces, urine, sweat, semen, breast milk
- Reuse of needles and other devices
- No evidence of airborne transmission

Ebola Virus Ecology



Human Factors

Proximity to reservoirs/vectors

Political strife, civil war

Poor medical infrastructure

- Rudimentary, overcrowded hospitals
- Reuse of needles, *etc*
- Lack of personal protective equipment

Human Factors (2)

Old habits...

- Social habits
- Death rituals - washing of body
- Witchcraft, conspiracy theories
- Distrust of Westerners
- Reliance on bush meat

Clinical Manifestations

Incubation period 8-10 d (range 2-21 d)

Presume infectious once symptomatic

Initial nonspecific symptoms

- Fever, weakness, loss of appetite, headache, muscle aches

GI symptoms also common early

- Nausea, vomiting, abdominal pain, diarrhea

Specific Diagnosis

CDC, State & NYC Labs ONLY

- "PCR"

Differentiate from

- Malaria
- Typhoid fever
- Dengue fever
- Others

Treatment

Supportive

- Fluids, nutrition, transfusions, *etc*

Experimental

- Variety of drugs used on “emergency” basis
- “Plasma” (convalescent serum)
- Others

Vaccines in development/testing



So what does this mean for us?

Risk of Transmission

Case finding

Suspected case management

“The situation is fluid...”



Risk of Transmission

26 prior outbreaks of EBOV/SUDV/BDBV

- 1976 - 2013 (includes laboratory cases)
- All terminated with barrier precautions

1995 Kikwit, DRC EBOV Outbreak

- 27 documented cases
- 28/173 (16%) household contacts developed EVD
 - 28/95 (29%) who had direct contact with cases or their body fluids became infected
 - None of 78 household members who did not have direct contact became infected

Risk of Transmission (2)

2000 Uganda SUDV Outbreak

- 26 lab confirmed cases, Gulu Regional Hosp.

54 non-blood clinical specimens

- Saliva, skin, stool, semen, breast milk, tears, nasal blood

33 environmental specimens

- ⊖ non-bloody specimens (+)
- 2 bloody specimens (+) by PCR only

Risk of Transmission (3)

1996 Johannesburg, S. Africa Hospital

- Unrecognized EBOV case - recovered
 - Had upper/lower endoscopy during care
- Anesthesia asst. infected (? needlestick)
 - Undiagnosed ~12 days
 - Moved to VHF specialty unit at referral hospital d14
 - Multiple procedures including surgery
 - Died d23
- >300 HCWs monitored, **NO** other secondary cases related to either patient!

What about Spain & Dallas?

“Patients become more and more contagious as the disease progresses because viral load increases and more organ systems involved...”

*Peter Hotez, MD, PhD
Dean, National School of Tropical Medicine
Baylor School of Medicine*

“A dangerous moment is when you undress. When you come out of the isolation unit, you take off your protective gear and you're full of sweat, and you may take off your glasses and do like this,” he explained, rubbing his eye.

*B. Peter Piot, MD, PhD, DTM
Director, LSHTM & EBOV Co-discoverer
AFP Interviews (retrieved from Yahoo! News)*

Disinfection/Environment

Ebola virus is killed by existing products used for hand hygiene and environmental cleaning

No apparent spread by inanimate objects that are not contaminated by blood

SHC Staff Protection

Protecting all skin and mucous membranes from all exposures to BBF during patient care

Meticulous, systematic strategy for putting on and taking off PPE to avoid contamination and to ensure correct usage of PPE

Trained monitors to ensure processes are followed

PRACTICE!!

Suspects

Fever $> 101.5^{\circ}$ F + additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage;

AND

Epidemiologic risk factors within the past 21 days:

- Residence in - or travel to - an area where EVD transmission is active
- Contact with blood or other body fluids or human remains of a patient known to have or suspected to have EVD

Management

Patient answers "yes" to screening questions

Placed immediately in designated room

Initial history - if still suspect, call ECHD

Remains in room until transferred to ER

UB Ebola Preparedness

SUNY Working Group Charge

- Convene regularly and is charged to monitor the situation locally, nationally and internationally, and to ensure that the SUNY campuses, Chancellor, Board and other relevant stakeholders have access to the latest available information and guidance.
- Includes campus specialists in medical management, public health, emergency management international programs and student devices.

Has Specialty Committees:

- Medical Specialty Group; topics including patient recognition, public health initiatives and infection control protocols
- Emergency Management/Environ safety, and emergency response.
- Student/international Programs Specialty Group ; Topics including management of residential populations, student travel, and community education.

UB Ebola Advisory Group Members

- Daniel Arrasjid, University Communications
- John Della Contrada, University Communications
- Andrea Costantino, Campus Living
- Beth Del Genio, President's Office
- Allen Greene, Division of Athletics
- Christina Hernandez, Office of Academic Affairs
- David Pawlowski, University Facilities, Health and Safety Services
- Joseph Raab, University Facilities, Health and Safety Services
- Jim Reger, University Police (Emergency Manager)
- Barbara Ricotta, University Life and Services - Student Affairs
- Gerald Schoenle, University Police
- Eileen Sherman, Office of the Provost
- Susan Snyder, Health Services
- Kevin Thompson, University Facilities - Planning and Design
- John Wood, International Education (Office of the Provost)

UB Communications Plan

Compliance Status

Commissioner of Health Order Article 28 licensed Diagnostic and Treatment Center.

- Applicable to Article 28 facilities under NYS Public Health Law
 - Only the dental school is a “covered entity”
- Ten days to comply
- Identify a 24/7 contact for the “entity”
- Written procedures for:
 - ID of potentially infected person
 - Isolation
 - EC DOH & NYS DOH contact
 - Transport
 - Decontamination
 - Contact listing
 - Regulated medical waste disposal

Compliance Status (3)

- RIA
- Lighthouse
- Speech - Language Hearing Clinic
- UB MD (specifically UB Orthopedics)
- Ross Eye
- Others?

Compliance Status (2) Dental Clinic and Student Health

Dental School: Article 28

- Written plan in place
- Town Hall meetings conducted
- PPE training plan developed, training to be conducted soon
- Drills under development

Student Health Center:

- Written Plan in place
- Drills developed
- Table top exercise completed
- PPE and isolation drills to be conducted soon

Community Coordination

- Erie County Health Department
- Rural Metro
- Getzville Fire

Resources

- Centers for Disease Control and Prevention (CDC):
<http://www.cdc.gov/vhf/ebola/>
- New York State Department of Health:
<http://www.health.ny.gov/diseases/communicable/ebola>
- New York State Department of Health - Health Advisory:
http://www.health.ny.gov/diseases/communicable/ebola/docs/doh_advisory_2.pdf
- Advice for Colleges, Universities, and Students About Ebola in West Africa: <http://wwwnc.cdc.gov/travel/page/advice-for-colleges-universities-and-students-about-ebola-in-west-africa>