Frontline Hospital Training for a High Consequence Infectious Disease (HCID)

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Objectives

- Discuss emerging infectious diseases of concern
- Review current preparedness measures in place at national, state, and local levels
- Understand the need to plan and prepare for a HCID
- Discuss the importance of diligence while using Personal Protective Equipment (PPE)
- Review Just-In-Time (JIT) training solutions

Disclaimer

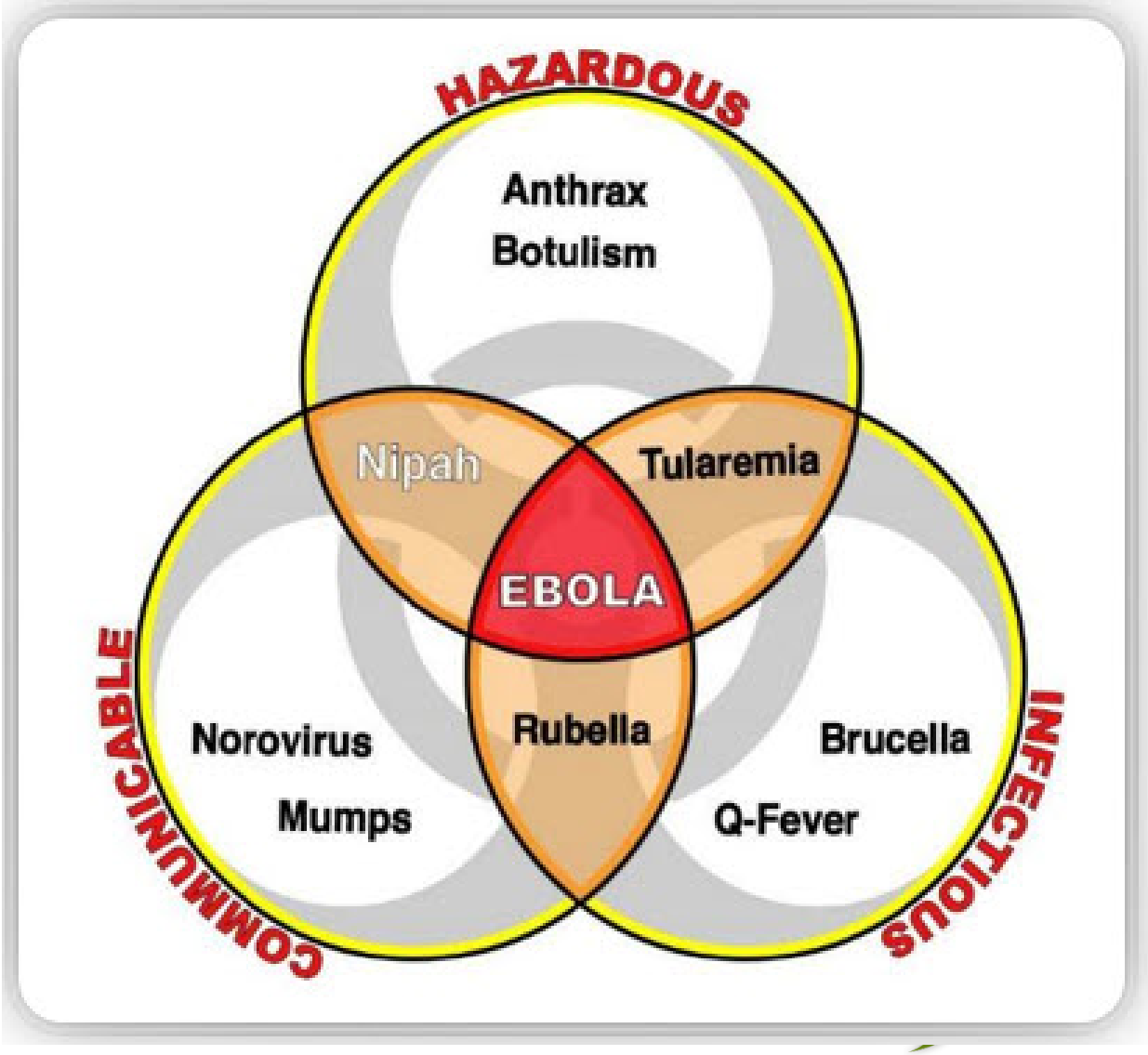
The information presented here was gathered from ASPR TRACIE's Frontline Hospital Planning Guide for Special Pathogens developed to assist frontline facilities to effectively Identify, Isolate, and Inform when a suspected case presents to an acute care facility. In addition information was taken from Los Angeles County EID Frontline Facility training, and the National Ebola Training & Education Center (NETEC) Biopreparedness: Identify, Isolate, Inform.

Current Pathogens of Concern

High Consequence Infectious Diseases (HCID)

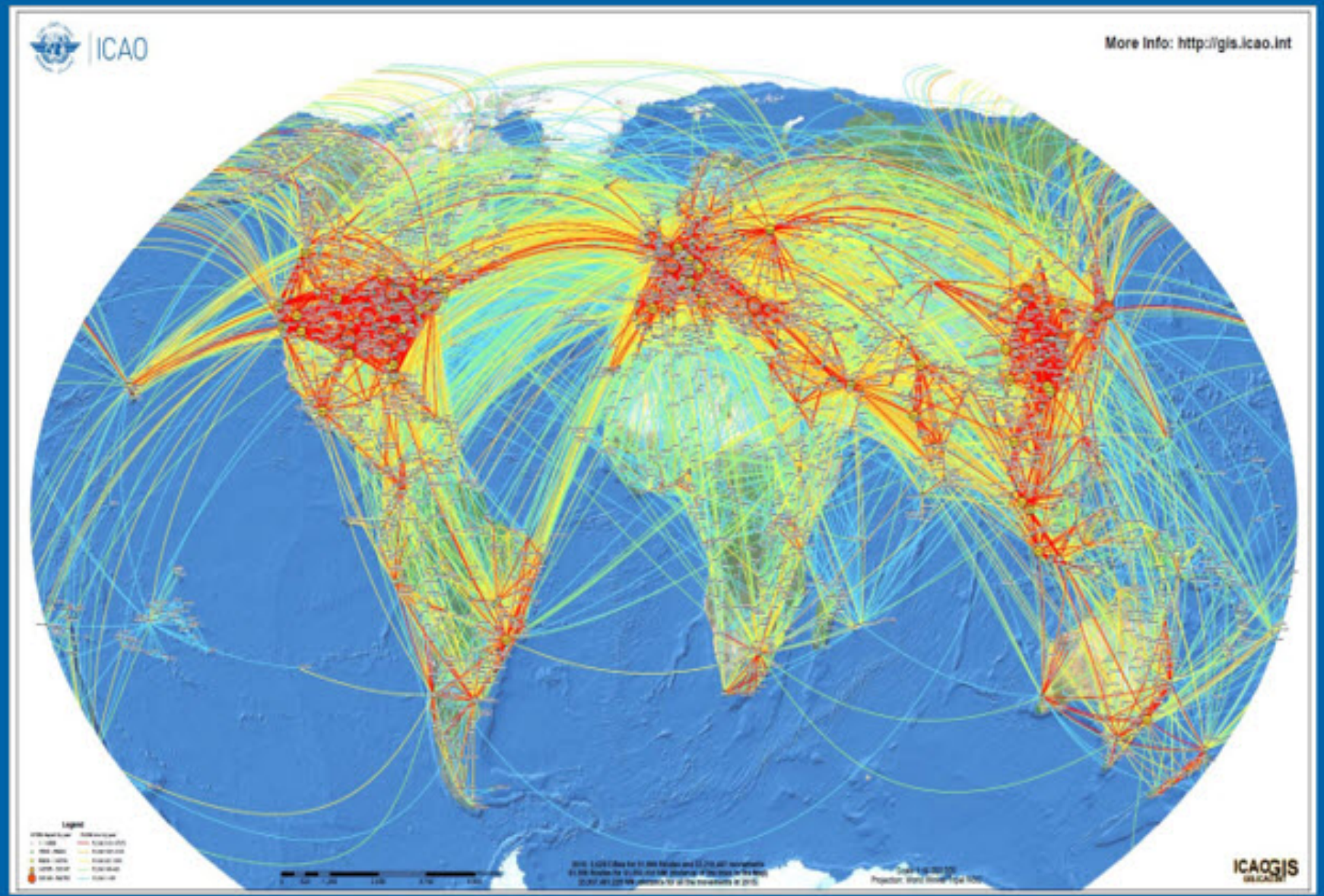
Diseases that are:

- **Recognized in the human host for the first time**
- **Reappear after apparent control or elimination**
- **Infectious, highly hazardous, and communicable**



2017-2020 Special pathogen outbreaks

Global travel means the next special pathogen is a flight away



Mode of Transmission

Contact or Fomites:

- Ebola
- Lassa
- Marburg
- Other VHF
- Variola
- MonkeyPox
- 2019 nCoV ?
- MERS ?
- SARS ?

Droplets:

- Ebola ?
- Marburg ?
- Influenza
- Nipah
- Hendra ?
- MonkeyPox ?
- 2019 nCoV
- MERS
- SARS

Airborne:

- Variola
- 2019 nCoV ?
- MERS ?
- SARS ?

Pathogens that might warrant care in the Biocontainment Care Unit (BCU) or other specialized care area (AIIR):

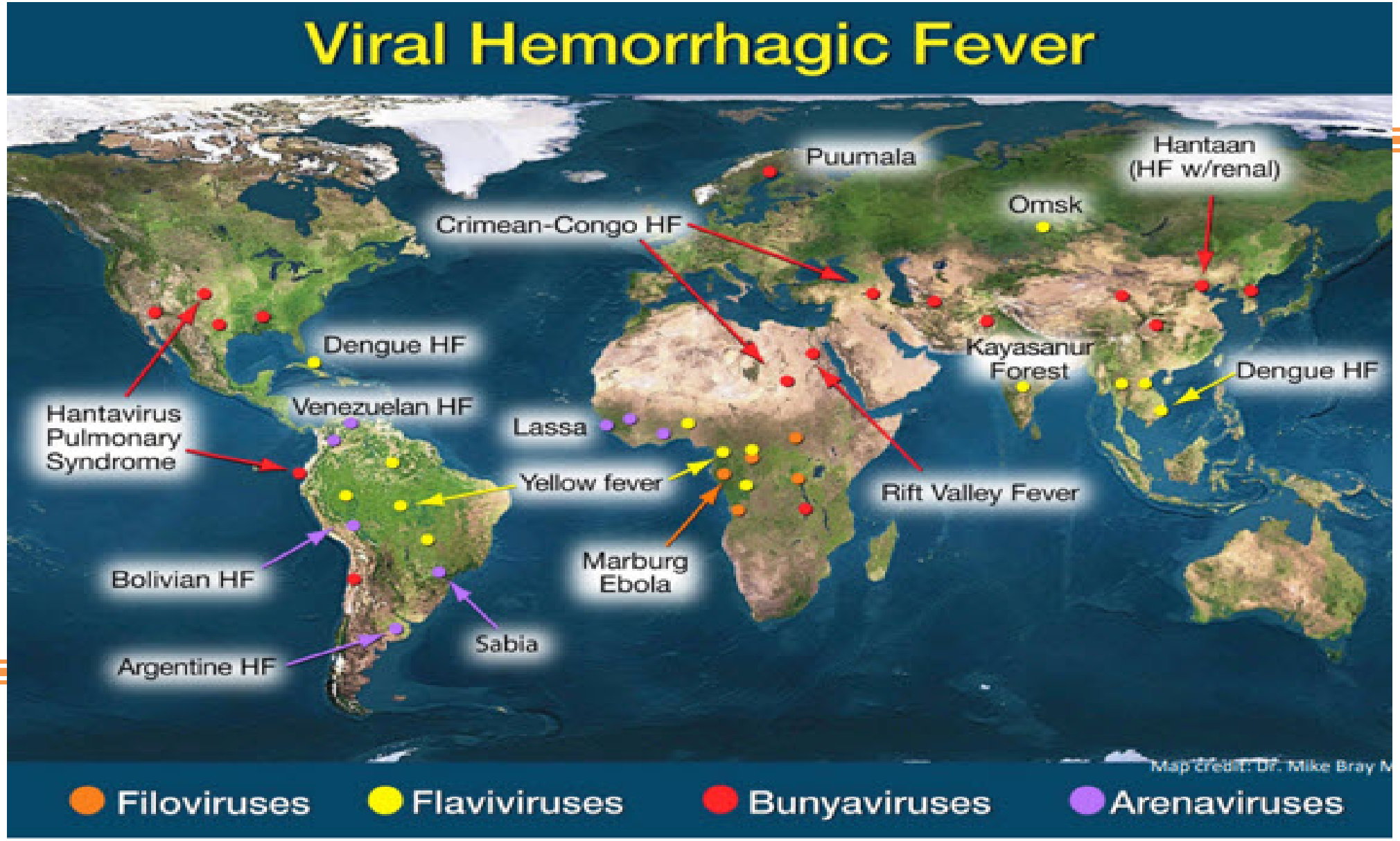
- Viral Hemorrhagic Fever Viruses (VHF) – Ebola virus disease (EVD)
- Airborne Agents Causing Severe Respiratory Syndromes – severe respiratory syndrome (SARS), Middle Eastern respiratory syndrome (MERS), Novel Coronavirus 2019 (2019 nCoV) require an airborne infection isolation room (AIIR)
- Certain Orthopoxviruses – Smallpox, Monkeypox
- Some miscellaneous pathogens – Nipah, Hendra
- Pathogens raising political or assuredness concern – Anthrax, Botulism

Viral hemorrhagic fevers

Filoviruses	Arenaviruses	Bunyaviruses	Flaviviruses
Ebola Marburg	Lassa Lujo Junin Machupo Guanarito Sabia	CCHF Hantaviruses	RSSE CEE TBE Complex Kyasanur Forest Omsk

Red = transmissible from PTP; Green = transmissible only via rodents or arthropod vectors

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019



Source: WRAIR Operational Clinical Infectious Diseases Course, 2016.

