



Identifying, Isolating and Evaluating Patients with Suspected Ebola Virus Disease in the Outpatient and ED Setting



PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER COMMUNITY



Speakers

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Other Experts

Do You Have a Role?

YES

All hospitals and clinics need to be ready.

Clinical staff and physicians should be following basic infection control practices.

Identifying, Isolating and Evaluating Patients with Suspected Ebola Virus Disease in the Outpatient and ED Setting

- This webinar was developed in partnership by the following groups



- Recommendations in this webinar are based on guidance from US Centers of Disease Control as of November 5, 2014.

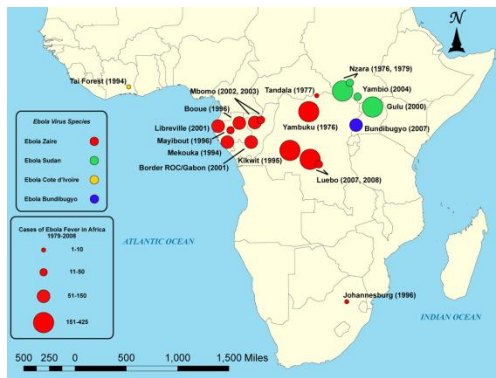
Outline

- Ebola basics
- Preparation
- The 3 “I”s
 - Identify
 - Isolate
 - Inform
- HIPAA
- Accidental contamination
- Disposal of waste and contaminated equipment
- Important contact information
- Donning and doffing PPE

Ebola Virus Disease = EVD

Avoiding Ebola Panic

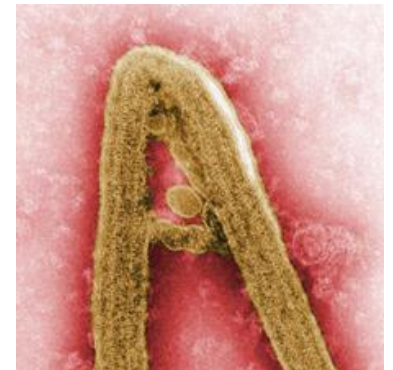
- Be educated—Be prepared—Be safe
- Communicate with your team
- Always practice standard precautions
- Don't forget other potential infectious risks—MERS, measles, novel flu



Ebolavirus Basics

Past outbreaks

- Virus of the family *Filoviridae*, genus *Ebolavirus*
- Discovered in 1976 near Ebola River in Democratic Republic of Congo (former Zaire)
- 5 subspecies, 4 subspecies cause disease in humans
- Bats are most likely reservoir
- Occurs in other animal hosts
- >20 African outbreaks 1976-2014



2014 Ebola Outbreak



Areas affected by 2014 outbreak

- Largest to date
 - > 13,000 cases and ~ 5000 deaths
- Countries with widespread transmission
 - Guinea, Liberia, Sierra Leone
 - Only affecting a small part of the African continent
- Countries with recent localized transmission
 - United States due to recent transmission to healthcare workers
 - Nigeria, Senegal, Spain
- Healthcare workers and close contacts of cases at highest risk
- No definitive treatment or vaccine, only supportive care

Symptoms of Ebola Virus Disease

- Incubation period 2-21 days (8-10 most common)
- Early symptoms include fever, headache, weakness, muscle pain
- Later symptoms may include vomiting, diarrhea, abdominal pain, and bleeding
- Death due to dehydration, multi-organ failure
- High case fatality rate





Ebola Transmission

- Spread through direct contact with
 - Blood or body fluids of Ebola case
 - Objects contaminated with body fluids
 - Infected animals (bats and primates)
- **Not** spread through
 - Airborne route
 - Water or food grown in the United States
 - Casual contact like sitting next to someone
- Contagious with onset of symptoms
 - Transmissibility low during initial 24 hours of illness
- Survival of Ebola virus
 - Hours on dry surfaces; days in body fluids
 - Inactivated by EPA-registered hospital disinfectants for non-enveloped viruses and by bleach



Prepare

- 3 different levels of Ebola care
 - EVD treatment facilities—hospitals with advanced readiness
 - EVD screening facilities—emergency departments and all hospitals
 - All other ambulatory settings

Which of these levels does your facility fall into?

