Welcome to the Emory SCDP ECHO "IPC for HCIDs- Fundamentals, Challenges, & Opportunities"

The session will begin soon.

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Project ECHO®

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Southern Regional Disaster Response System
HHS Region 4

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For educational and quality improvement purposes, we will be recording this video session. By participating in this clinic you are consenting to be recorded – we appreciate and value your participation.

Project ECHO® collects registration, participation, questions/answers, chat comments, and poll responses for some teleECHO® programs. Your individual data will be kept confidential. These data may be used for reports, maps, communications, surveys, quality assurance, evaluation, research, and to inform new initiatives.

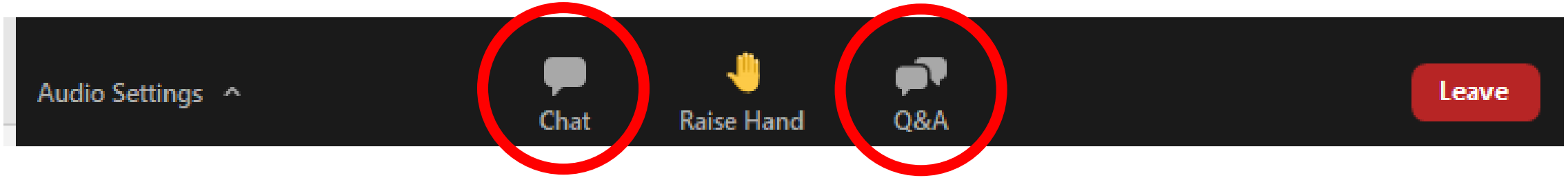
If you have any questions or concerns about this ECHO program, please email scdp.echo@emory.edu.

About this ECHO Program

- ECHO stands for “Extension for Community Healthcare Outcomes”
- Telementoring model, in which expert teams lead virtual clinics, amplifying the capacity for providers to deliver best-in-practice care to their own communities
- This ECHO program meets every other Thursday and discusses bioprepardness topics and special pathogens
- Sessions are recorded and published as a podcast- subscribe so you never miss an episode!

Reminders

- Experiencing IT issues? Send a message to IT ECHO in the Zoom chat.
- If you would like to ask a question, type it into the Q&A feature.



Continuing Education Accreditation

- In support of improving patient care, this activity has been planned and implemented by Emory University and Project ECHO® . Project ECHO® is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

AMA Designation Statement

- Project ECHO® designates this live activity for a maximum of 1.0 *AMA PRA Category 1 Credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ANCC Designation Statement

- Project ECHO® designates this live activity for a maximum of 1.0 ANCC contact hour. Nursing contact hours will be awarded for successful completion of program components based upon documented attendance and completion of evaluation.

Disclosures

Project ECHO®, in compliance with the ACCME Standards for Integrity and Independence in Accredited Continuing Education, requires that anyone who is in a position to control the content of an educational activity disclose all relevant financial relationships they have had within the last 24 months with an ineligible company.

None of the planners and presenters for this educational activity have relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

PRESENTERS

Kari Love, RN, MS, CIC, FAPIC
Anna Yaffee, MD, MPH

PLANNING COMMITTEE

Gavin Harris, MD
Aneesh Mehta, MD, FIDSA, FAST
Sharon Vanairsdale, DNP, APRN, ACNS-BC, NP-C, CEN, FAEN, FAAN
Yasmin Thornton, MPH
Allison Klajbor, MBA

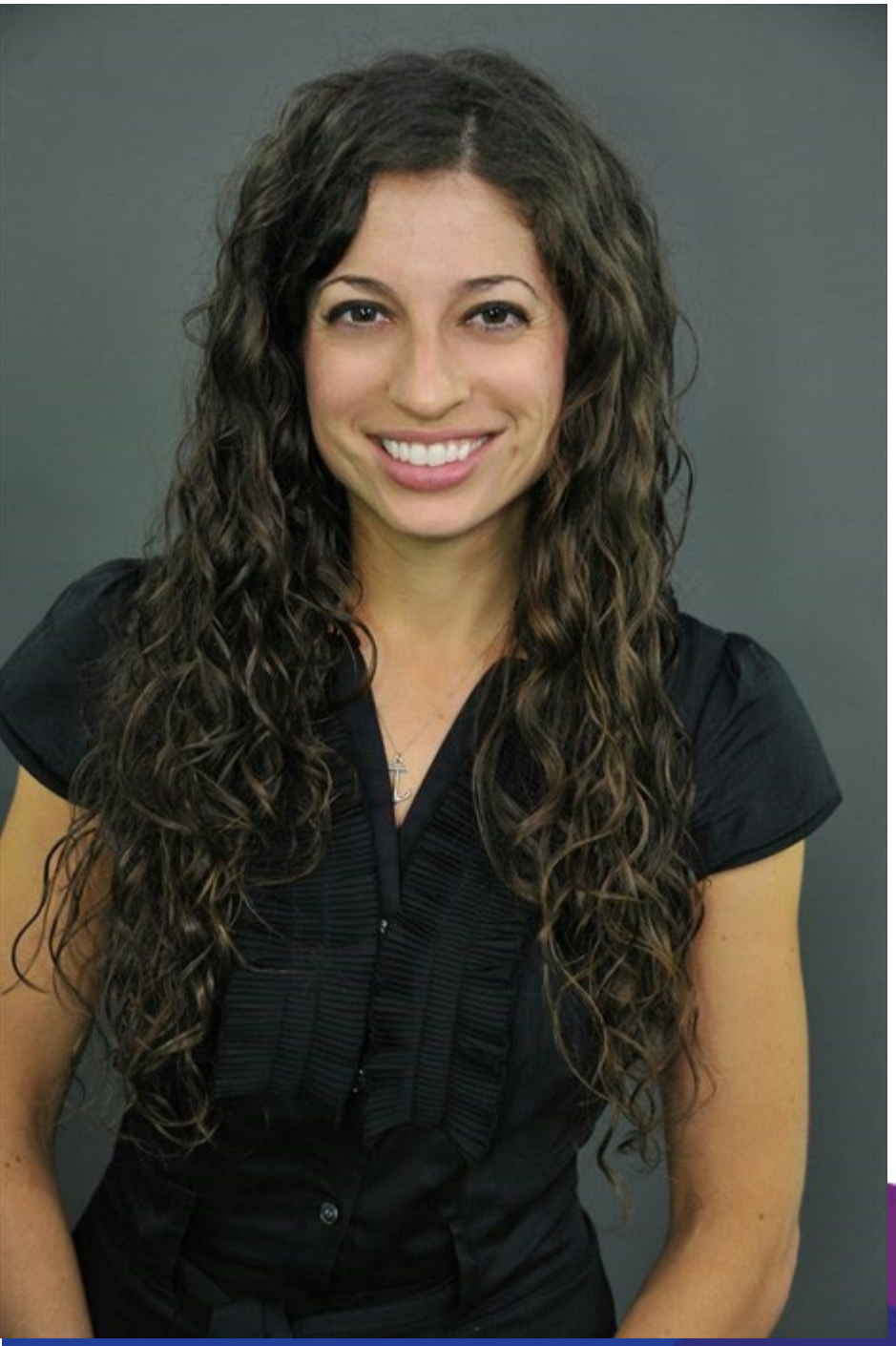
Agenda

- Welcome & Introductions
- HHS Region 4 Situation Report
- Poll Questions
- Case Presentations
- Table Talk Discussion
- Q&A
- Closing Remarks & Poll Question

Expert Panelist

Kari Love, RN, MS, CIC, FAPIC

- Corporate Director of Infection Prevention at Emory Healthcare.
- Certified in infection prevention and control (CIC), has been recognized as a Fellow of APIC (FAPIC), and is currently completing her Ph.D. in Translational Health Sciences at George Washington University.
- Has published and co-authored books and numerous articles in peer-reviewed journals and continues to remain involved in the day-to-day challenges of infection prevention.
- Recipient of the Daisy Leadership Award for her contributions during the COVID pandemic response at Emory and has received recognition for her leadership and clinical achievements.
- Has worked in healthcare for over 30 years as a Registered Nurse and discovered her passion for infection prevention and epidemiology over 20 years ago.