VHF Misconceptions

Misconception They all have the same features

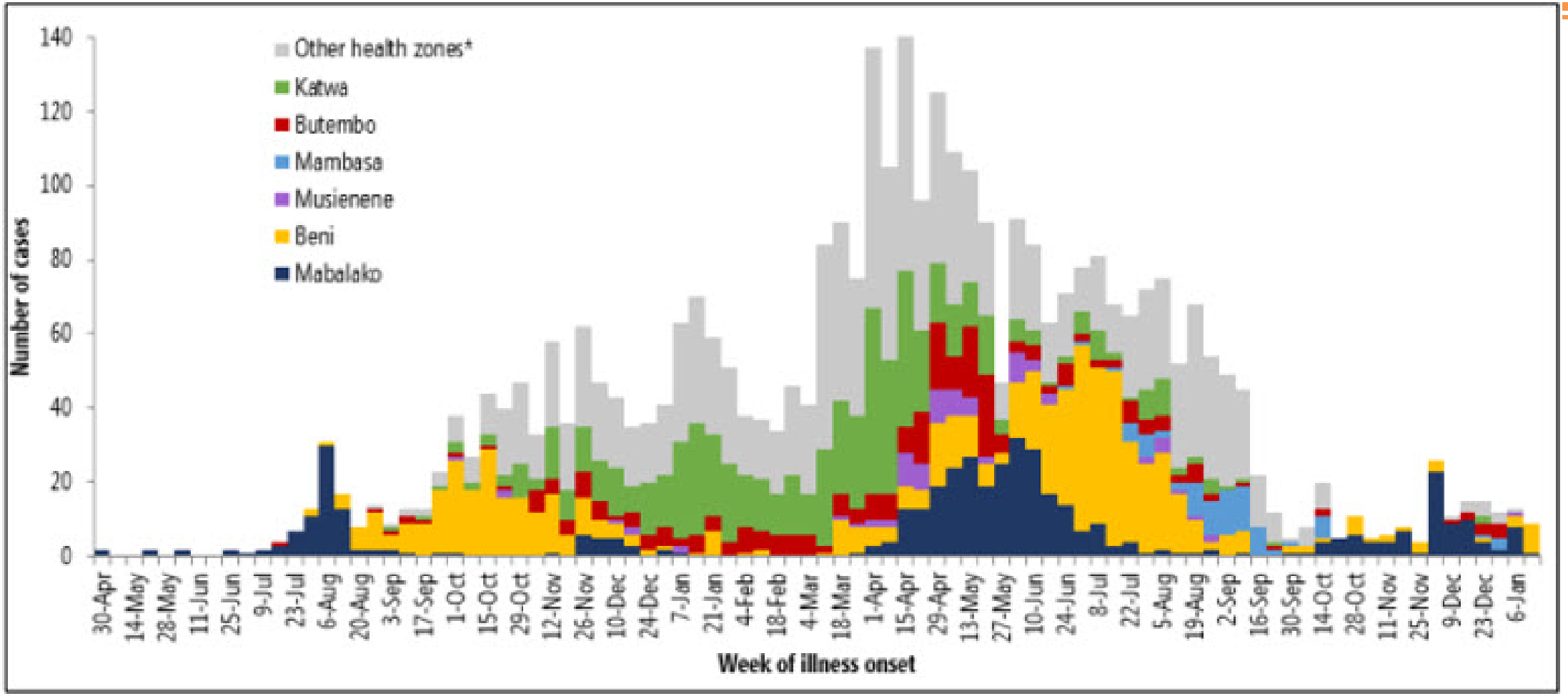
Misconception They all spread easily

Misconception They are easily recognizable

Misconception Bleeding is the primary cause of death

Ebola in the Democratic republic of the Congo (DRC)

Confirmed and probable Ebola virus disease cases by week of illness onset data as of 1-19-2020 by WHO



WHO weekly situation report

(https://www.who.int/publications-detail/ebola-virus-disease-democratic-republic-of-congo-external-situation-report-76-2019)

CDC Ebola Response by the Numbers (as of 1-17-2020)

- 248 permanent CDC staff in DRC and surrounding countries
- 300+ trained and graduated from the DRC Field Epidemiology Training Program
- 189,000+ hours CDC staff have worked in DRC, neighboring countries, and at WHO headquarters
- 139 Million+ travelers screened at health checkpoints in the outbreak area, for signs of illness and at airports and land borders in DRC since the outbreak began
- 265,000+ People received the vaccine for Ebola in DRC

CDC Ebola by the Numbers

(https://www.cdc.gov/vhf/ebola/outbreaks/drc/ebola-response-by-the-numbers.html)

What do we know about Ebola?

- Average mortality rate in Africa is 50%
  - Lack of supportive care and technological medical advancements
  - Resource poor nations
- Spread through direct contact
- Symptoms usually appear 8-10 days after exposure, but the incubation period can span up to 21 days
- People are not infectious until they develop symptoms
- Virus remains persistent even after recovery

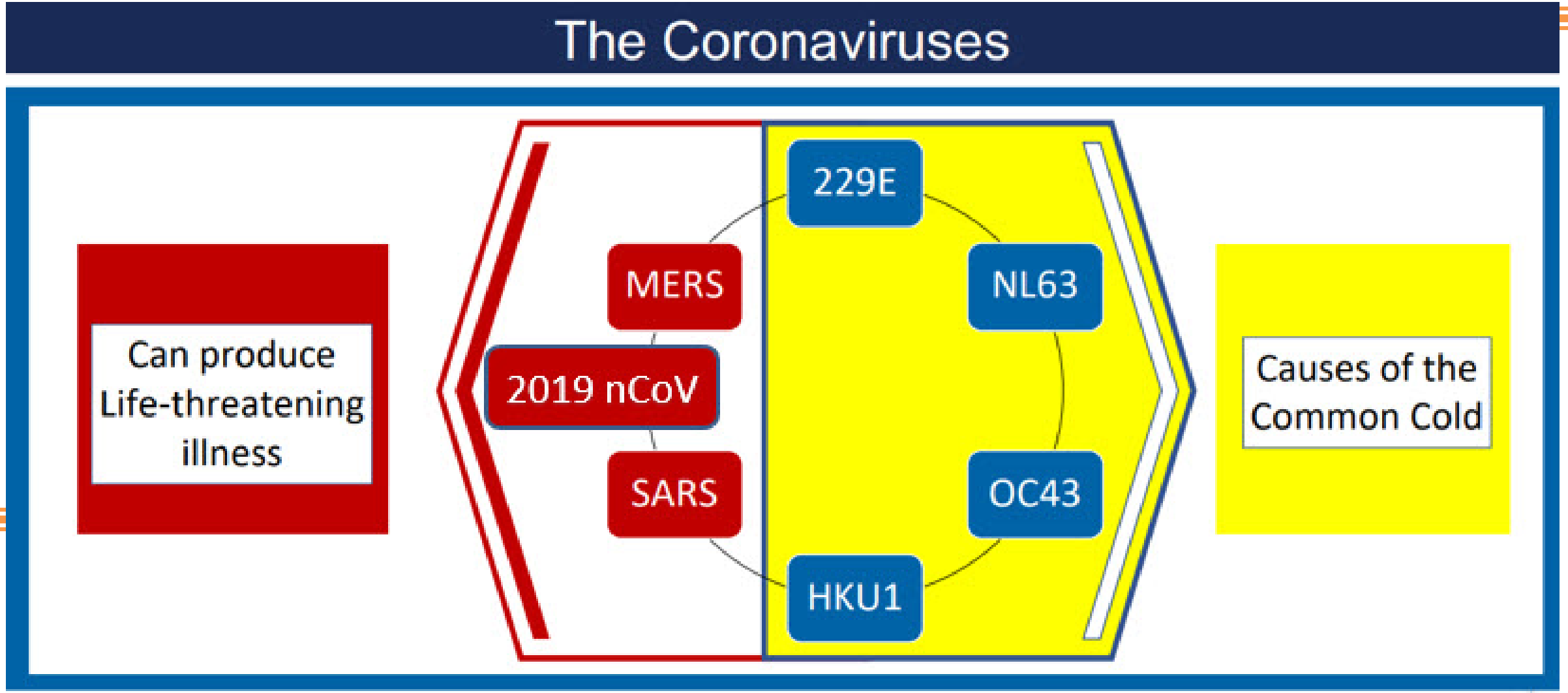
Treatment

- Early rehydration
- Oxygen therapy
- Supportive care
- Antibiotics to treat other infections
- Continuous renal replacement therapy (CRRT)
- Zmapp, Mab114, REGN-EB3
- Preventative – ERVBO vaccine