Educate and Prepare Your Staff

- Assign infection control planning for your facility to an expert (include members of response team in planning)
- Identify and focus training on staff who will interact with potential Ebola patients (reception, triage, clinicians)
- Review and display CDC screening algorithm
- Practice and exercise how to handle first patient
- Train and assess competency of staff in PPE donning (putting on) and doffing (taking off) using actual PPE to be used in facility, assess and review weekly
- Know how to contact local and state public health
- Plan for EMS transport of suspected Ebola patient

Prepare Your Facility

- Facility and patient risk assessment
 - How often do sick patients walk in?
 - Does clientele include travelers or immigrants?
 - Emergency Department, Urgent Care and primary care higher risk than referral-based subspecialty clinic
- Identify patient isolation area with private toilet (or commode) in your facility
- Identify areas for donning and doffing PPE adjacent to isolation room
 - Display checklist or poster for donning and doffing PPE

Obtain the right supplies

- Secure adequate supply and sizes of single use PPE (at a minimum)
 - Surgical facemasks
 - Face shields
 - Impermeable gowns
 - Gloves (long enough to cover wrist)
- Secure cleaning and disinfection supplies
 - EPA-registered hospital disinfectants for non-enveloped viruses (e.g., norovirus, rotavirus) or 10% bleach solution
 - <http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>
 - <http://www.epa.gov/oppad001/list-l-ebola-virus.html>
 - https://www.osha.gov/Publications/OSHA_FS-3756.pdf
- Plan for proper disposal of waste and equipment (bleach and biohazard bags)
 - <http://www.doh.wa.gov/Portals/1/Documents/1000/EbolaWasteWaterTreatmentPro.pdf>

Consider Preparing Kits

- PPE Kits (basic)—Surgical facemask, face shield, impermeable gown, 2 pairs gloves, red biohazard bag
- PPE *Training* Kits—Reuse, don't waste PPE
- Ebola Patient Care Kits—Red biohazard bag, emesis bag/basin, tissues, urinal, bedpan, blue “chux” pads, disposable stethoscope, disposable thermometer
- Number of kits and type of PPE determined by facility and patient risk assessment—Emory ambulatory system 3 - 10 kits/clinic
- Most emergency departments expected to have full barrier precautions