Expert Panelist

Anna Yaffee, MD, MPH

- Associate Professor of Emergency Medicine, practicing clinically at Grady Memorial and Emory University Hospitals.
- Serves as the Emergency Medicine liaison to the Emory Serious Communicable Diseases Unit and assists with frontline serious communicable disease preparedness for the Emory Healthcare system as well as nationally through the National Emerging Special Pathogens Training and Education Center.
- Dr. Yaffee previously served as a Lieutenant Commander in the United States Public Health Service and worked as an Epidemic Intelligence Service Officer for the Centers for Disease Control and Prevention.

Region 4
Special Pathogens of Concern Situation Report

27 March 2025

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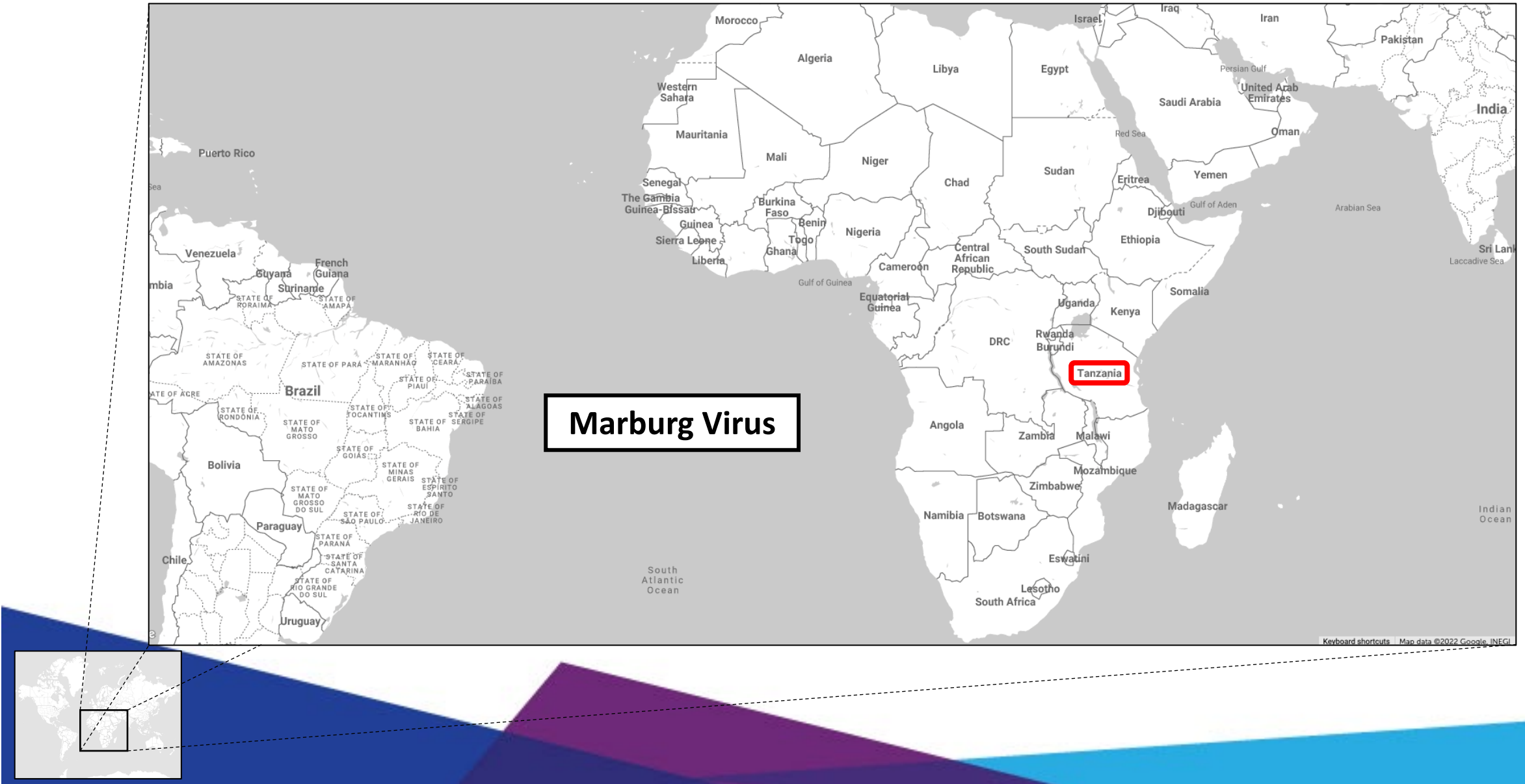
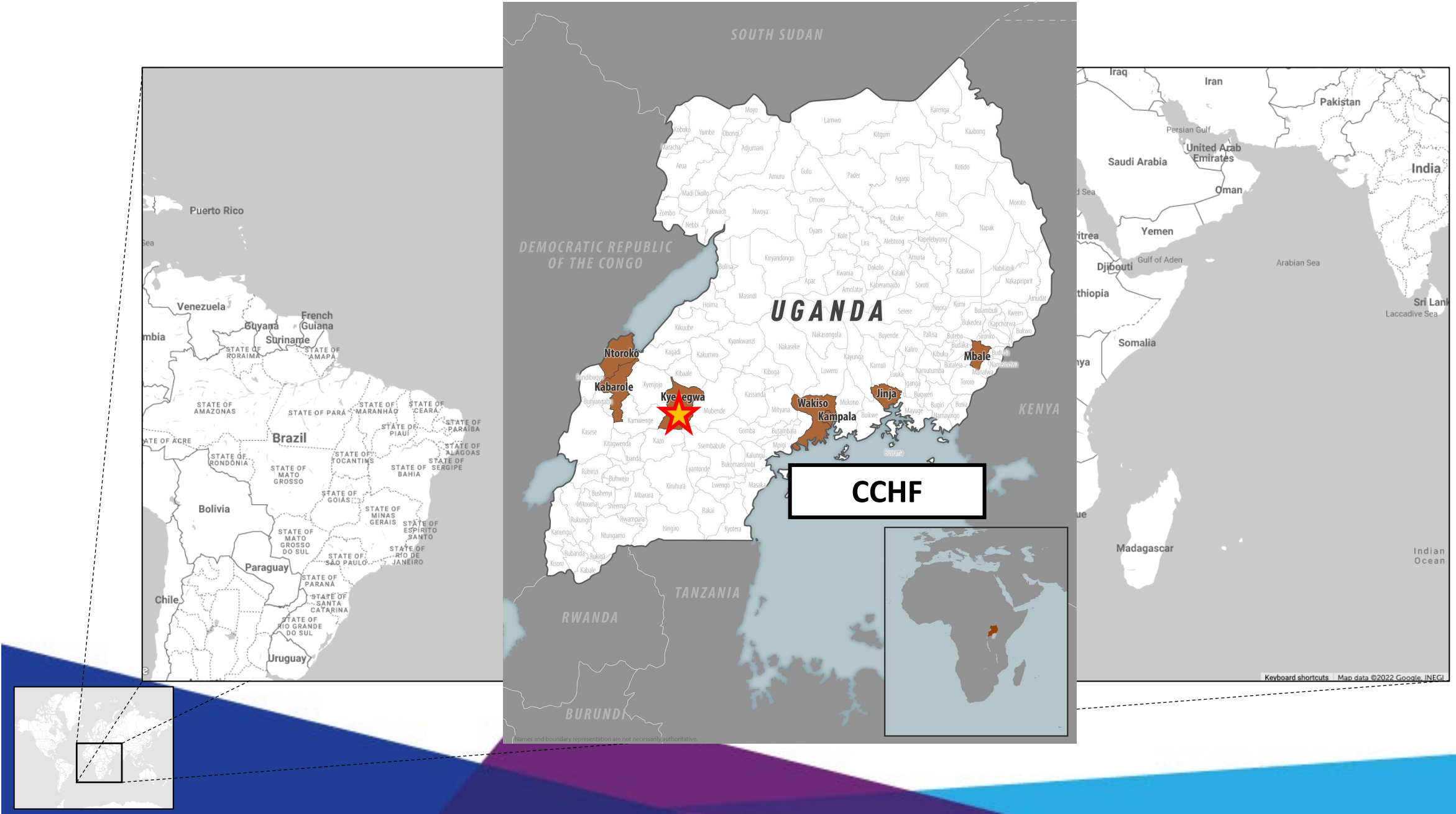
HHS Region 4