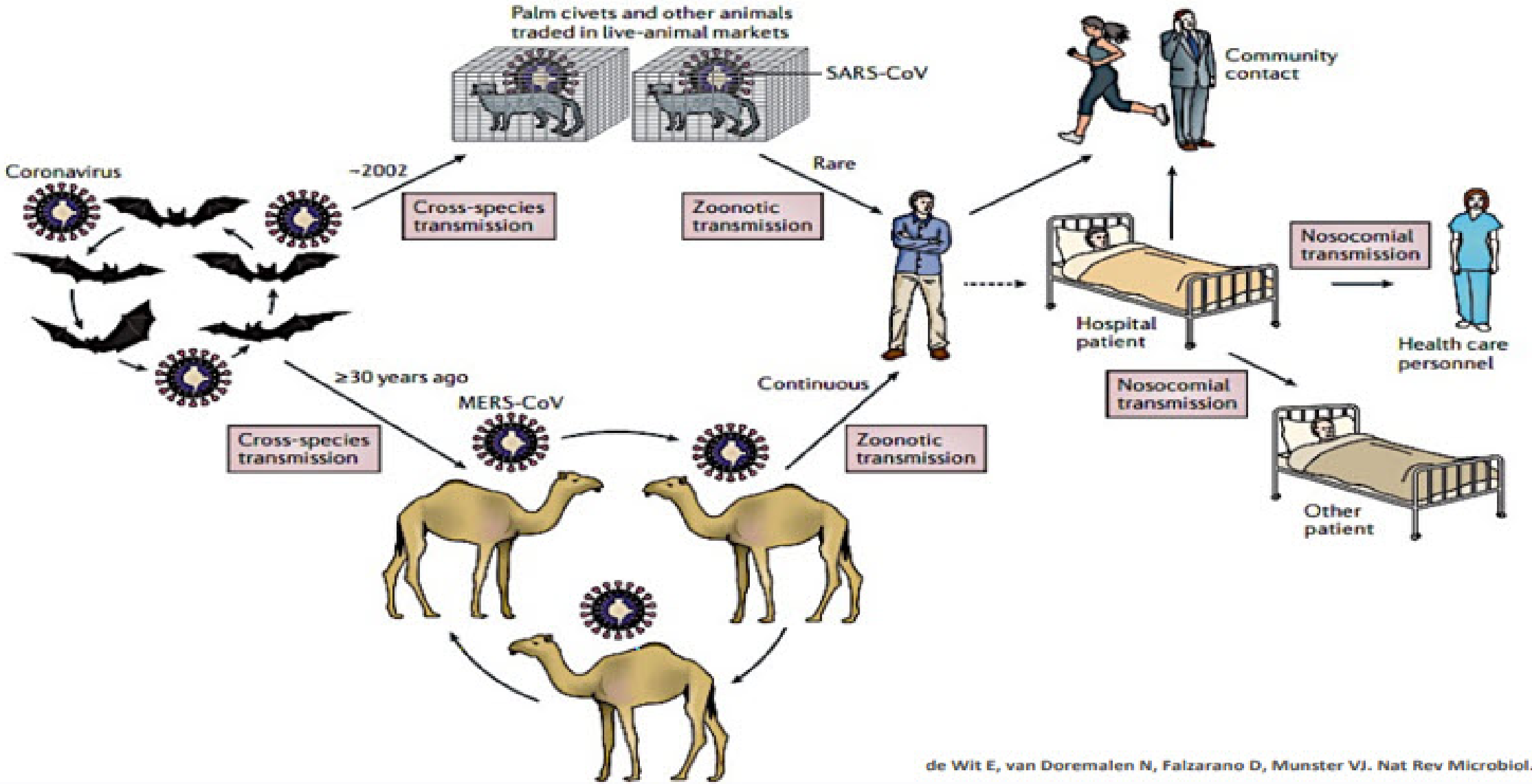
Beyond VHF: Other Special Pathogens

Family	Examples
Coronaviruses	SARS, MERS, 2019 nCoV
Avian & Novel Influenza Viruses	N1H1 (2009), H7N9 (2017)
Heniparviruses	Nipah, Hendra
Orthopoxviruses	Smallpox, Monkeypox

Respiratory Illnesses



Novel Coronavirus Transmission

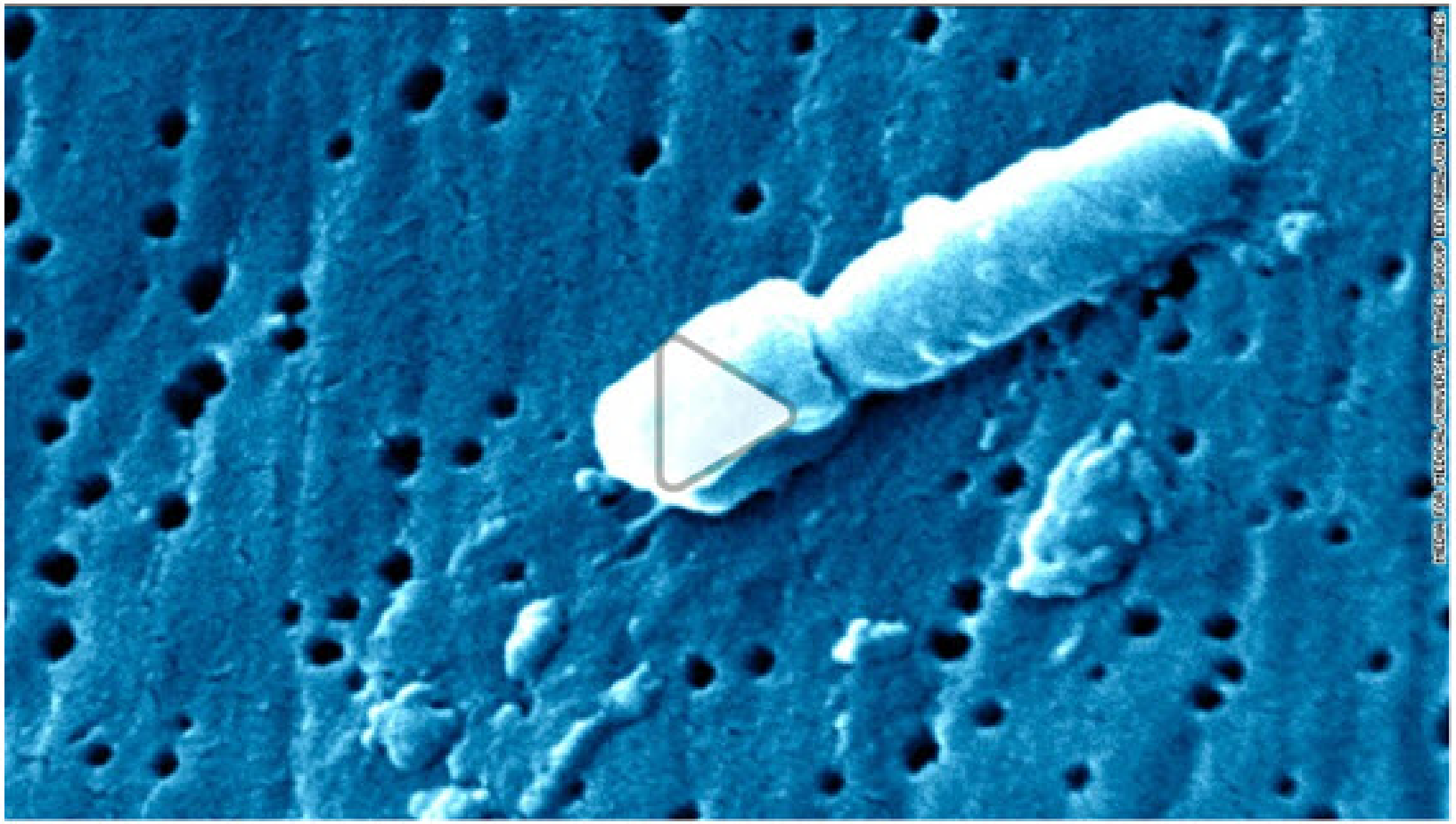


de Wit E, van Doremalen N, Falzarano D, Munster VJ. Nat Rev Microbiol. 2016

A new virus related to SARS is the culprit in China's mysterious pneumonia outbreak, scientists say

By Nectar Gan, CNN

Updated 5:38 AM ET, Thu January 9, 2020



What we are learning about 2019 nCoV

- Person-to-person spread is occurring
- Some healthcare workers in China have been infected
- There is a possibility of transmission from asymptomatic patients
- Although severe and fatal illness has been reported in some patients, many have had milder illness that does not require hospitalization
- CDC has implemented symptom screening of travelers arriving from Wuhan, China in 5 airports (SFO, LAX, JFK, Atlanta-Hartsfield and O'Hare)
- There is no vaccine or specific treatment recommendations
- There are CA patients with travel history to China who have contracted the illness

CDPH website for more information and signage: nCOV2019 - cdph.ca.gov
(https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/nCOV2019.aspx)

Signs and Symptoms 2019 nCoV

Criteria for a Person Under Investigation (PUI) for 2019-nCoV

Patients in the United States who meet the following criteria should be evaluated as a PUI in association with the outbreak of 2019-nCoV in China

Clinical Features	&	Epidemiologic Risk
Fever or signs/symptoms of lower respiratory illness (e.g. cough or shortness of breath)	**AND**	Any person, including health care workers, who has had close contact with a laboratory-confirmed 2019-nCoV patient within 14 days of symptom onset
Fever and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath)	**AND**	A history of travel from **Hubei Province**, China within 14 days of symptom onset
Fever and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization	**AND**	A history of travel from mainland **China** within 14 days of symptom onset

If a PUI is identified, or if a patient's status as a PUI is uncertain, immediately contact your local health department (PDF) (https://www.cdph.ca.gov/Programs/CCLHO/CDPH%20Document%20Library/LHD_CD_Contact_Info_ADA.pdf)

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What is not known yet about 2019 nCoV

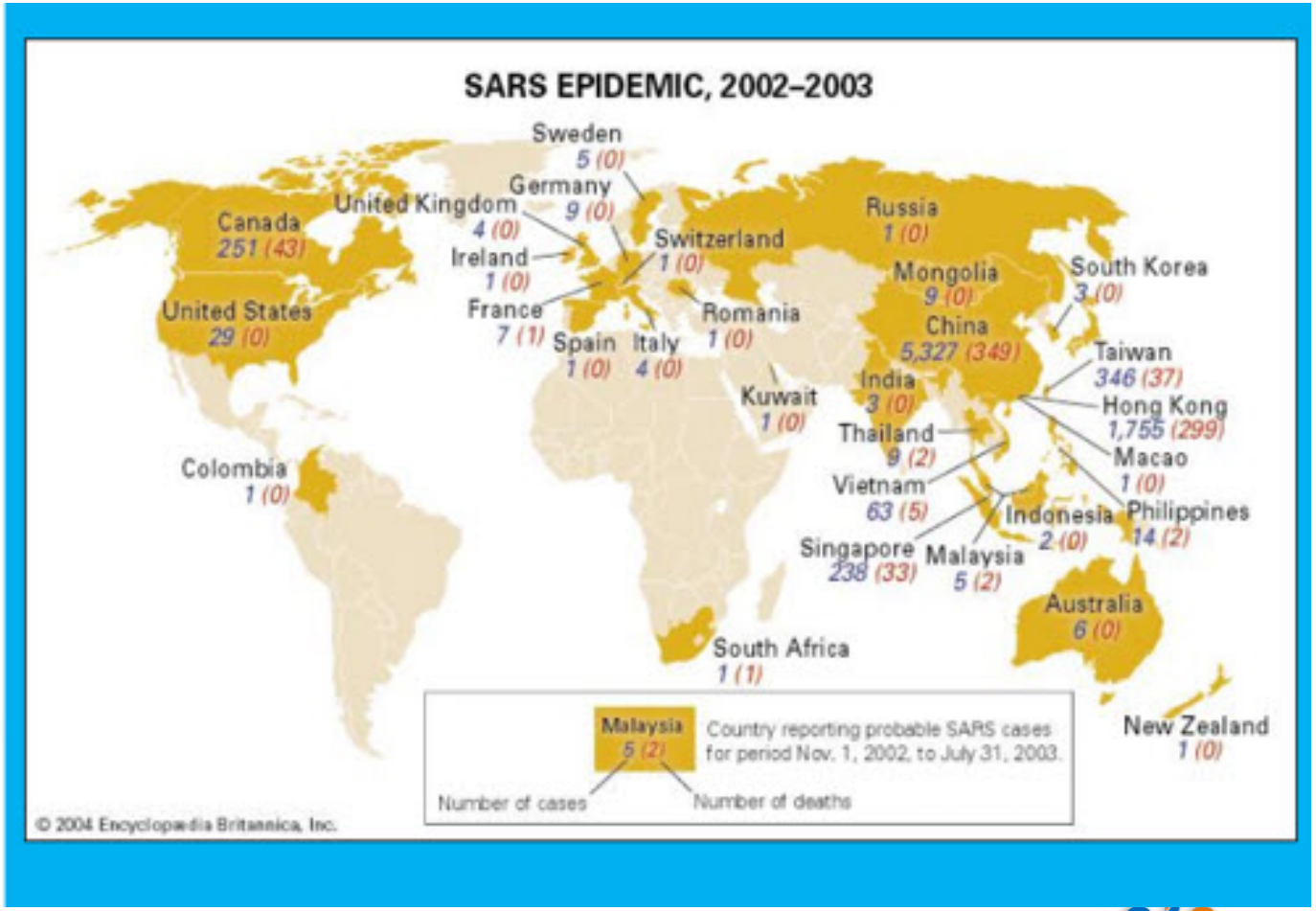
- Attack rate of the virus, or how easily and sustainably the virus spreads from person-to-person
- Incubation period, current recommendations are based on known incubation periods for other coronaviruses of 2-14 days
- Spectrum of clinical illnesses associated with the virus

CDC nC0V-2019 website

(https://www.cdc.gov/coronavirus/2019-ncov/index.html)

Severe Acute respiratory Syndrome (SARS)