<http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>

The Three “I”s

Identify

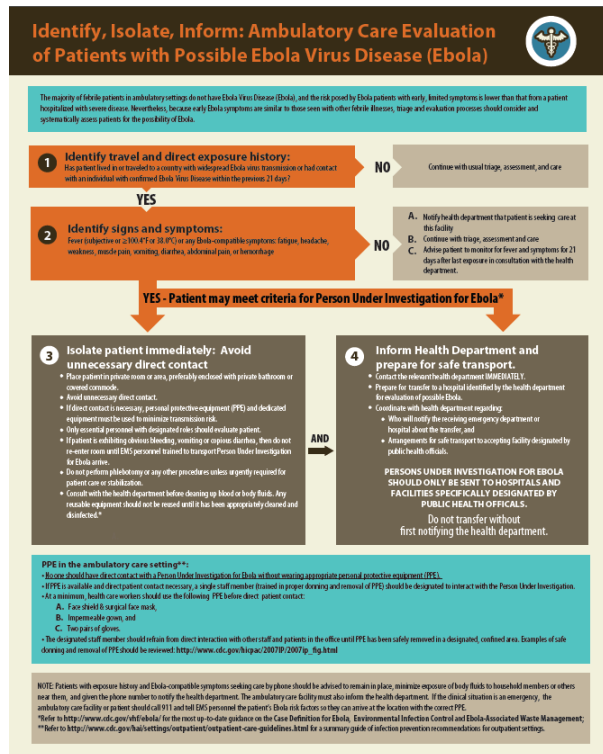
Isolate

Inform

Identify, Isolate, Inform

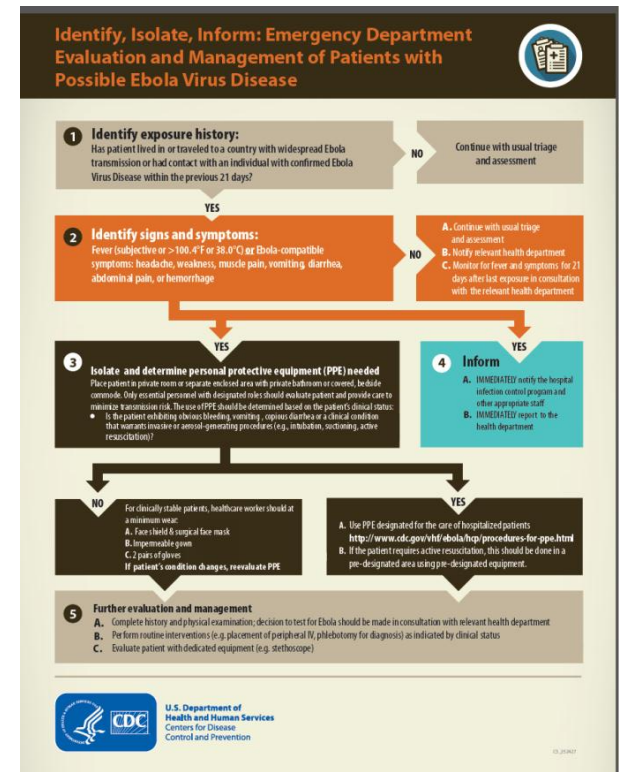
Review these resources with staff and post in a prominent location

Ambulatory Settings



<http://www.cdc.gov/vhf/ebola/pdf/ambulatory-care-evaluation-of-patients-with-possible-ebola.pdf>

Emergency Departments



<http://www.cdc.gov/vhf/ebola/pdf/ed-algorithm-management-patients-possible-ebola.pdf>

Identify—Ebola Screening via Phone

- Have your receptionist or scheduler ask
 - Resided in/traveled to an Ebola affected area, OR contact with a confirmed Ebola case within the past 21 days?
 - If yes—ask about presence of signs or symptoms of Ebola?
- If positive screen, before making appointment, turn call over to clinical staff to evaluate whether concern for Ebola warrants referral to an Ebola-screening hospital

Identify—Ebola Screening in Person

- Ask exposure history
 - Resided in/traveled to an Ebola affected area, OR
 - Contact with a confirmed Ebola case within the past 21 days?
- If yes—ask about presence of signs/symptoms of Ebola?
 - Fever (subjective or $\geq 100.4^{\circ}\text{F}$ or 38.0°C)
 - Headache
 - Weakness
 - Muscle pain
 - Vomiting
 - Diarrhea
 - Abdominal pain
 - Hemorrhage/bleeding

Isolate

- If yes to Ebola exposure AND Ebola symptoms
 - Isolate patient in private room with private toilet
 - Use dedicated equipment
 - Only essential personnel with designated roles should enter room & keep log of those who enter
 - No direct contact with patient until PPE in place
 - Minimum PPE: surgical face mask, face shield, impermeable gown, and two pairs of gloves
 - Additional PPE may be necessary based on the patient's clinical status

Patients with Possible Ebola in Ambulatory Settings (1)

- Isolate in private room
- Inform other key staff
- Avoid unnecessary direct contact
- If direct contact is necessary, use PPE and dedicated equipment
- Limit personnel to those essential for care
- If bleeding, vomiting, or uncontained diarrhea (wet symptoms), if possible, and patient is stable, do not reenter room until EMS trained to transport Ebola arrive
- No blood draws or other procedures unless necessary to stabilize patient
- Consult with health department before cleaning blood/body fluids

Identify, Isolate, Inform: Ambulatory Care Evaluation of Patients with Possible Ebola Virus Disease (Ebola)

The majority of Ebola patients in ambulatory settings do not have Ebola Virus Disease (Ebola), and the risk posed by Ebola patients with early, limited symptoms is lower than that from a patient hospitalized with severe disease. Nevertheless, because early Ebola symptoms are similar to those seen with other Ebola diseases, triage and evaluation processes should consider and systematically assess patients for the possibility of Ebola.

1 Identify travel and direct exposure history:
Has patient been in or traveled to country with widespread Ebola virus transmission in last contact with an individual with confirmed Ebola Virus Disease within the previous 21 days?

NO Continue with usual triage, assessment, and care.