Situation Report 27 March 2025



Situation Report 27 March 2025



Situation Report 27 March 2025

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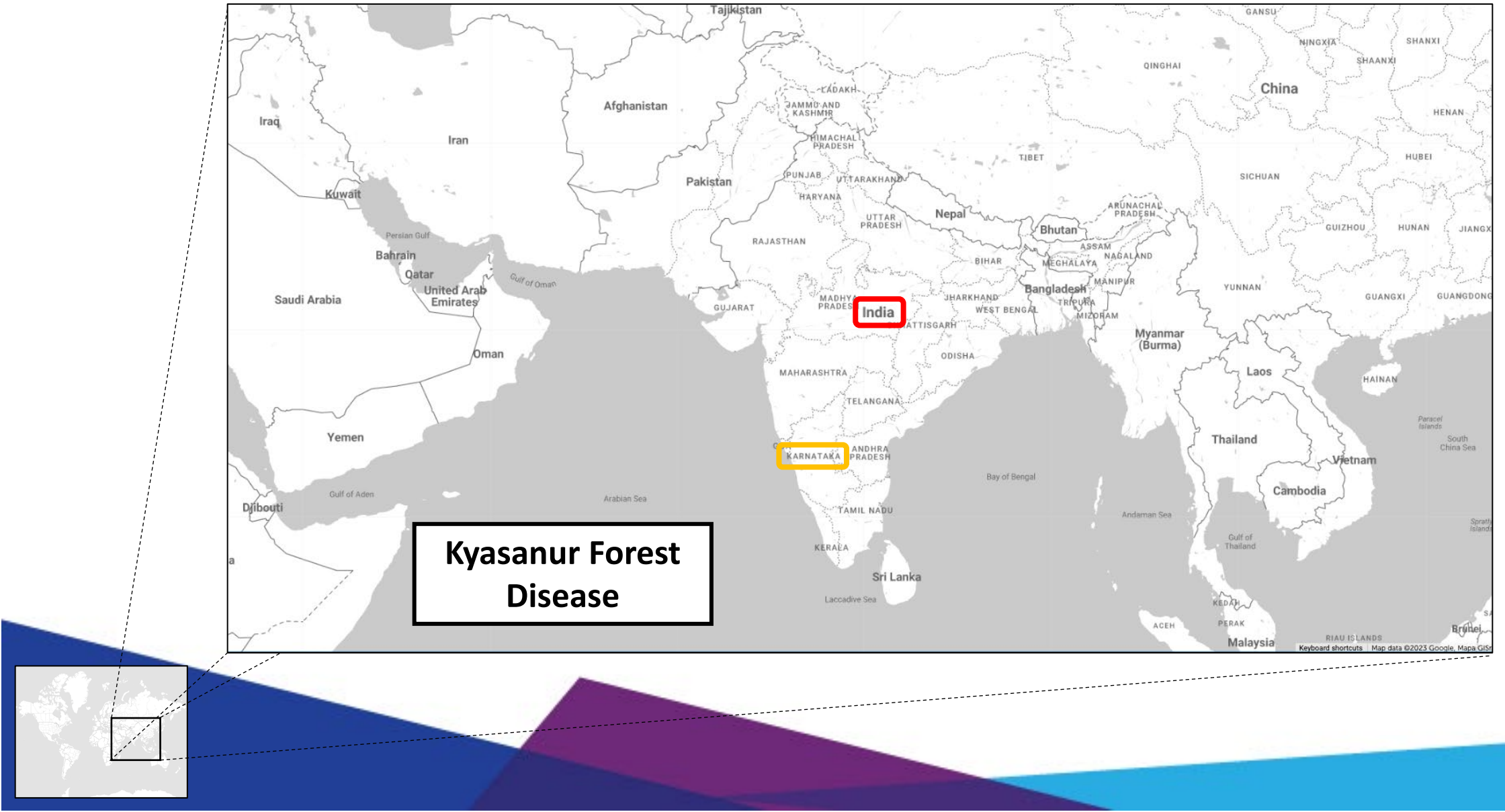
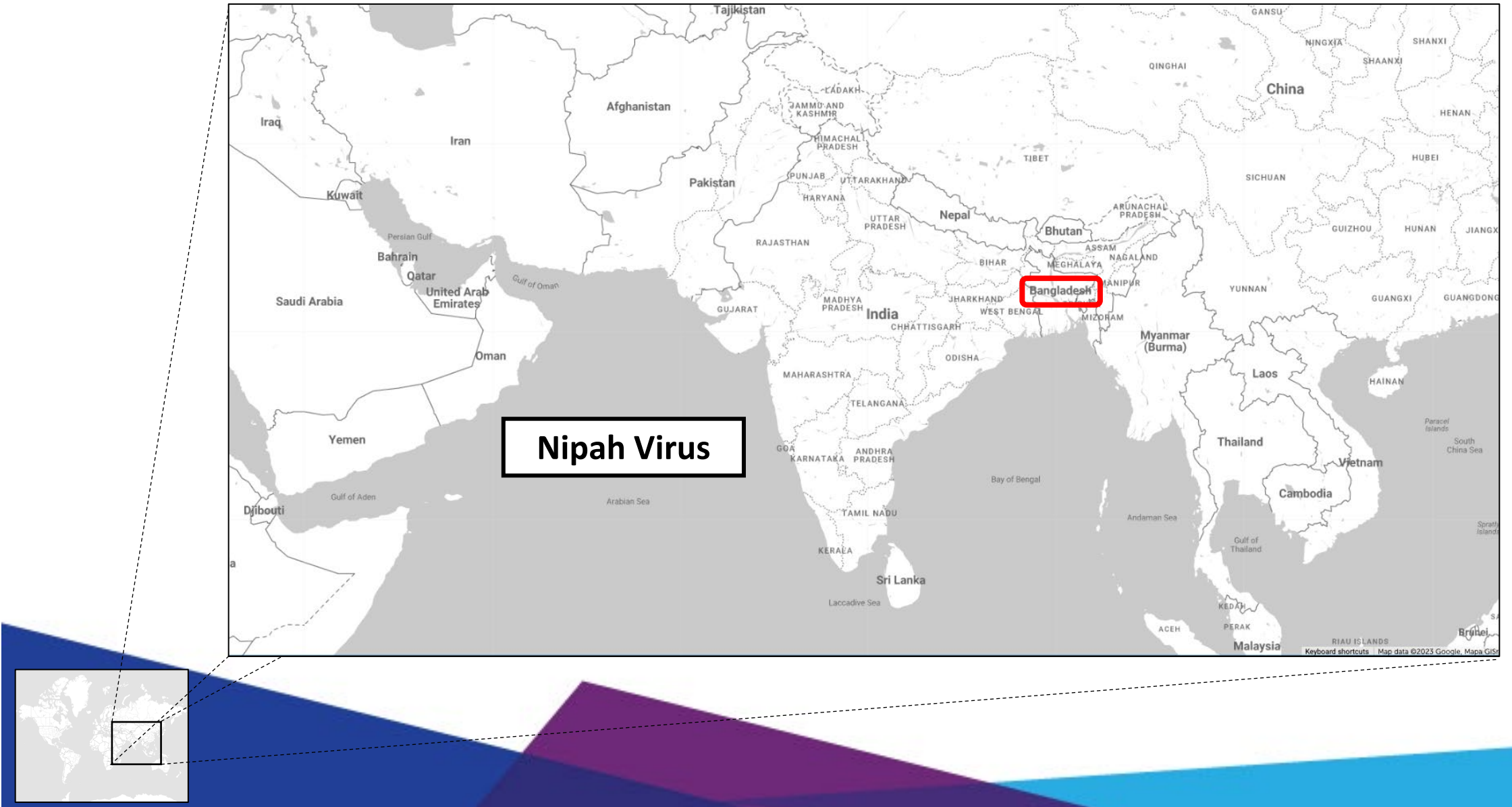