- Produces severe lower respiratory tract illness
- Appeared in China in 2002
- Ultimately affected 37 nations, including US & Canada
- No reported cases since 2004
- 8273 total cases recorded
  - 775 deaths
  - 27 US cases (no deaths)
- Overall mortality was 9.6%



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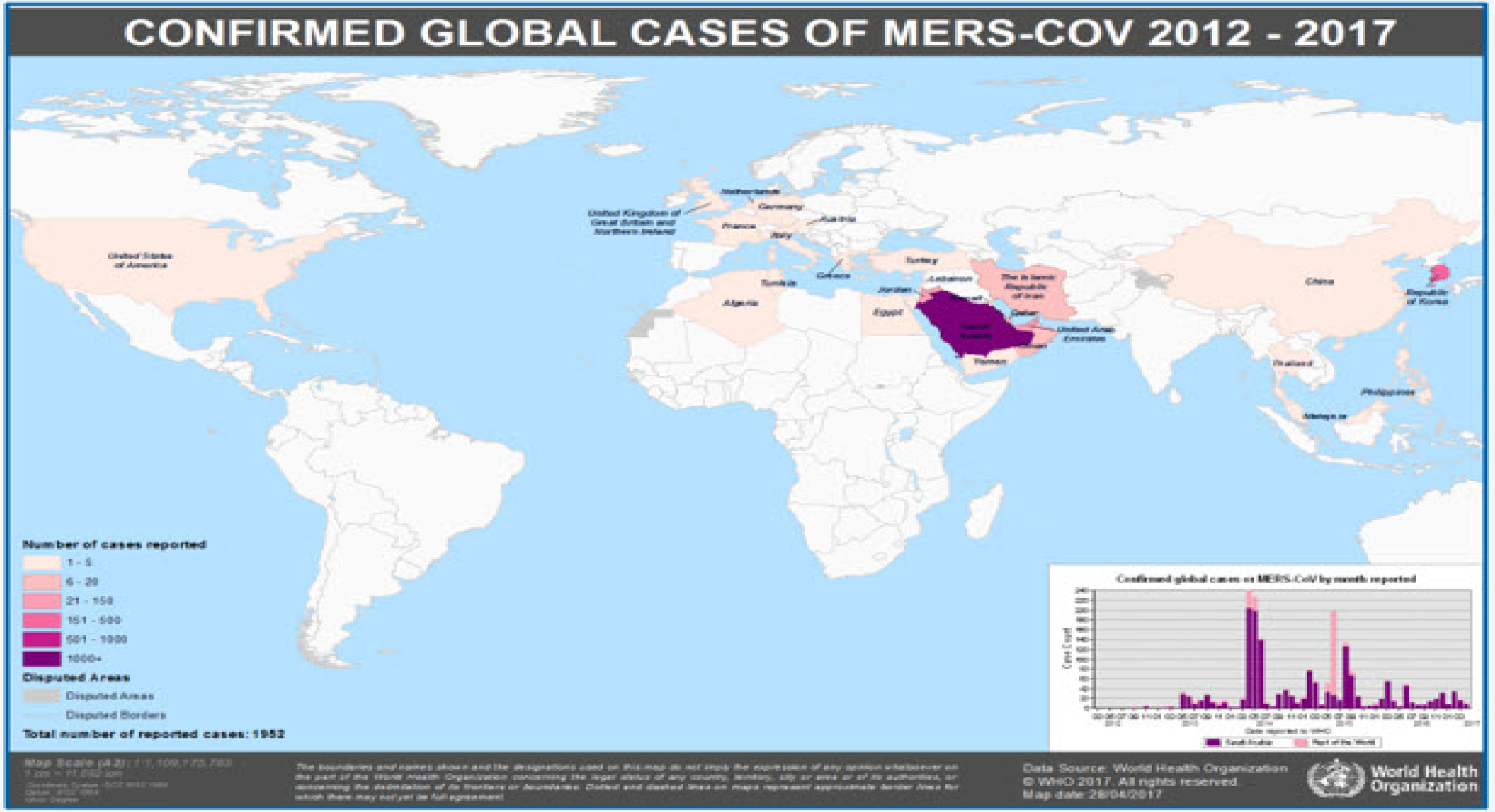
Clinical Manifestations of SARS

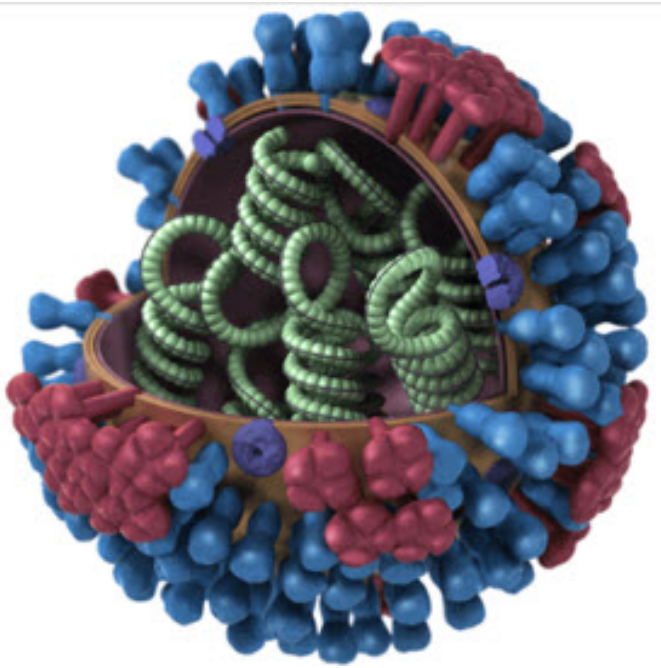
- Incubation period 2-7 days
- Presents with flu-like symptoms with fever > 100.4
- Headache
- Body aches
- Diarrhea
- Pneumonia

MERS



http://www.who.int/csr/disease/coronavirus_infections/maps-epicurves/en/.

Novel Influenza Viruses



- Four types: A, B, C, & D
- Type A & B - seasonal epidemics during winter
- Type C cause mild illness
- Type D affect cattle and not humans
- Influenza A
  - H1N1, H7N9, H5N1, H3N2
  - Linked to flu pandemics: Spanish flu of 1918, H1N1 in 2009

Risk Factors for Novel Influenza Emergence

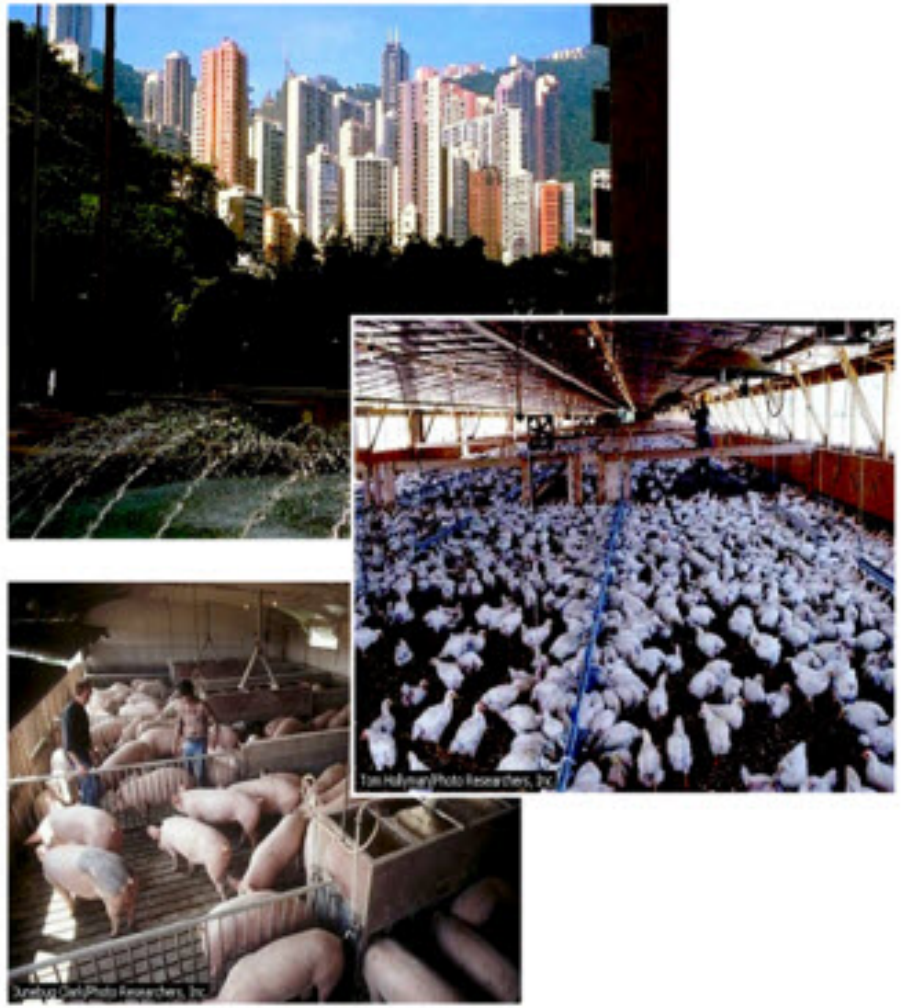
- Pigs harbor human strains

- Pigs harbor avian strains

- Pigs thus serve as “mixing vessels”

- Antigenic shift occurs in the pig

- The fear: a new virus with human affinity and avian mortality



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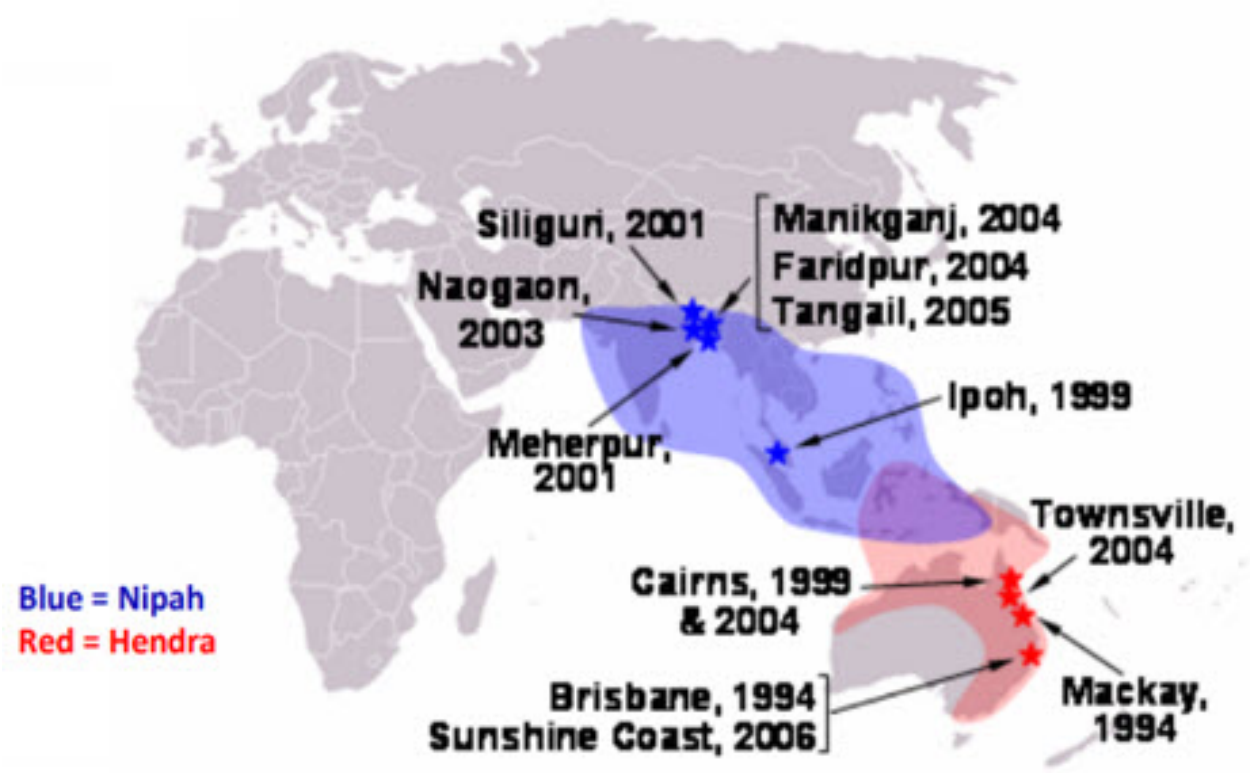
Henipaviruses