YES

2 Identify signs and symptoms:
Fever (temperature of 38.0°C or 100.4°F) or any Ebola-compatible symptoms (fatigue, headache, weakness, muscle pain, vomiting, diarrhea, abdominal pain, or hemorrhage)

NO A. Notify health department that patient is seeking care at the facility.
B. Continue with triage, assessment, and care.
C. Advise patient to monitor for fever and symptoms for 21 days after last exposure in consultation with the health department.

YES - Patient may meet criteria for Person Under Investigation for Ebola*

3 Isolate patient immediately: Avoid unnecessary direct contact

- Place patient in private room or area, preferably enclosed with private bathroom or covered corridor.
- Avoid unnecessary direct contact.
- If direct contact is necessary, personal protective equipment (PPE) and dedicated equipment must be used to minimize transmission risk.
- Only essential personnel with designated roles should evaluate patient.
- If patient is exhibiting obvious bleeding, vomiting or regurgitation, then do not re-enter room until EMS personnel trained to transport Person Under Investigation for Ebola arrive.
- Do not perform phlebotomy or any other procedures unless urgently required for patient care or stabilization.
- Consult with the health department before cleaning up blood or body fluids. Any reusable equipment should not be reused until it has been appropriately cleaned and disinfected.**

4 Inform Health Department and prepare for safe transport.

- Contact the relevant health department IMMEDIATELY.
- Prepare for transfer to a hospital identified by the health department for evaluation of possible Ebola.
- Coordinate with health department regarding:
 - Who will notify the receiving emergency department or hospital about the transfer, and
 - Arrangements for safe transport to accepting facility designated by public health officials.

PERSONS UNDER INVESTIGATION FOR EBOLA SHOULD ONLY BE SENT TO HOSPITALS AND FACILITIES SPECIFICALLY DESIGNATED BY PUBLIC HEALTH OFFICIALS.

Do not transfer without first notifying the health department.

PPE in the ambulatory care setting:**

- Because direct contact with a Person Under Investigation for Ebola or blood remains an essential personal protective equipment (PPE),
- PPE is available and direct contact necessary, a single staff member trained in proper donning and removal of PPE should be designated to interact with the Person Under Investigation.
- At a minimum, health-care workers should use the following PPE before direct patient contact:
 - Face shield or surgical face mask,
 - Impervious gown, and
 - Two pairs of gloves.
- The designated staff member should refrain from direct interaction with other staff and patients in the office until PPE has been safely removed in a designated, enclosed area. Examples of safe donning and removal of PPE should be reviewed http://www.cdc.gov/nipac/2007p/2007ip_09g.html

NOTE: Patients with exposure history and Ebola-compatible symptoms seeking care by phone should be advised to remain in place, minimize exposure of body fluids to household members or others near them, and given the phone number to notify the health department. The ambulatory care facility must also inform the health department. If the clinical situation is an emergency, the ambulatory care facility or patient should call 911 and tell EMS personnel the patient's Ebola risk factors so they can arrive at the location with the correct PPE.

*Refer to <http://www.cdc.gov/ebola/tips-for-the-next-30-days-patient-care> for the Case Definition for Ebola, Environmental Infection Control and Ebola-Associated Waste Management.

**Refer to <http://www.cdc.gov/hai/settings/ outpatient/outpatient-care-guidelines.html> for a summary guide of effective prevention recommendations for outpatient settings.

U.S. Centers for Disease Control and Prevention

Patients with Possible Ebola in Ambulatory Settings (2)

- Immediately inform health department
- Transfer to Ebola screening hospital identified by health department
- Coordinate with health dept regarding
 - Notifying the receiving hospital
 - EMS transport arrangements
- Patients with possible Ebola should only be sent to hospitals or facilities specifically designated by public health officials
- Do not transfer without first notifying the health department
- When calling EMS and the receiving facility, mention concern for Ebola

Identify, Isolate, Inform: Ambulatory Care Evaluation of Patients with Possible Ebola Virus Disease (Ebola)

The majority of Ebola patients in ambulatory settings do not have Ebola Virus Disease (Ebola), and the risk posed by Ebola patients with early, limited symptoms is lower than that from a patient hospitalized with severe disease. Nevertheless, because early Ebola symptoms are similar to those seen with other febrile illnesses, triage and evaluation processes should consider and systematically assess patients for the possibility of Ebola.