Situation Report 27 March 2025



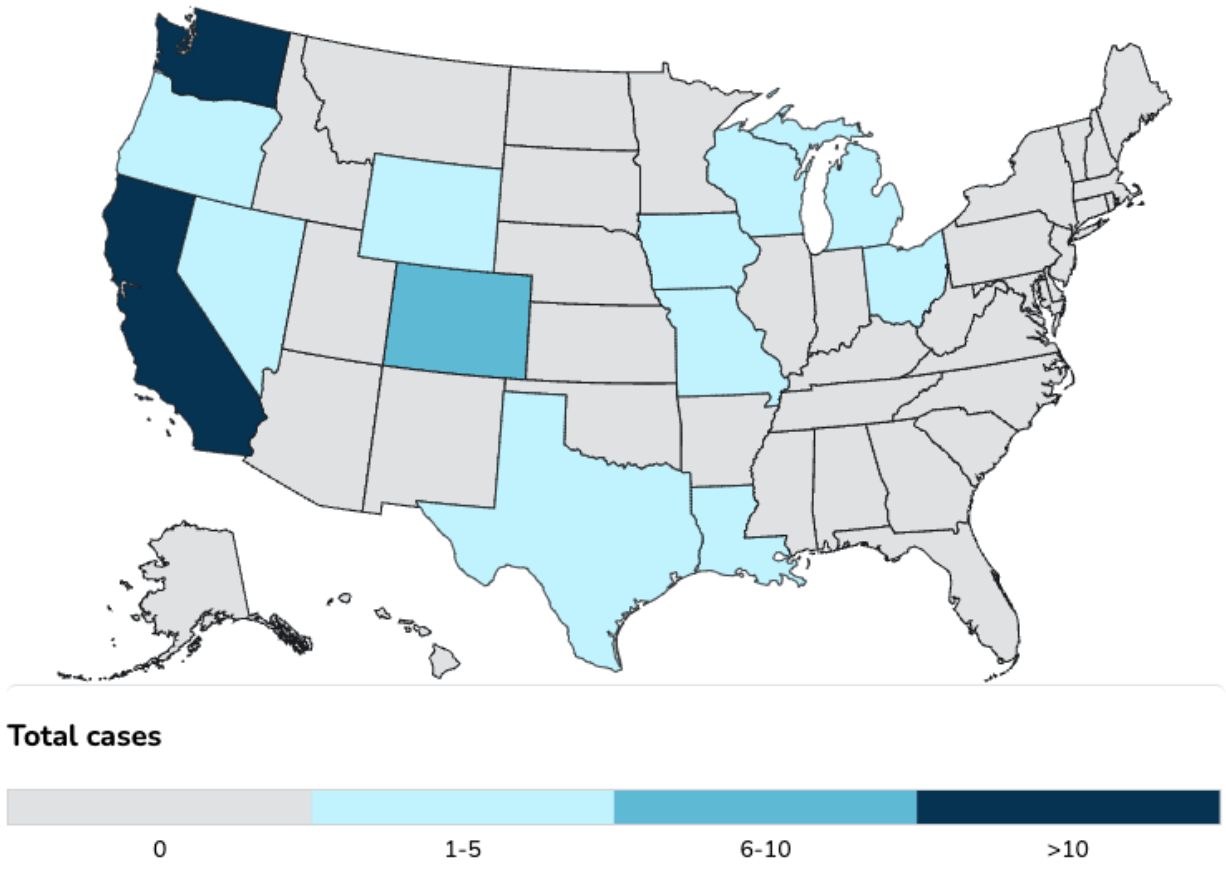
Situation Report 27 March 2025

National Total Cases: 70

Cases	Exposure Source
41	Dairy Herds (Cattle)*
24	Poultry Farms and Culling Operations*
2	Other Animal Exposure†
3	Exposure Source Unknown‡

NOTE: One additional case was previously detected in a poultry worker in Colorado in 2022. Louisiana reported the first H5 bird flu death in the U.S.