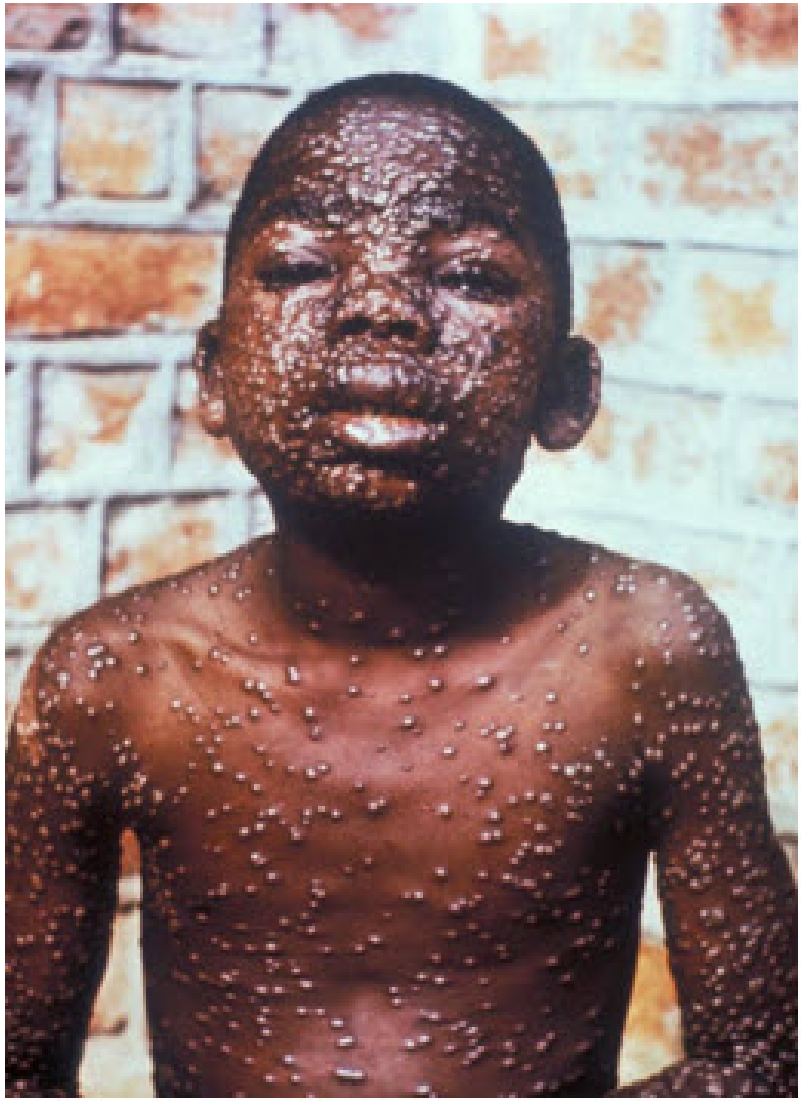
- **Hendra** and **Nipah** Viruses
- Bats are the reservoir
- Incubation period 5-16 days
- Symptoms: Influenza-like
- Causes fatal encephalitis in humans



Nipah

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Orthopoxviruses: Smallpox and Monkeypox



SmallPox

- Dates back to Egyptian Empire – 3rd century BC
- Last naturally occurring outbreak in 1977
- Declared eradicated since 1980 due to worldwide vaccination campaign to eradicate the disease

MonkeyPox

- Endemic to Central and West Africa
- Incubation period 7-14 days
- S/S begins with fever, headache, muscle aches, fatigue, swollen lymph nodes; rash develops 1-3 days after fever onset
- Transmission: contact & droplets
- 47 cases in the United States in a 2003 outbreak

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Disease X (aka The Andromeda Strain)

Patients with unknown diseases could be admitted to a Biocontainment Unit

At the time of their initial outbreaks, these could have been "Andromeda Strains"

- Nipah
- Hendra
- SARS
- MERS
- Sin Nombre
- Many others

2019 nCoV

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Preparedness Measures at the National, State, Local, and Facility Levels

Public Health Preparations for Ebola Virus Disease

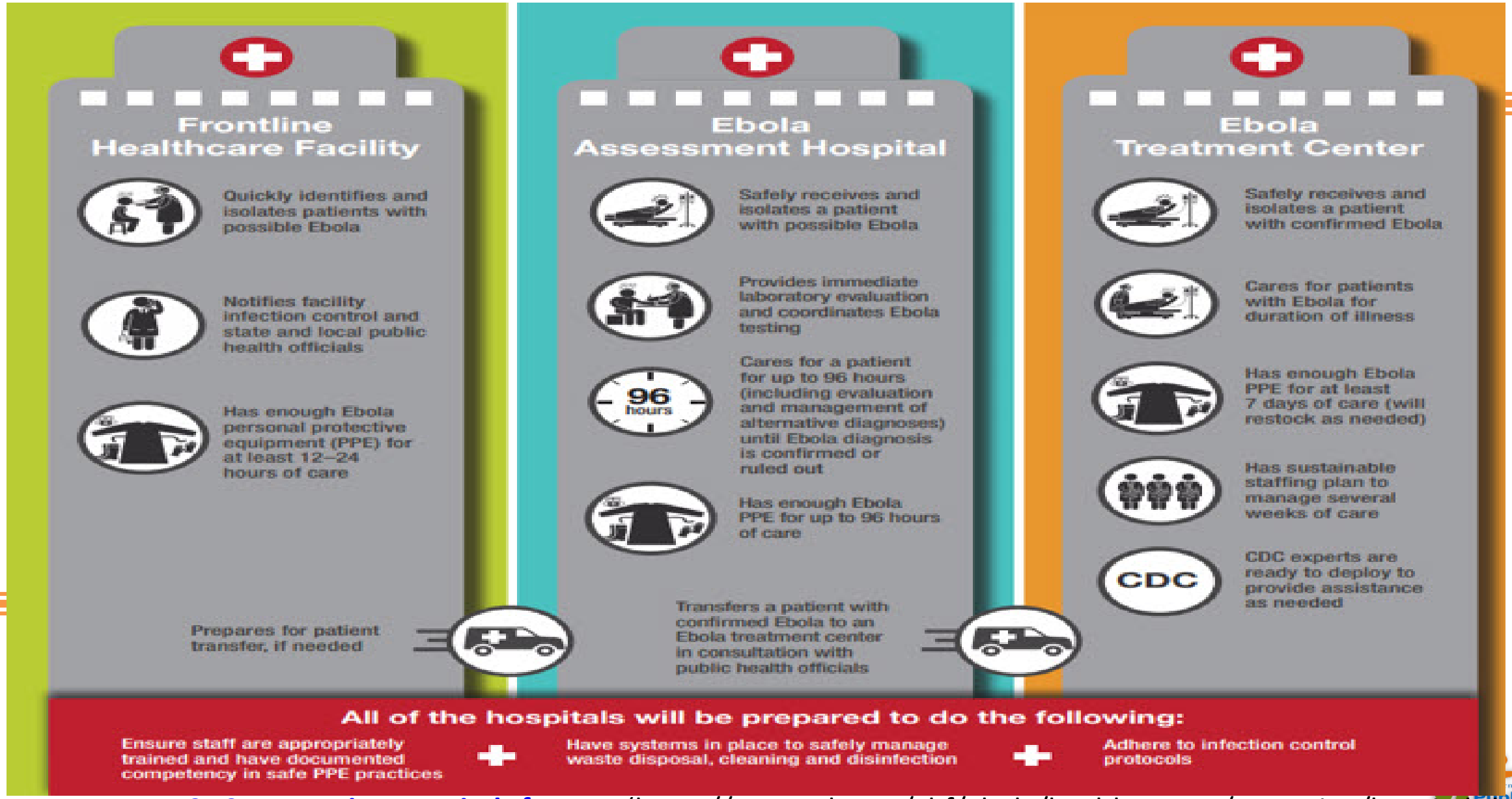
- The CDC is ready to institute travel screening if they determine a risk exists for patients to travel from an outbreak area to the US (as we have seen with 2019 nCoV)
  - Airports have been identified and asked to be prepared to screen
  - State and Local public health have also been asked to be ready to screen
- Humanitarian workers (non-governmental organizations or NGO's) are often healthcare workers with a potential to contract the illness
  - NGO workers are vaccinated prior to entering an outbreak area

Public Health Preparations for Ebola Virus Disease

- NGO's are required to notify the CDC when a worker returns from an outbreak area to the US
  - The CDC notifies state public health, who then notifies local public health to monitor the worker
  - The worker is asked to notify local public health if they become ill
    - Local public health sends the worker to the facility best prepared to care for them

CDC Three-Tiered Framework

HEALTHCARE-ASSOCIATED INFECTIONS PROGRAM



[CDC - Preparing Hospitals for EVD](https://www.cdc.gov/vhf/ebola/healthcare-us/preparing/hospitals.html) (https://www.cdc.gov/vhf/ebola/healthcare-us/preparing/hospitals.html)

Resources in California

Regional Ebola Treatment Center (RETC)

- Cedars-Sinai Medical Center
- Federal Region IX: California, Arizona, Nevada, Hawaii, Guam, Mariana Islands, Samoa, Palau, Micronesia, Marshall Islands

Ebola Treatment Center (ETC) – all are also EAH

- 4 Hospitals are prepared to care for a HCID patient through recovery
  - 2 in Southern California and 2 in Northern California

Ebola Assessment Hospital (EAH)

- 4 Hospitals are prepared to care for a HCID patient for 96 hours
  - 2 in Southern, 1 in Central, and 1 in Northern California

Local Public Health's Role in a HCID Response

Activation and Coordination

- Notifies the State and CDC
- Conducts a series of conference calls
- With CDPH coordinates patient destination
- Provides situational awareness among stakeholders
- Conducts an epidemiologic interview
- Does contact tracing
- May do healthcare worker monitoring
- Actions and recommendations determined on a case-by-case

ONLY Local Pubic Health can initiate placement of a PUI

Incident management Planning considerations

Hospital Command Center (HCC)

- Follow Hospital Incident Command System (HICS) structure
- Customize HICS depending on the needs of the incident
- Always use the Three C's
  - Communication
  - Coordination
  - Collaboration
- What are your triggers to activate incident command?

Surge Incident Strategies

- Consider how many patients can be handled at once for screening or inpatient treatment – 2? 5? 10? patients
- Identify surge spaces
  - Closed but functional patient unit, designated inpatient unit, cohorting
  - Pop up space “medical tents”
  - Managing triage/waiting areas: segregation of potentially infectious patients from others

Internal Coordination and Collaboration

- Emergency management/Safety
- Administration
- House supervisor
- Nurse leaders
- Infection Prevention
- Occupational health
- Labor unions
- Bioethics
- Security

Frontline Facility Must be able to:

Identify, Isolate, & Inform

&

Prepare to provide care for 8-12 hours

EMTALA Obligations

Frontline hospitals must provide:

- A medical screening examination (MSE)
- Stabilizing treatment within the hospital's capability and capacity
  - May include: Managing critically ill patients that require high-level care

Identify – Entry Screening

- Consider all points of entry, e.g., valet parking, clinics
- Encourage self identification
  - Post signs
  - Instructional videos in the waiting area
  - Hand hygiene stations and masks
- Who contacts the patient first?
- Incorporate screening tools in electronic health medical record
  - How does it flag clinician
- Clinical symptoms, then exposure history
  - Do you have a cough, fever, or rash?
  - If yes MASK THE PATIENT and hand hygiene

Critical First Step with Respiratory Illness

- What is the very first step?

Exposure History

Travel screen all patients all the time at all points of entry!