- Identify travel and direct exposure history:**
Has the patient been or not traveled to a country with widespread Ebola virus transmission or had contact with an individual with confirmed Ebola Virus Disease within the previous 21 days?
 - NO** → Continue with usual triage, assessment, and care.
 - YES** → Proceed to step 2.
- Identify signs and symptoms:**
Fever (subjective or a 100.4°F or 38.0°C) or any Ebola-compatible symptoms: fatigue, headache, weakness, muscle pain, vomiting, diarrhea, abdominal pain, or hemorrhage.
 - NO** → A. Notify health department that patient is seeking care at the facility.
B. Continue with triage, assessment and care.
C. Advise patient to monitor for fever and symptoms for 21 days after last exposure in consultation with the health department.
 - YES - Patient may meet criteria for Person Under Investigation for Ebola*** → Proceed to step 3.
- Isolate patient immediately: Avoid unnecessary direct contact**
 - Place patient in private room or area, preferably enclosed with private bathroom or closed corridor.
 - Avoid unnecessary direct contact.
 - If direct contact is necessary, personal protective equipment (PPE) and dedicated equipment must be used to minimize transmission risk.
 - Only essential personnel with designated roles should evaluate patient.
 - If patient is exhibiting obvious bleeding, vomiting or severe diarrhea, then do not re-enter room until EMS personnel trained to transport Person Under Investigation for Ebola arrive.
 - Do not perform phlebotomy or any other procedures unless strictly required for patient care or stabilization.
 - Consult with the health department before cleaning up blood or body fluids. Any reusable equipment should not be reused until it has been appropriately cleaned and disinfected.**
- Inform Health Department and prepare for safe transport.**
 - Contact the relevant health department IMMEDIATELY.
 - Prepare for transfer to a hospital identified by the health department for evaluation of possible Ebola.
 - Coordinate with health department regarding:
 - Who will notify the receiving emergency department or hospital about the transfer, and
 - Arrangements for safe transport to accepting facility designated by public health officials.

PERSONS UNDER INVESTIGATION FOR EBOLA SHOULD ONLY BE SENT TO HOSPITALS AND FACILITIES SPECIFICALLY DESIGNATED BY PUBLIC HEALTH OFFICIALS.

Do not transfer without first notifying the health department.