*Exposure Associated with Commercial Agriculture and Related Operations
†Exposure was related to other animals such as backyard flocks, wild birds, or other mammals
‡Exposure source was not able to be identified



H5N1

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Poll Questions

Case Scenarios

Case #1

The setting

- 22M w/ history of HTN, Type I Diabetes, recent unilateral “pink eye” walks into the Emergency Department waiting room with influenza-like symptoms including fever, cough, sore throat, nasal congestion as well as shortness of breath x 4 days

- Lives in a rural area in northern Georgia, family has flock of chickens in backyard, several died last week but were not reported to the Department of Agriculture

What do you do if this patient presents to your Emergency Department through the waiting room?

Let’s think about…

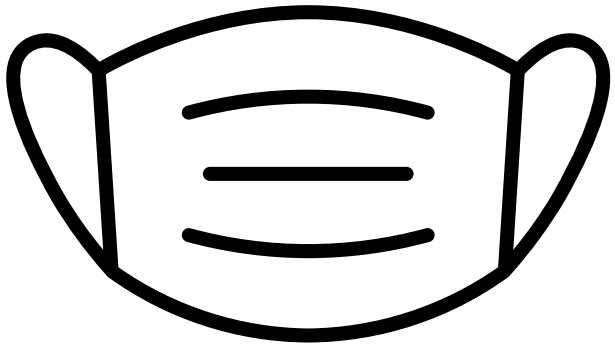
- Identify
- Isolate
- Inform
- Initiate care

Identify

- Do you have the following symptoms:
  - Bruising or bleeding
  - Vomiting and/or diarrhea
  - Fever
  - Joint and/or muscle pain
  - Rash
  - Weakness
  - Severe headache
- Have you traveled internationally in the last 3 weeks?

Isolate

- Place a mask on the patient
- Place patients in a private room with door closed – is this sufficient?
- Perform hand hygiene…a lot!
- Wear appropriate PPE



Isolation and HCW Safety

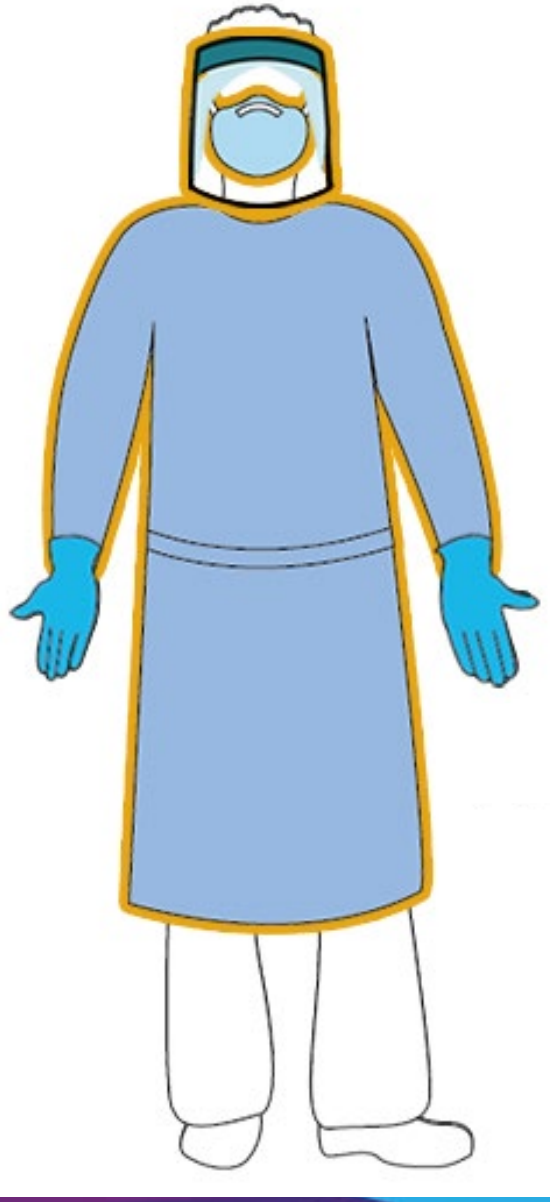
- Patient must wear a mask and keep the mask on – HCW must be comfortable wearing PPE and functioning in PPE
- Keep track of who is going in and out of the room
- Follow CDC guidance on PPE selection and wear, including donning/doffing
- Where possible, use dedicated (and disposable) medical equipment, limiting use of needles and other sharps
- Procedures that can increase environmental contamination with infectious material or create aerosols should be minimized
- If performing aerosol-generating procedures, follow guidance to reduce exposures (e.g., limit to essential personnel, utilize an airborne infection isolation room (AIIR) if available)

What PPE should clinicians don?

What PPE do I Need?

Minimum PPE for Suspect Cases

- N95 Face mask
- Full face shield
- Fluid resistant gown or coverall
- Gloves
  - 2 pair of gloves
  - Outer gloves must have extended cuffs
- Shoe covers
- Hair cover



After identifying and isolating, what should healthcare workers do next?

Inform

- Notify the appropriate officials at your organization
- Inform jurisdictional public health officials (in Georgia: 1-866-PUBHLTH)
- Ensure the team you are working with have situational awareness so there are no inadvertent exposures – proper signage, etc.
- Keep the patient informed

While informing appropriate officials, what is happening with the patient?

What testing is required?

Case #2

- 46F from GA presents to her local facility's urgent care clinic on a weekday morning with the development of fever to 103.4F, abdominal pain and body aches x 3 days

- She reports to the registration desk where it is discovered 10 days prior, he had returned to GA following a medical missionary trip to Kampala, Uganda

- The patient is given a mask and is taken back immediately to a previously identified isolation room with a door with a slit window where she sits down

- Ten mins later she vomits in the room

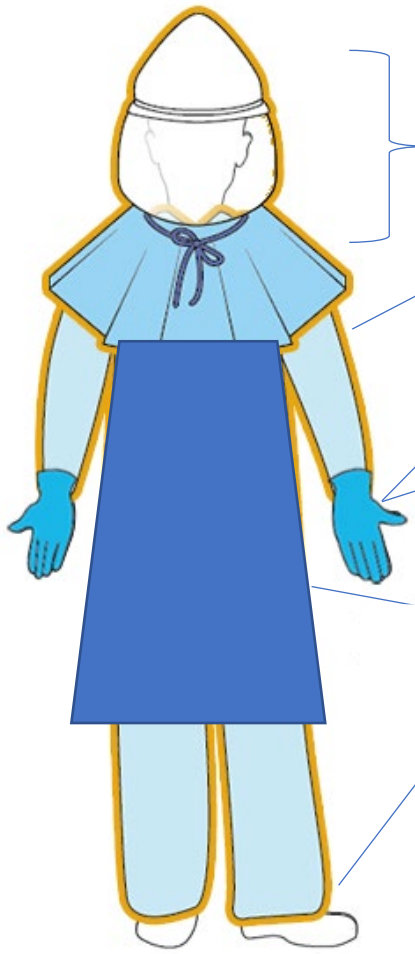
What is on the initial differential diagnosis list?

What to do now?

What PPE should clinicians don?

VHF? What PPE do I Need?