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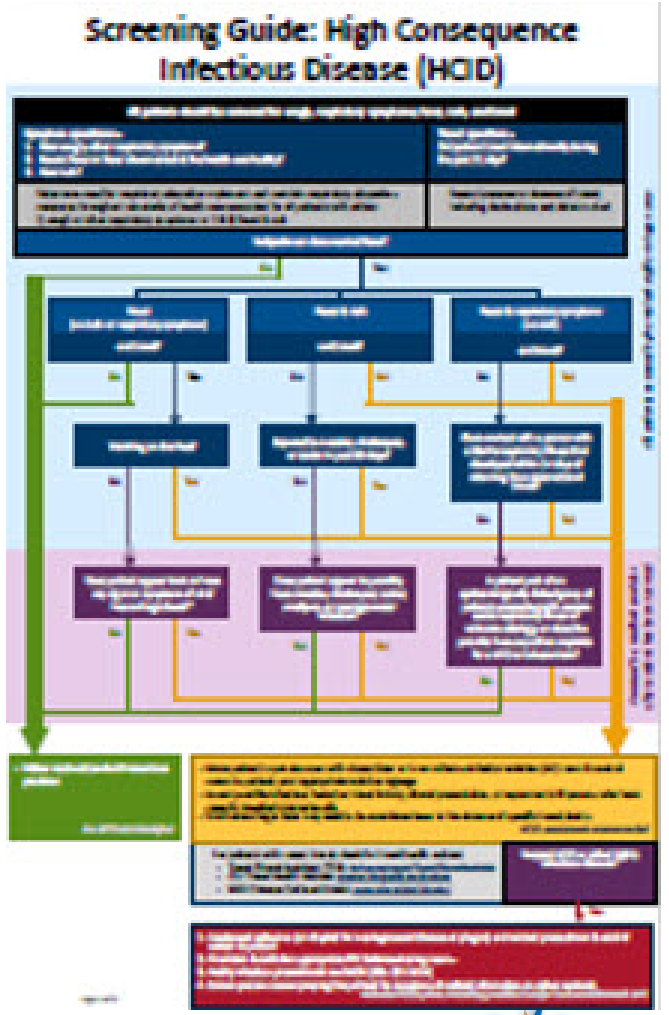
ED Work Flow

- Does your ED work flow allow for rapid identification of a potential communicable disease?
- Sample Algorithms
  - CDC - EVD Algorithm (PDF) (https://www.cdc.gov/vhf/ebola/pdf/ed-algorithm-management-patients-possible-ebola.pdf)
  - MN DPH - HCID Algorithm (PDF) (https://www.health.state.mn.us/diseases/hcid/hcidscreen.pdf)



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Isolate

- What is the process for the patient to be isolated?
  - What is the route to the isolation room?
  - Who is isolating the patient?
- Where is the patient being isolated?
- How are you preparing the patient?
- How are you preparing the location?

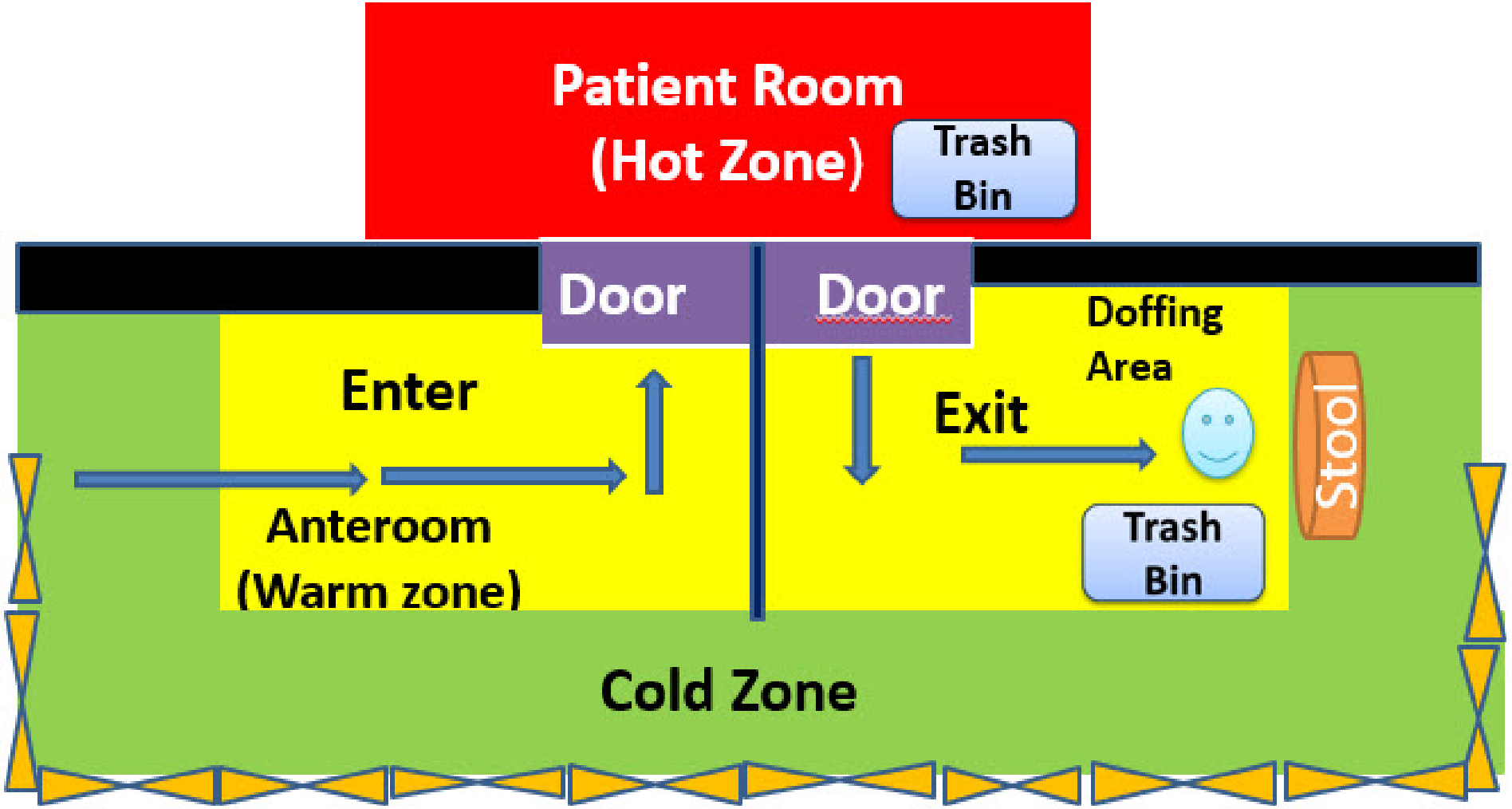
Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Pre-Identified Room

Considerations

- Negative pressure room with private bathroom
- Location – minimal foot traffic
- Ingress & egress
- Warm & cold zones
- Security

Visually inspect PPE before exiting room
Anteroom nurse should assist with visualization



Inform

- When are you going to inform?
- Who is doing the informing?
- Who are you going to inform?

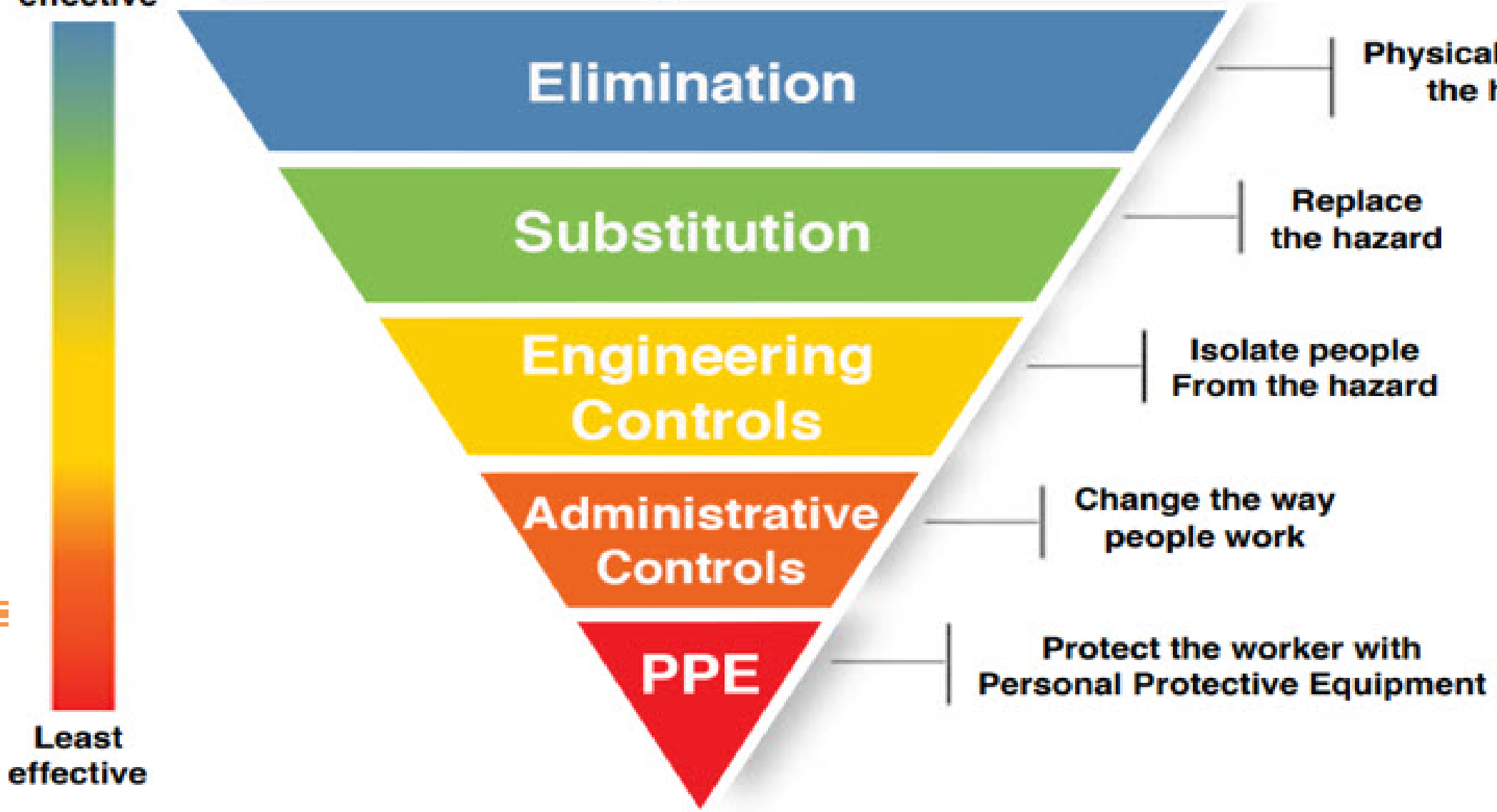
Internal Notification

External Notification to Public Health Partners

Local Health Departments (PDF)
(https://www.cdph.ca.gov/Programs/CCLHO/CDPH%20Document%20Library/LHD_CD_Contact_Info_ADA.pdf)

Principles of Personal Protective Equipment (PPE)

Hierarchy of Controls



Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Personal Protective Equipment (PPE)

Type of Precautions	PPE
Standard	Gloves, gown, surgical mask, goggles or face shield (exact ensemble determined by the type of clinical interaction with the patient and the patient's signs and symptoms
Contact	Fluid resistant gown, gloves
Droplet	Surgical mask, eye protection (not required but recommended by most sources)
Airborne	Fit-tested N95 or equivalent or higher respirator or powered air-purifying respirator (PAPR)

PPE recommendations for 2019 nCoV

- Use Standard, Contact and Airborne Precautions
- Airborne Isolation Room
- Gloves
- Fluid resistant gown
- Face shield
- Fit tested N95 mask or PAPR
  PAPR for high risk procedures as per the ATD standard CA ATD Standard (PDF)
  (https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/CDPH%20Document%20Library/ATD-Guidance.pdf)

Key Principles When Using PPE for EVD

- Facilities may and do differ in the types and brands of PPE used
- What's important is that the PPE must be effective, and procedures for donning and doffing must done in such a way that the healthcare worker is protected and not exposed to any contamination.
- Choose appropriate PPE based on patient's clinical status.

Dry - Person Under Investigation (PUI): Ebola infection not confirmed, clinically stable patient without vomiting, diarrhea, or bleeding.

Wet - Confirmed Ebola patient or a PUI with vomiting, diarrhea, or bleeding, or with condition warranting invasive or aerosol-generating procedure.