PPE in the ambulatory care setting**

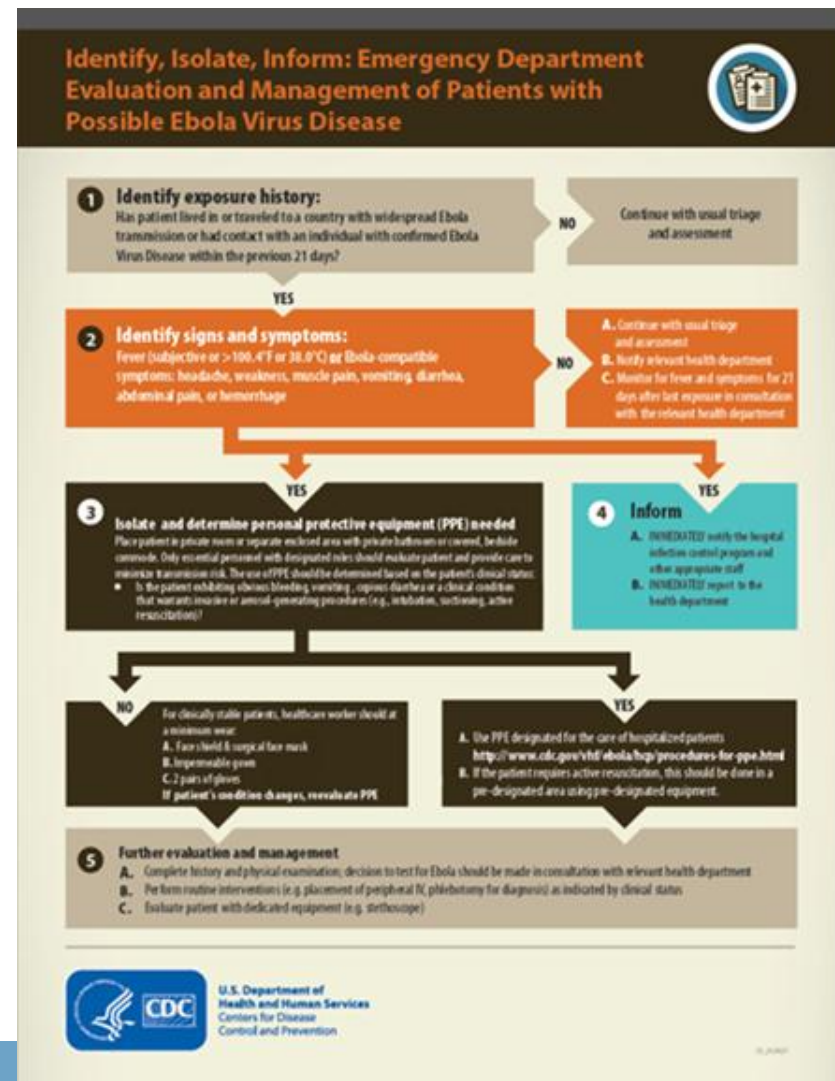
- Person should have direct contact with a Person Under Investigation for Ebola without ensuring appropriate personal protective equipment (PPE).
- PPE is available and direct patient contact necessary, a single staff member (trained in proper donning and removal of PPE) should be designated to interact with the Person Under Investigation.
- At a minimum, health-care workers should use the following PPE before direct patient contact:
 - Two shields or goggle face mask,
 - Impermeable gown, and
 - Two pairs of gloves.
- The designated staff member should reduce direct interaction with other staff and patients in the office and PPE has been safely removed in a designated, enclosed area. Examples of safe donning and removal of PPE should be reviewed. http://www.cdc.gov/hispaac/2007BP/2007bp_08g.html

NOTE: Patients with exposure history and Ebola-compatible symptoms seeking care by phone should be advised to remain in place, minimize exposure of body fluids to household members or others near them, and given the phone number to notify the health department. The ambulatory care facility must also inform the health department. If the clinical situation is an emergency, the ambulatory care facility or patient should call 911 and tell EMS personnel the patient's Ebola risk factors so they can act on the location with the correct PPE.
*Refer to <http://www.cdc.gov/ebola/> for the most up-to-date guidance on the Case Definition for Ebola, Environmental Infection Control and Ebola-Associated Waste Management.
** Refer to <http://www.cdc.gov/hispaac/outpatient/outpatient-care-guidelines.html> for a summary guide of infection prevention recommendations for outpatient settings.

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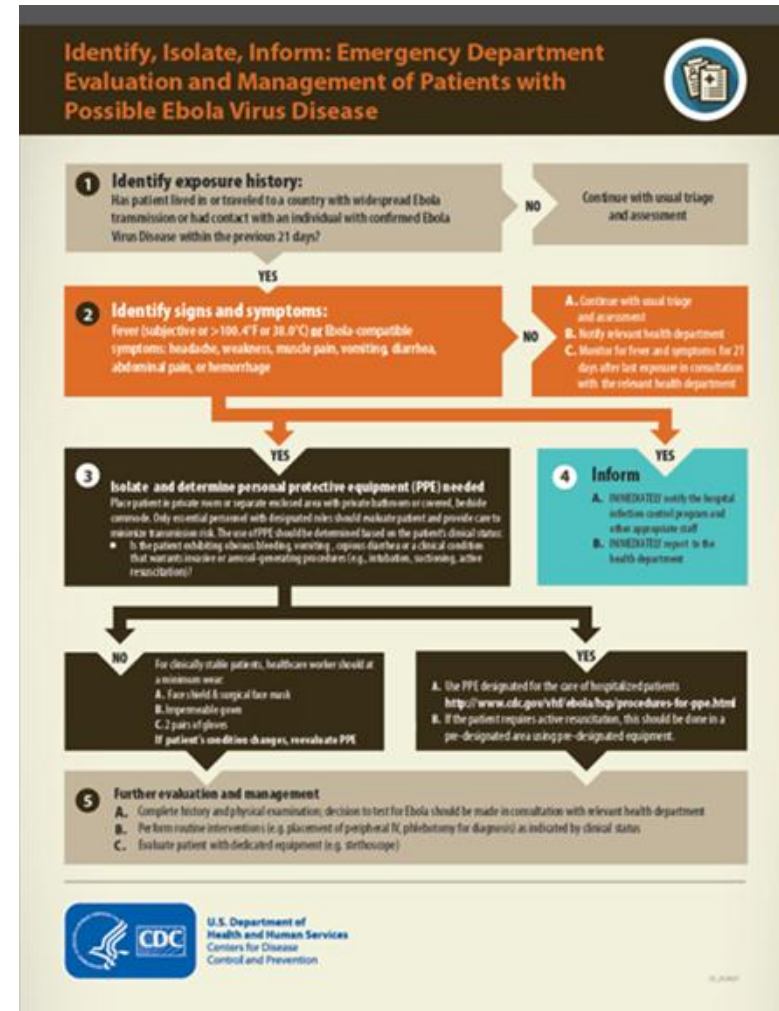
Patients with Possible Ebola in Emergency Department (1)