Acute (Wet)Phase and Body Fluid Exposure



Surgical hood (extends to shoulders)
Respirator or PAPR with full face shield, and helmet

Impermeable gown or coverall

2 pair of gloves
Outer gloves must have extended cuffs

Single use fluid resistant apron
covers torso to mid-calf

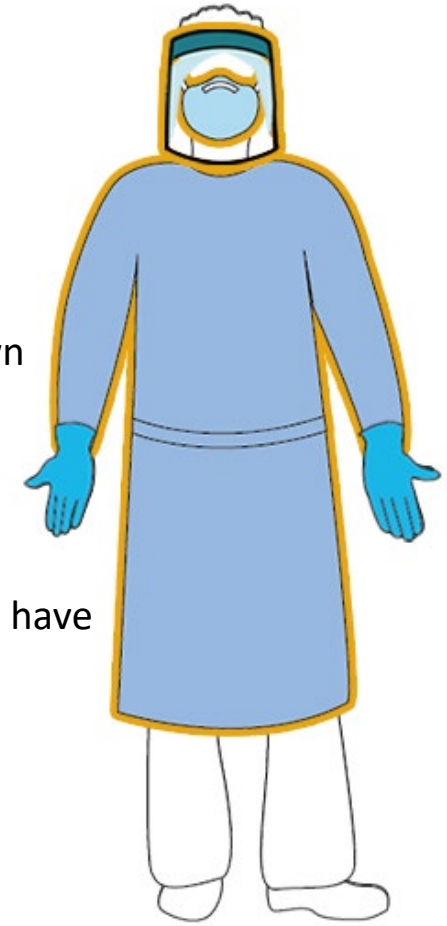
Single use shoe or boot cover

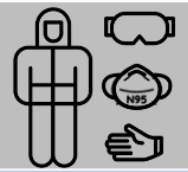
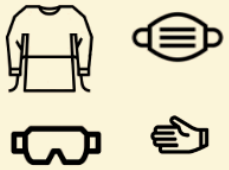
Absolute Minimum for Suspect Cases – No vomiting, bleeding or diarrhea

Face mask and full face shield

Fluid resistant gown or coverall

2 pair of gloves
Outer gloves must have extended cuffs



Virus Family	Illness Caused	Common Geography	Vector or Source	Person-to-person spread	Precautions	PPE	Comments
Filoviridae	Ebola Virus Disease	Central, sub-Saharan Africa	Presumed bat	YES	Contact, Droplet/Airborne, Eye		Full body coverage for acute (wet) phase
	Marburg virus		Fruit bat				
Arenaviridae	Lassa fever	West Africa	Rodents	YES	Contact, Droplet/Airborne, Eye		Full body coverage for acute (wet) phase
	Junín Machupo (Bolivian HF) Guanarito (Venezuelan HF) Sabia (Brazilian HF)	South America					
Bunyaviridae	CCHF – Crimean Congo Hemorrhagic Fever	Europe, Mediterranean, Middle East, Africa, India, China	Tick, infected livestock	YES	Contact, Droplet*, Eye		*Add respiratory protection (N95 or ↑) for centrifugation 
	Hantaviruses (HPS/HFRS*) (Sin Nombre, Andes virus)	Worldwide	Rodent	Possible	Standard Precautions unless Andes virus suspected		Contact, Droplet/Airborne, Eye for potential Andes virus or contact/clean-up of rodent droppings
	Rift Valley Fever	All of sub-Saharan Africa	Mosquito	No	Standard Precautions		
Flaviviridae	Yellow Fever	Tropics	Mosquito	Blood*	Standard Precautions		*Potential risk of Yellow Fever transmission in blood transfusion, immediately post vaccination 
	Dengue	Tropics	Mosquito	No			
	Kyanasur	India	Tick	No			
	Omsk	Siberia					

Case #3

The setting

- 46M physician is suspected of having a viral hemorrhagic fever after presenting with severe headache, fevers, chills, nausea and diarrhea. He returned from a 2-week trip to Liberia where he treated many patients in a rural clinic. He was not symptomatic on his return flight but 3 days after arrival began to have symptoms.

- He has been placed in an Airborne Isolation Infection Room (AIIR) in a Level 2 facility which is rapidly reaching crisis standards of care and will need to transfer to an RESPTC in the next 72 hrs…

- However, the patient has not been confirmed to have a viral hemorrhagic fever, nor have any tests been obtained…

Let’s think about…

- Identify
- Isolate
- Inform
- Initiate care/Intervene

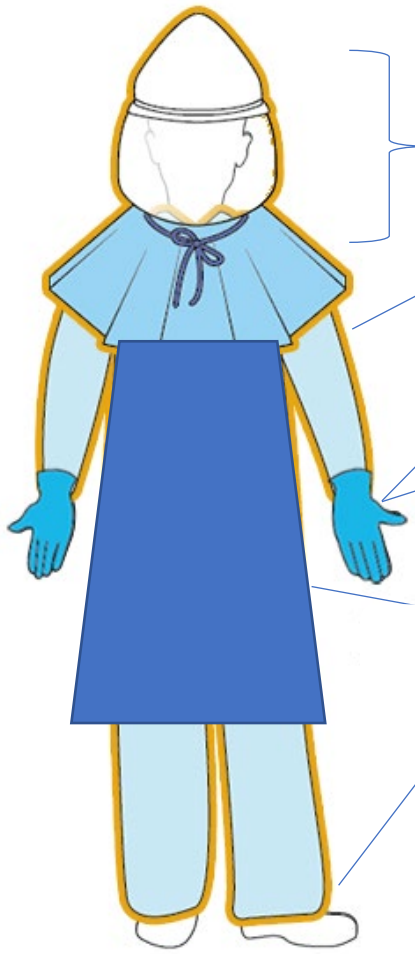
What is on the initial differential diagnosis list?

What testing is required?

What PPE should clinicians don?

VHF? What PPE do I Need?

Acute (Wet)Phase and Body Fluid Exposure



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Absolute Minimum for Suspect Cases – No vomiting, bleeding or diarrhea