PPE for Screening and Triage Nurse for EVD

No Physical Contact

- N95 mask
- Gloves
- Maintain safe distance of at least 3 feet or more

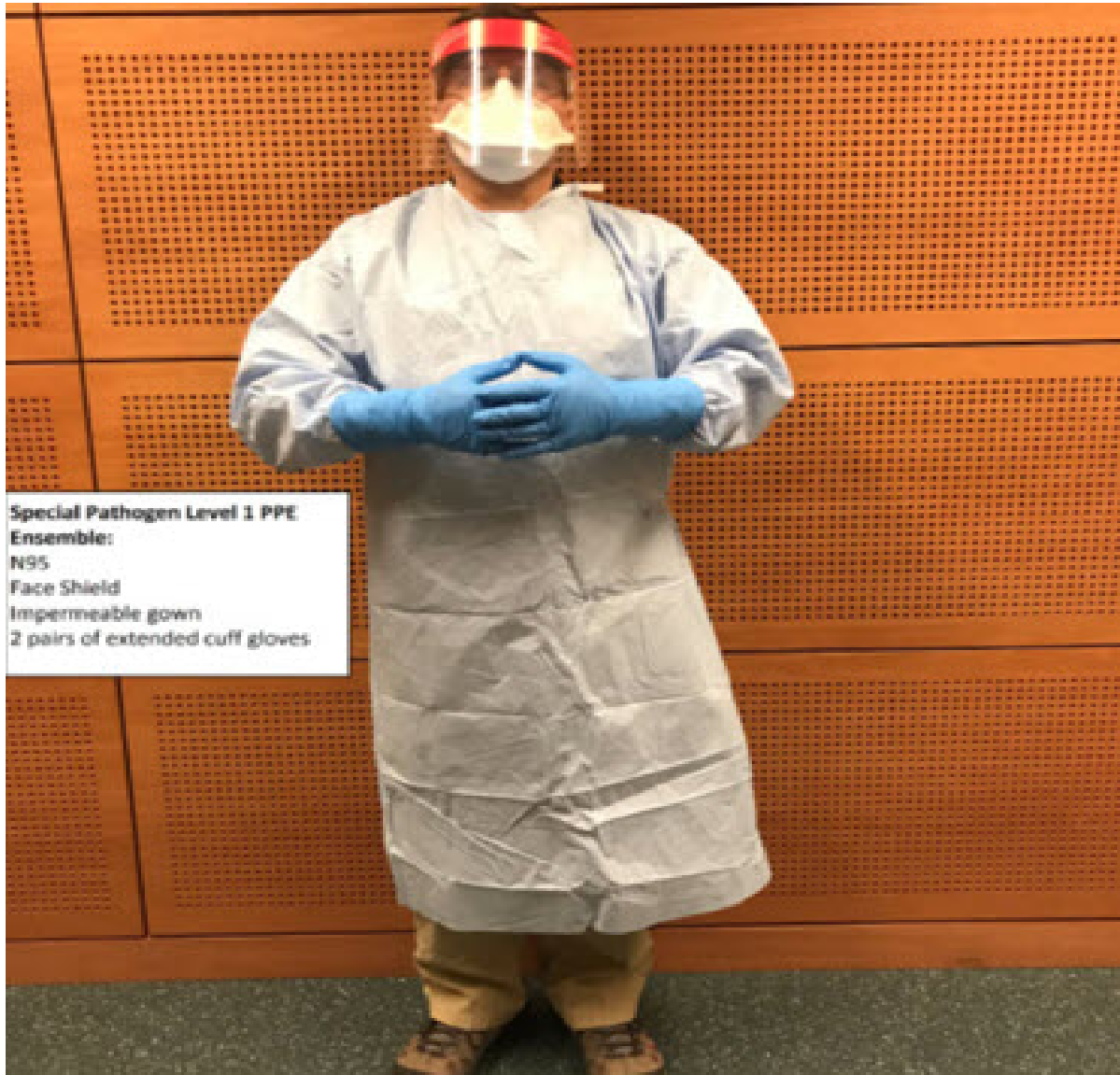
Physical Contact

- *Special Pathogen Level 1 PPE Ensemble*

Special Pathogen LEVEL 1

- Fit tested N95 mask
- Fluid resistant gown that extends to mid-calf
- Nitrile gloves with extended cuffs – 2 pairs
- Face shield
- Consider boot covers and head cover

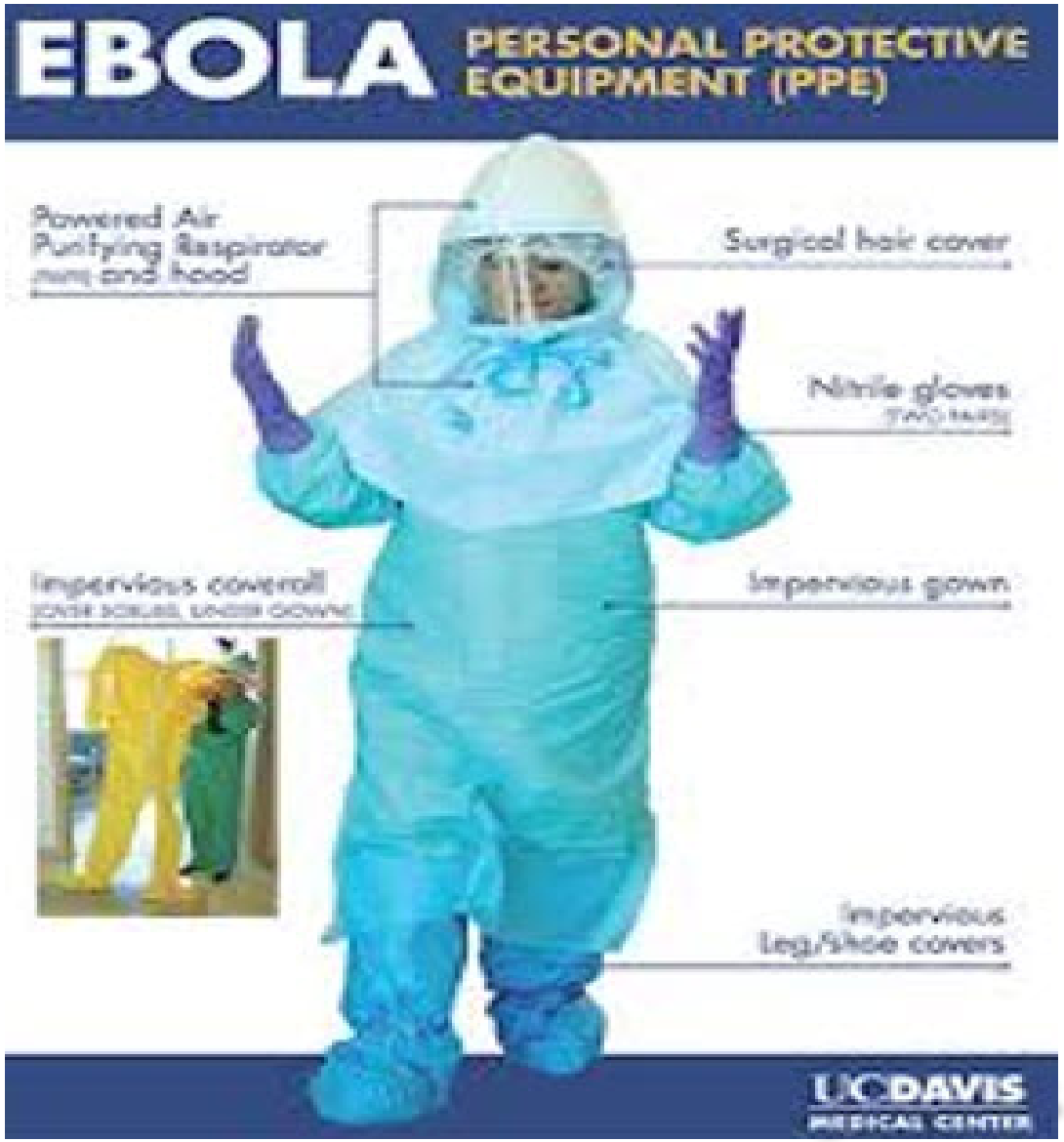
DRY EVD PPE



Special Pathogen LEVEL 2

- PAPR with a full face shield and shroud
- Single use fluid-impermeable gown that extends to at least mid-calf OR coverall without integrated hood
- At least two pairs of single use, disposable gloves; outer gloves should have extended cuffs
- Single use fluid-impermeable apron that covers the torso to mid-calf
- Single use impermeable boot covers that extend to at least mid-calf OR single use impermeable shoe covers if the coverall has integrated socks

WET VHF PPE



Trained Observer

You should have a Trained Observer provide safety oversight in doffing procedures

The Trained Observer:

- Leads, protects, and guides others through the process
- Reads checklist and makes sure steps are followed correctly

Hand sanitize after each doffing step

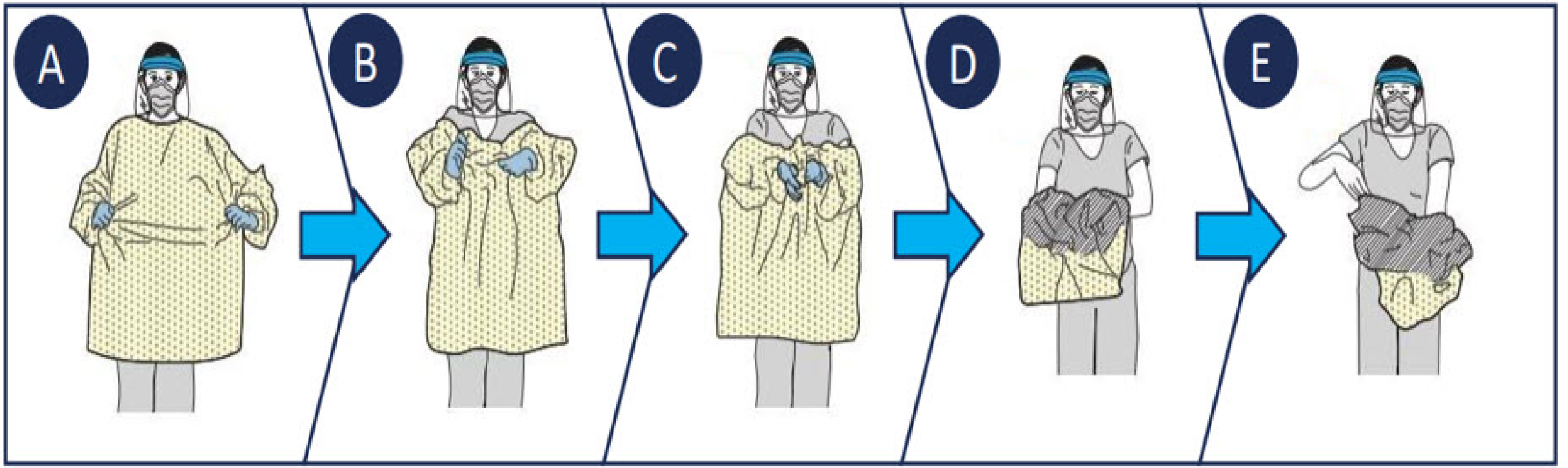
Doffing PPE must be slow, deliberate, and methodical

Visually inspect PPE for gross contaminants before exiting patient room

Doffing must be done in designated area

Use Beak Method to remove gloves

Trained observer should be in PPE



This is a good demonstration of removing your gown and outer gloves together.

The face and eye protection is staying on in cases where removing the gown may cause a splash or an aerosolization of contaminated materials.