- Isolate in private room
- Immediately inform other key staff, hospital IP, and health department
- Only essential personnel should evaluate patient and provide care
- Choose PPE based on patient's clinical status
- WET SYMPTOMS: use PPE as for hospitalized Ebola patient
<http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>
- Clinically stable patients without bleeding, vomiting or diarrhea: use surgical facemask, face shield, impermeable gown, 2 pairs gloves, at a minimum



Patients with Possible Ebola in Emergency Department (2)

- Complete history and physical
- Use dedicated equipment
- Consult with health department regarding testing for Ebola
- Perform blood draws and other procedures as indicated by clinical status



Mandate to Protect Patient Privacy

- HIPAA Act of 1996 & Washington State Health Care Information Act (Ch. 70.02) forbid accessing patient information except for
 - Treatment of the patient
 - Payment
 - Health care operations
- Access only minimum necessary to perform job
- Do not share information that could identify patient

Honoring Patient's Rights

HIPAA Fact Sheet

HIPAA, Washington State Health Laws, and Ebola: What Front-Line Health Care Workers Need to Know

The Health Insurance Portability and Accountability Act of 1996 and its implementing regulations (HIPAA) and the Washington State Health Care Information Act, Chapter 70.02 Revised Code of Washington, provide patient privacy protections. The laws apply even when a patient has a communicable disease like Ebola. Here's what front-line health care workers should know:

Patient privacy protections still apply.

If you learn of an Ebola patient in your facility, you may not access information about that patient – unless it is for reasons permitted by law, including treatment of the patient or for payment or health care operations purposes. This includes accessing or reading the patient's medical records. Even when a health care worker's job requires accessing patient information, the worker must follow the "minimum necessary rule" and not access more information than is required to perform his or her job.

Be careful what you say to others.

Unless it is for a purpose permitted by law health care workers may not share information that could lead to the identification of the patient. This means you can only share very limited information, if any, with your family, friends and neighbors. Be especially careful about posting information on social media.

It is permissible to communicate with close family and friends of the patient, unless the patient objects.

Unless the patient has stated an objection, it is

permissible to share information with immediate family and friends with whom the patient is known to have a close personal relationship. These disclosures must be made in accordance with good medical or professional practice.

Unless a patient opts out, directory information can be shared.

Hospitals are permitted to share directory information about the patient without asking the patient's permission. Directory information typically includes the fact of the patient's presence at the hospital and general condition. However, patients can also opt out of providing this information – and when a patient does so, his or her decision must be honored.

Hospitals can release some information for public health purposes.

Specific exceptions in federal and state privacy laws allow hospitals to release information to state and federal agencies and to others for public health and safety purposes. Such steps should be taken only in consultation with the hospital's Privacy Officer and/or legal counsel.

For more information please contact your hospital's Privacy Officer at _____.

What if you contaminate yourself?