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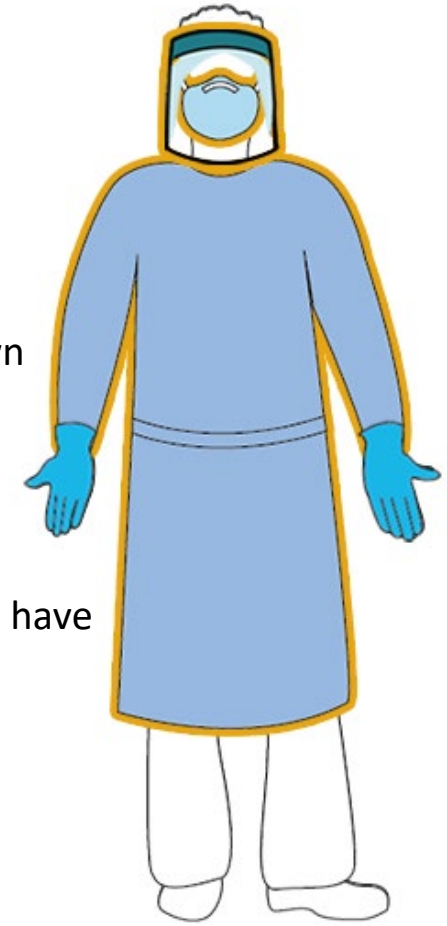
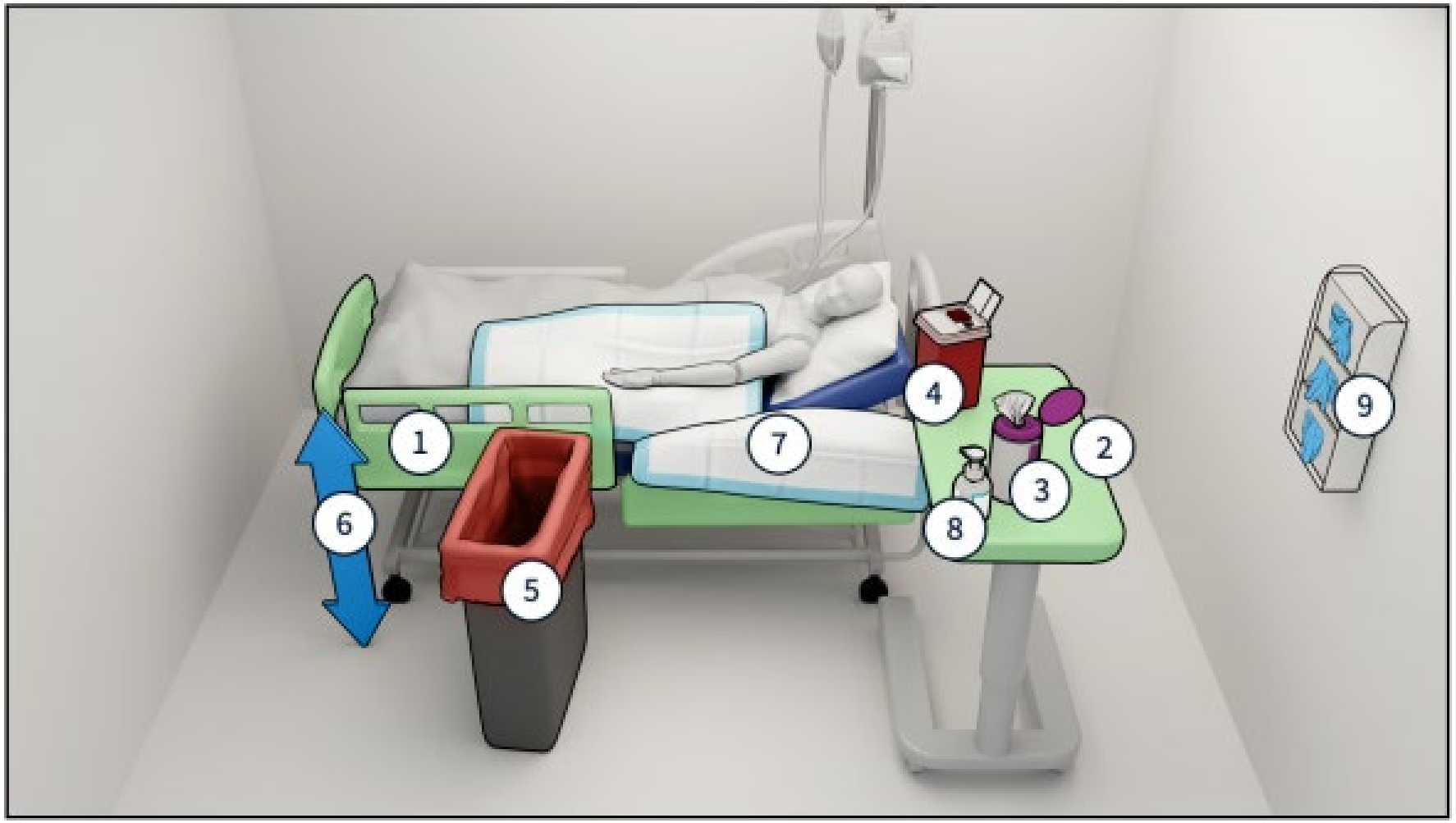


What are considerations with specimen collection and waste?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Nasopharyngeal Swab Collection Procedure

ITEMS REQUIRED

- Nasopharyngeal swab and transport media tube
- EPA-registered disinfectant wipes
- Waste container lined with a waste bag
- Lab transport biohazard bags
- Patient identification labels
- Permanent ink ballpoint pen
- Flashlight
- Facial tissues
- Appropriate PPE
- Alcohol-based hand rub
- Absorbent pad or barrier (if needed)

Pre-procedure

1. Don appropriate PPE.

2. Explain the procedure and give reassurance.

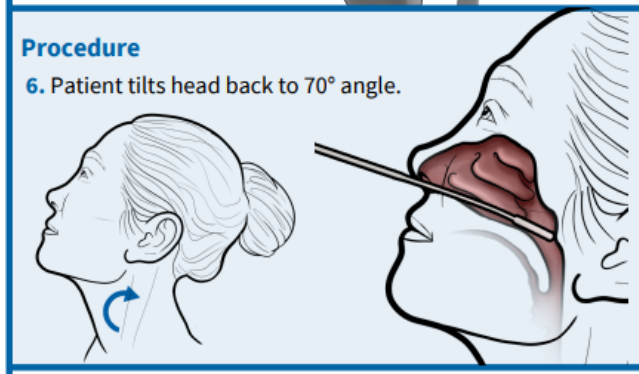
3. Lay out the supplies in a manner that is easy to access.

4. Utilize absorbent pad or barrier on bedrails, chair arms, and other surfaces if needed.

5. Have patient blow nose, then perform a visual inspection of nasal cavities.

Procedure

6. Patient tilts head back to 70° angle.



7. Insert swab into nostril until expected depth* has been reached.

**Expected depth in an adult with a normal nasal cavity is between 8-9cm. Note that resistance can be encountered in individual with nasal abnormalities, such as a deviated septum.*

8. Hold swab in position for a few seconds to absorb secretions, gently rotate swab at least once, then pull out slowly.

9. Place swab in transport media tube, break shaft and tighten lid.

Post-Procedure

10. Dispose of broken shaft into sharps container.

11. Disinfect tube, label according to facility protocol, then place in laboratory biohazard transport bag.

12. Disinfect laboratory biohazard transport bag and follow facility transport protocols.

13. Clean procedure area and provide care to the patient as needed.

Author: Vicki Herrera. Illustrations by Michael Konomos

www.netec.org 08.07.2024 info@netec.org

NETEC

Novel Respiratory Pathogens
Specimen Collection Tips for the Health Care Worker

NASOPHARYNGEAL SWAB

- ✓ More invasive
- ✓ Specimen obtained by trained personnel

COLLECTION TIPS

- Insert swab approximately midpoint between nostrils and tragus
- Rotate swab several seconds to absorb secretions
- Not necessary to swab both nostrils if tip is saturated with fluid
- If one nostril is blocked, the same swab can be used in the other nostril
- Place in transport media

ANTERIOR NASAL SWAB

- ✓ Less invasive
- ✓ Less discomfort
- ✓ Specimen can be self-collected with simple instruction
- ✓ Lower risk to health care worker