Source: Personal Protective Equipment and the Role of a Trained Observer, NETEC

Frontline Facilities should have enough PPE for 8-12 hours of care

CDC Estimated PPE Needed for Healthcare Facilities

(https://www.cdc.gov/vhf/ebola/healthcare-us/ppe/calculator.html)

Staffing Considerations

- Team composition
- Training
- Limit the number of HCWs involved in direct patient care
- Log personnel going in and out of the room

Transfer

- Patient preparation
- Transport team
- Route
- Patient loading area
- Security
- Hand off

Waste management and Decontamination

Category A infectious substance definition

Is an untreated substance that if exposure to it occurs during transportation is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals

Category B infectious substance definition

Is a substance not in a form that is generally capable of causing permanent disability or life-threatening or fatal disease in otherwise healthy humans or animals when exposure to it occurs

Waste that meets the definition for Category A Infectious Substance must comply with the **DOT Hazardous Materials Regulations (HMR; 49 CFR, Parts 171- 180)**

https://www.phmsa.dot.gov/transporting-infectious-substances/transporting-infectious-substances-overview

Inactivating Category A waste = rendering it non-infectious

Methods for inactivating Category A Infected Substance Waste:

- **Autoclaving**
- **Incineration**
- **Chemical Treatment**

NOTE: A procedure for **chemical inactivation** has **not been standardized.** If using chemical treatment, consider worker safety issues, as well as the potential for triggering other federal safety regulations

NOTE: Inactivation or incineration of category A infectious substance may be subject to local and state regulations in addition to Federal regulations

Autoclaves used to inactivate Category A infected substance:

- Should be designed and validated for that particular purpose.
- Category A infected substance should not be inactivated in an autoclave that is used for processing reusable medical devices.

http://www.aami.org/news/2014/102314_Press_Multisociety_Statement_on_Processing_Biohazardous_Medical_Waste.html

Category B Waste Disposal

- Dry solid waste (e.g., used gloves, dressings), should be collected in biohazard bags for disposal as regulated medical waste
- Waste that is saturated with blood or body fluids should be collected in leak-proof biohazard bags or containers
- Sharp items such as used needles or scalpel blades should be collected in puncture-resistant sharps containers
- Excretions may be poured down the toilet-Toilet lid should be closed before flushing to avoid aerosol generation

https://www.cdc.gov/coronavirus/mers/hcp/air-transport.html

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Packaging category A Waste for Off-Site Inactivation

A general rule

All waste generated during the care of patients infected with a disease that leads to the generation of Category A infected substance waste must be triple packed in a:

- Primary leak proof container
- Secondary leak proof container
- Rigid leak proof container

NOTE: There should be no infectious material on the outside of the containers and each package must be able to contain the contents without rupture or leakage
49 CFR 173.24a (b)

NOTE: The packaging of category A infectious substance waste may be subject to local and state regulations in addition to Federal regulations

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Tips For Waste Management

- Place the container close to where the waste is being generated
- Don't fill waste containers more than ¾ full
- Be cautious to avoid sharps being inadvertently placed in the waste container
- Place waste gently into the container to prevent aerosolization of the contents
- Never compress waste to make more room

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Bag Closure Methods

The closure method should comply with local or state regulations and be such that if the bag is inverted, it will not leak

Use a method that will not tear or puncture the bag

- Balloon knot
- Gooseneck and taped
- **Do not use the Bunny Ears method**

Balloon knot

Gooseneck

Bunny Ears

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Sequestering Waste

If a Category A condition is ruled out:	Waste can be handled according to procedures in compliance with local waste management ordinances
If a Category A condition is confirmed:	Follow procedures for Category A Infectious Substance Waste management

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Liquid Waste Management

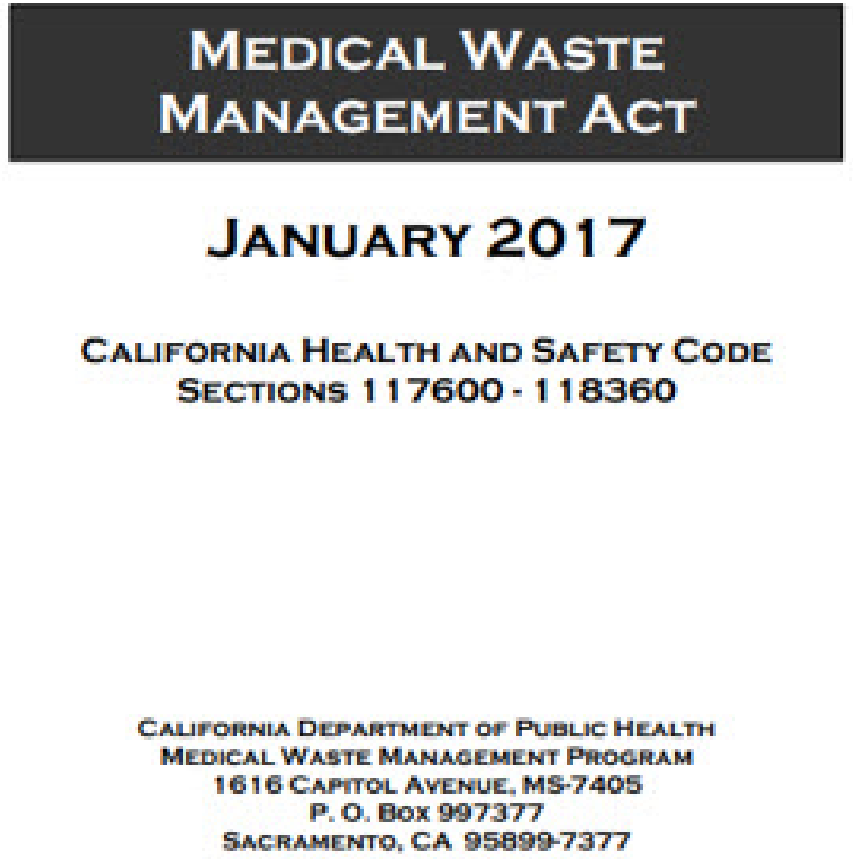
- If there is no toilet in the patient room, a covered bedside commode
- Minimize the risk of spills by adding solidifier to the contents and dispose of as solid waste

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

CA Medical Waste Management Act

Health & Safety Code:

CA Medical Waste Management Act (PDF)
(https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/MedicalWaste/MedicalWasteManagementAct.pdf)

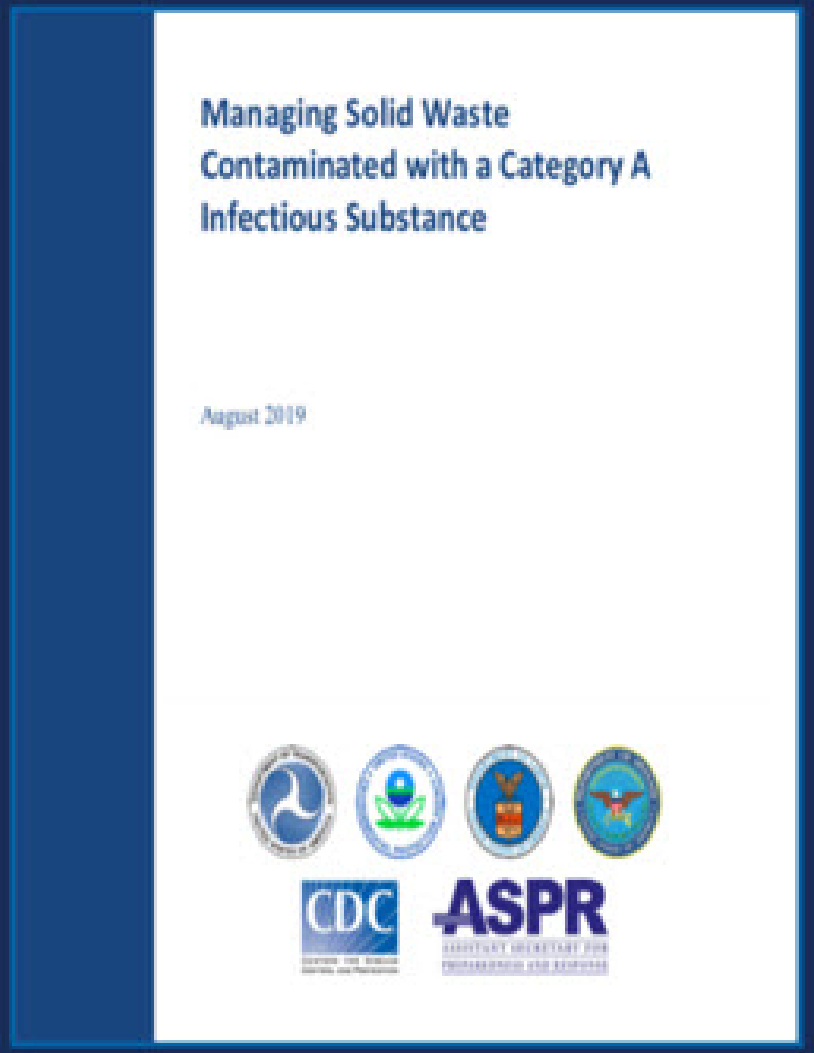

MEDICAL WASTE MANAGEMENT ACT

JANUARY 2017

CALIFORNIA HEALTH AND SAFETY CODE
SECTIONS 117600 - 118360

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH
MEDICAL WASTE MANAGEMENT PROGRAM
1616 CAPITOL AVENUE, MS-7405
P. O. BOX 997377
SACRAMENTO, CA 95899-7377

Updated August 2019



https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/transporting-infectious-substances/6921/cat-waste-planning-guidance-final-2019-08.pdf

For questions on the Hazardous Material Requirements (HMR) contact the Pipeline and Hazardous Materials Safety Administration's (PHMSA's) Information Center at 1-800-467-4922, 9am-5pm Eastern time or email: infocntr@dot.gov

https://www.phmsa.dot.gov/standards-rulemaking/hazmat/hazardous-materials-information-center

Terminal Decontamination

- Wear appropriate PPE
- Prepare equipment for cleaning and disinfection
  - Disconnect circuits and other single use components and dispose appropriately
- Remove all waste including bed linens and privacy curtains if used
- Clean surfaces using a cleaning product
- Disinfect surfaces using an EPA approved disinfectant known to be effective for the particular pathogen
- Create and adhere to facility protocols

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Things to Consider

- Can the area be locked down and sequestered until disease status is known?
- Who will do the terminal cleaning, HCW's or EVS?
- Create cleaning checklists for both routine and terminal cleaning
- Adjunct Options:
  - Time
  - Ultraviolet light
  - Vaporized hydrogen peroxide

Source: NETEC Emerging Infectious Disease Preparedness Training Workshop 12/2019

Laboratory Testing for HCID

- Local Public Health Officers will assist with coordination of testing for HCID
- Collaborating with CDPH & CDC
- Link for Laboratory Biosafety Guidelines for handling and processing 2019 nCoV specimens: CDC Lab Safety - 2019 nCoV (https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Flab-biosafety-guidelines.html)
- Link for Guidance for U.S. Laboratories for Managing and Testing Routine Clinical Specimens when there is a concern about EVD: CDC Lab Safety – EVD (https://www.cdc.gov/vhf/ebola/laboratory-personnel/safe-specimen-management.html)

Just-in-Time (JIT) Training

- JIT training is a link between employees original training and improved performance
  - Knowledge is made available when it's needed
  - Employees are able to use their learnings to improve their performance right then and there
  - Improves safe performance
- JIT training needs to be planned for so it can be given when an emergent situation arises

Drills

- Unannounced for ED
- Try for an infectious disease drill at least once during the year
- Unannounced drills CDC MMWR 9-15-2017 - NY

(https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a2.htm)

Scenarios and Group Discussion

Instructions

- Break into groups that represent 2-3 hospitals
- Answer each question on the next few slides two times:
  - What is current practice at your hospital?
  - What changes do we need to make to be prepared to Identify, Isolate and Inform about a HCID patient?

Scenario 1

Your ED is particularly busy today. Patient census is high and the waiting area is full of people camped out with pillows and blankets.

A 42 y/o man is brought in by his family, and is greeted by the screening nurse. He's complaining of fever, cough, and shortness of breath for 4 days. What should the nurse do next?

Scenario 1 Next

Patient stated he is visiting from China and arrived to the United States a little less than a week ago. What should be done next?

Scenario 1 Next, cont'd

The isolation room is currently occupied by a patient and will not be available for another an hour. Where will the patient wait?

Who gets notified? Who will do the notifying?

Scenario 2

Patient arrives to your facility c/o headache, fever, and body aches for 4 days. What are some pertinent questions that should be asked at triage intake?

Scenario 2 Next

Patient stated he recently came back from a mission trip in Liberia a week ago.

What will the triage nurse do?

Questions

Resources

- CDPH Ebola resources

(https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/EbolaVirusDisease.aspx)

- CDPH 2019 Novel Coronavirus resources

(https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/nCOV2019.aspx)

- ASPR Frontline Hospital Playbook (PDF)

(https://cdn.ymaws.com/fvherc.org/resource/resmgr/docs/ASPR_TRACIE_Frontline_Hospit.pdf)

- NETEC Training and Education

(https://netec.org/training-2/)