STOP, WASH, REPORT

- Direct skin contact with suspected Ebola patient—Stop working and wash the affected skin surfaces with soap and water
- Mucous membrane exposure to body fluids from suspected Ebola patient—Stop working and irrigate exposed area with large amount of water or saline
- Needle stick—Stop working and wash the wound with soap and water
- Breach in PPE—Exit patient care area as soon as possible, remove PPE, wash affected skin surfaces with soap and water
- Report all exposures to occupational health or supervisor
 - Remember other blood borne pathogens
- Call local health to discuss potential Ebola exposure

<http://www.cdc.gov/niosh/topics/bbp/emergnedl.html>

Cleaning, Disinfection and Waste Disposal

- Cleaning staff should wear appropriate PPE
- Use EPA-registered hospital disinfectant with label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect surfaces and reusable equipment
- Discard all linens, non-fluid-impermeable pillows or mattresses, dishes and utensils as medical waste
- Ebola virus is Category A infectious substance; any potentially contaminated item must be packaged and transported following DOT Hazardous Materials Regulations
- For large spills, use a chemical disinfectant (bleach)
- For liquid waste: 1 cup of bleach in toilet, let stand 5 minutes before flushing

<http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>

<http://www.epa.gov/oppad001/list-l-ebola-virus.html>

https://www.osha.gov/Publications/OSHA_FS-3756.pdf

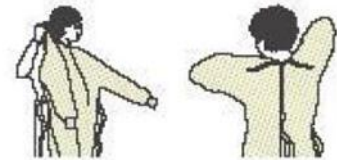
<http://www.doh.wa.gov/Portals/1/Documents/1000/EbolaWasteWaterTreatmentPro.pdf>

Contacts for Ebola Consultation and Transports

- Find local public health contact number at <http://www.doh.wa.gov/AboutUs/PublicHealthSystem/LocalHealthJurisdictions>
- Establish relationship with local health BEFORE having a patient with a positive Ebola screen to determine
 - Best method of contacting local health
 - Nearest healthcare facility capable of evaluating & caring for suspected Ebola patient
 - Local EMS transport provider for suspected Ebola patients
- Make sure staff who may provide Ebola response knows
 - Local Health Department 24/7 contact phone for Ebola
 - State Health Department 24/7 contact phone for Ebola 206-418-5500, or 1-877-539-4344
 - Nearest Ebola-capable acute healthcare facility
 - Local EMS provider for Ebola patients

Putting on Basic PPE Before Care of Potential Ebola Patient

- Go to designated PPE donning area with PPE buddy
- Open PPE kit or select PPE, inspect to make sure it's intact and right size
 - surgical facemask
 - face shield
 - impermeable gown
 - 2 pairs gloves
- Put on inner gloves
- Put on gown
- Put on surgical facemask
- Put on face shield
- Put on outer gloves, making sure cuff of sleeves is covered
- Perform patient care



Removing Basic PPE After Care of Potential Ebola Patient (1)

- Go to designated PPE doffing area with PPE buddy
- Have red biohazard bag for discarding used PPE
- Inspect PPE for holes or tears
- Perform hand hygiene
- Remove outer gloves, perform hand hygiene
- Remove face shield; perform hand hygiene
- Remove facemask; perform hand hygiene



Removing Basic PPE After Care of Potential Ebola Patient (2)

- Remove gown and inner gloves in one action, being sure to only touch the clean inside of the gown and gloves
- Wash hands with soap and water, if available, otherwise use hand sanitizer
- Practice putting on and taking off PPE before actual use



CDC “Guidance on PPE To Be Used by Healthcare Workers During Management of Patients with Ebola in U.S. Hospitals”

- Updated 10/20/14, more stringent, calls for
 - No physical contact with patient until PPE in place
 - Full barrier precautions for inpatient care
 - Training and assessment of competency
 - No exposed skin
 - Site manager to observe and ensure no breaches during care and when donning and doffing PPE
- Be aware of what is recommended and why

<http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>

<http://www.cdc.gov/vhf/ebola/hcp/ppe-training/index.html>

CDC Video

Ebola: Donning and Doffing of PPE

<http://www.medscape.com/viewarticle/833907>

Summary

- Ebola is transmitted through body fluids
- Case identification, isolation and contact monitoring are key steps for prevention
- Using appropriate PPE in healthcare settings is essential
- We have the knowledge and resources to prevent spread
- Be educated—Be prepared—Be safe

Questions or Suggestions?