COLLECTION TIPS

- Insert swab 1.25 cm/.5 inch in the nostril
- Rotate swab up against the nasal wall and let set 10-15 seconds
- Repeat in other nostril
- Place in transport media

MID-TURBINATE SWAB

- ✓ Less invasive
- ✓ Less discomfort
- ✓ Specimen can be self-collected with simple instruction
- ✓ Lower risk to health care worker

COLLECTION TIPS

- Insert swab 2.5 cm/1 inch in the nostril
- Rotate swab up against the nasal wall
- Repeat in other nostril
- Place in transport media

05.30.2024

SALIVA

- ✓ Non-invasive
- ✓ Specimen can be self-collected with simple instruction
- ✓ Lower risk to health care worker

COLLECTION TIPS

- Do not eat, drink or smoke 30 minutes before test
- Spit until saliva reaches the fill line (not bubbles)
- Close the lid tightly and shake for 5 seconds
- Does not need transport media
- Wash your hands

SPUTUM

- ✓ Non-invasive
- ✓ Specimen can be self-collected with simple instruction
- ✓ Educate patient on difference between oral secretions and sputum
- ✓ Lower risk to health care worker

COLLECTION TIPS

- Ideally before any anti-microbial treatment given
- Have patient rinse mouth
- Deep cough and expectorate into a sterile cup
- Screw on cap tightly
- Wash your hands

Key Takeaways – IPC

- Identify/Isolate/Inform
- Hand hygiene before during and after
- PPE – safe donning and doffing
  - Use trained observer
- Gather all supplies needed
  - Have waste basket and sharps container close
- Don’t rush
- Disinfect any items that will be handed off (specimen collection tubes, Biohazard transport bags)
- Use disposable equipment when possible

Key Takeaways – ED

- Remember the mantra of Identify, Isolate, Inform
- Use the UNIVERSAL Symptom and Travel/Exposure screen to help identify patients at risk of a special pathogen
  - Work with your electronic medical record to automate/routinize this – same for every patient, every time
- Masking is a great first step in isolating ANY infectious patient
  - Even if they don't have a special pathogen, they may have something infectious that you don't want transmitted in your ED
- Have a plan, including next steps if screen is positive
  - Where to put the patient (Isolate)
  - Who cares for the patient, and how – PPE, JIT training etc
  - Who do you call for help (Inform)
- Practice, practice, practice – mystery patient drills
- You are not alone!

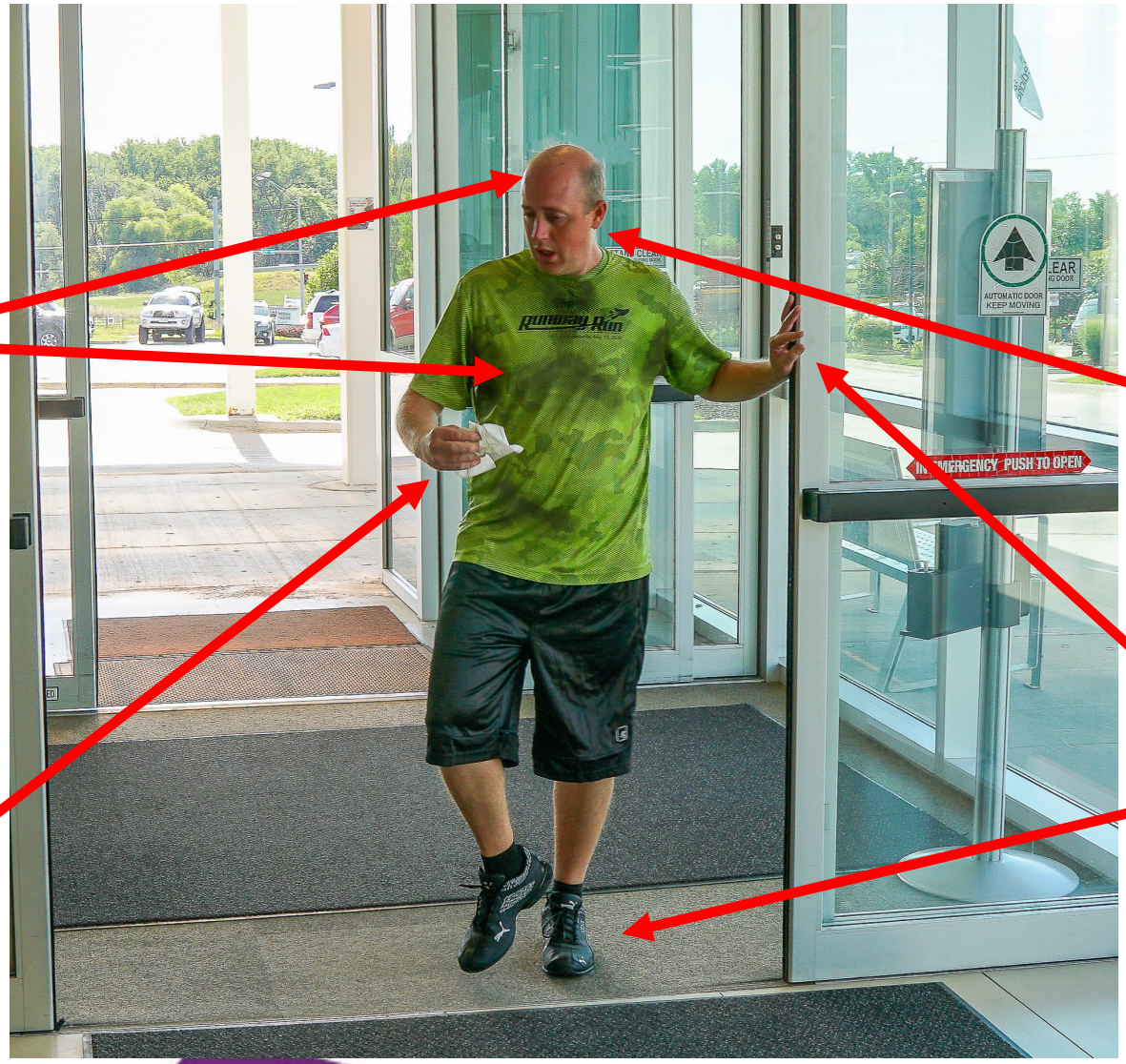
Does This Person Look Infectious?

Fever?

Sweat on skin and clothing

Runny nose?

Facial tissue in hand



Labored breathing?

Breathing through mouth, coughing

Fatigue?

Difficulty standing

Question & Answer

Please submit any questions using the Q&A function on your screen.

Poll Question

Thank you for participating in today's session!

Please take a moment to provide us feedback on this ECHO session by completing our brief survey – please use the link provided in the chat.

A certificate of attendance is available upon completing the survey.

Access Resources & Subscribe to the Podcast

- Podcast version of this session, slide deck, and other resources will be available next week on our website.
  - https://scdp.emory.edu/programs/echo-program/resources.html
- Never miss a session! Subscribe to the **SCDP ECHO Podcast** on Apple, Spotify, Google Podcast, Amazon Music, and other major platforms https://scdp-echo-podcasts.simplecast.com/

Upcoming Sessions

- Please check our website for future sessions
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Thank you!