

Critical Access Hospital (CAH)

Ebola

Reference Manual

November 7, 2014

**All information is subject to disclaimer.*

An electronic copy of this manual is available at:

<http://montana.providence.org/hospitals/st-patrick/for-health-care-professionals/ebola-preparedness/>

CAH Ebola Reference Manual

***Disclaimer:** The information provided in this reference manual, including links to relevant websites and the information contained therein, is for general informational purposes only. The information and materials provided in this reference manual is intended to assist hospitals and health care providers in preparing for the care of patients diagnosed with or suspected of having the Ebola virus in their facilities. The information and materials provided in this manual are not to be used as a substitute for or to supplement any independent professional evaluation or professional medical judgment in the care for patients diagnosed with or suspected of having the Ebola virus.

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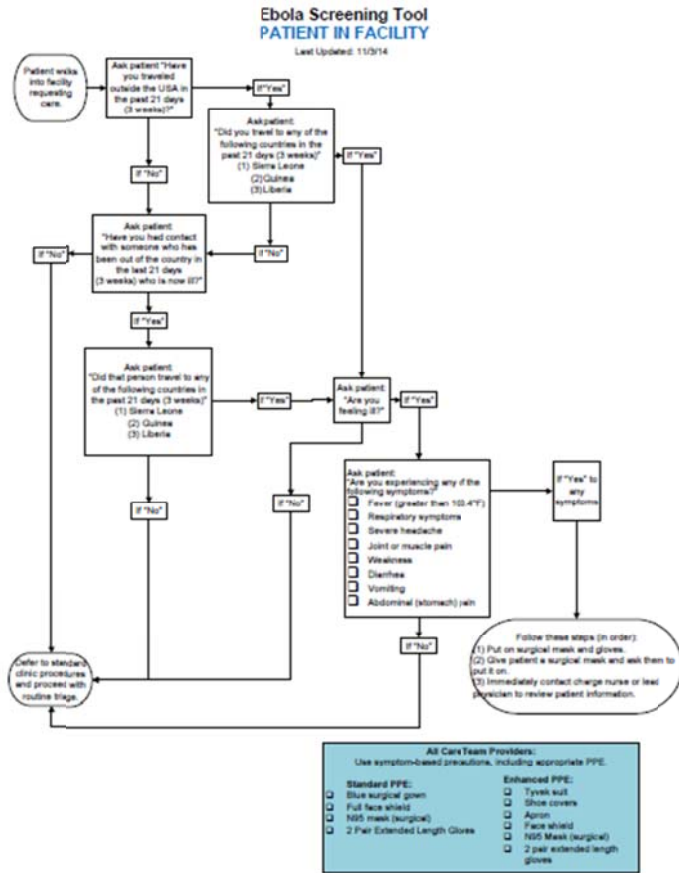
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Front Desk Registration

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Front Desk Registration

1. Patient presents at hospital/clinic waiting room.
2. Complete travel screening algorithm (one of the following forms)



3. The patient should sit and wait until the charge nurse gets the patient
 - a. Family/visitors will go with patient at this time.
4. After patient leaves waiting room, put on gloves and wipe down counter with bleach wipes. **DO NOT USE CAVI WIPES.** Bleach wipes can be thrown in the regular garbage.

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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 screening processes should consider and systematically assess patients for the possibility of Ebola.

- 1 Identify travel and direct exposure history:**
 • Ask patient about any contacts in a country with widespread Ebola virus transmission or that contact with an individual with confirmed Ebola Virus Disease within the past 21 days.
 YES → Continue with usual triage, assessment, and care.
 NO → Continue with usual triage, assessment, and care.
- 2 Identify signs and symptoms:**
 • Fever (greater than 102.4°F) or any Ebola-compatible symptoms (fatigue, headache, weakness, muscle pain, vomiting, diarrhea, abdominal pain or hemorrhage).
 YES → Patient may meet criteria for Person Under Investigation for Ebola*.
 NO → Continue with usual triage, assessment, and care.
- 3 Isolate patient immediately. Avoid unnecessary direct contact.**
 • Place patient in private room or area, physically enclosed with physical barriers or closed curtains.
 • Avoid unnecessary direct contact.
 • Minimize contact to necessary, and use protective equipment (PPE) and dedicated equipment that is used to reduce transmission risk.
 • Only essential personnel with designated masks should evaluate patient.
 • If patient is exhibiting diarrhea, vomiting or copious droplets, then do not use oral routes and use personal protective equipment under investigation for Ebola virus.
 • Do not perform phlebotomy or any other procedure to assess organ systems for patient care or risk & care.
 • Contact with the health department before disposing of 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 nearest health department IMMEDIATELY.
 • Prepare for transport 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 infection, 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:**

- **Standard PPE:** Blue surgical gown, Full face shield, N95 mask (surgical), 2 pair extended length gloves.
- **Enhanced PPE:** Tyvek suit, Shoe covers, Apron, Face shield, N95 Mask (surgical), 2 pair extended length gloves.

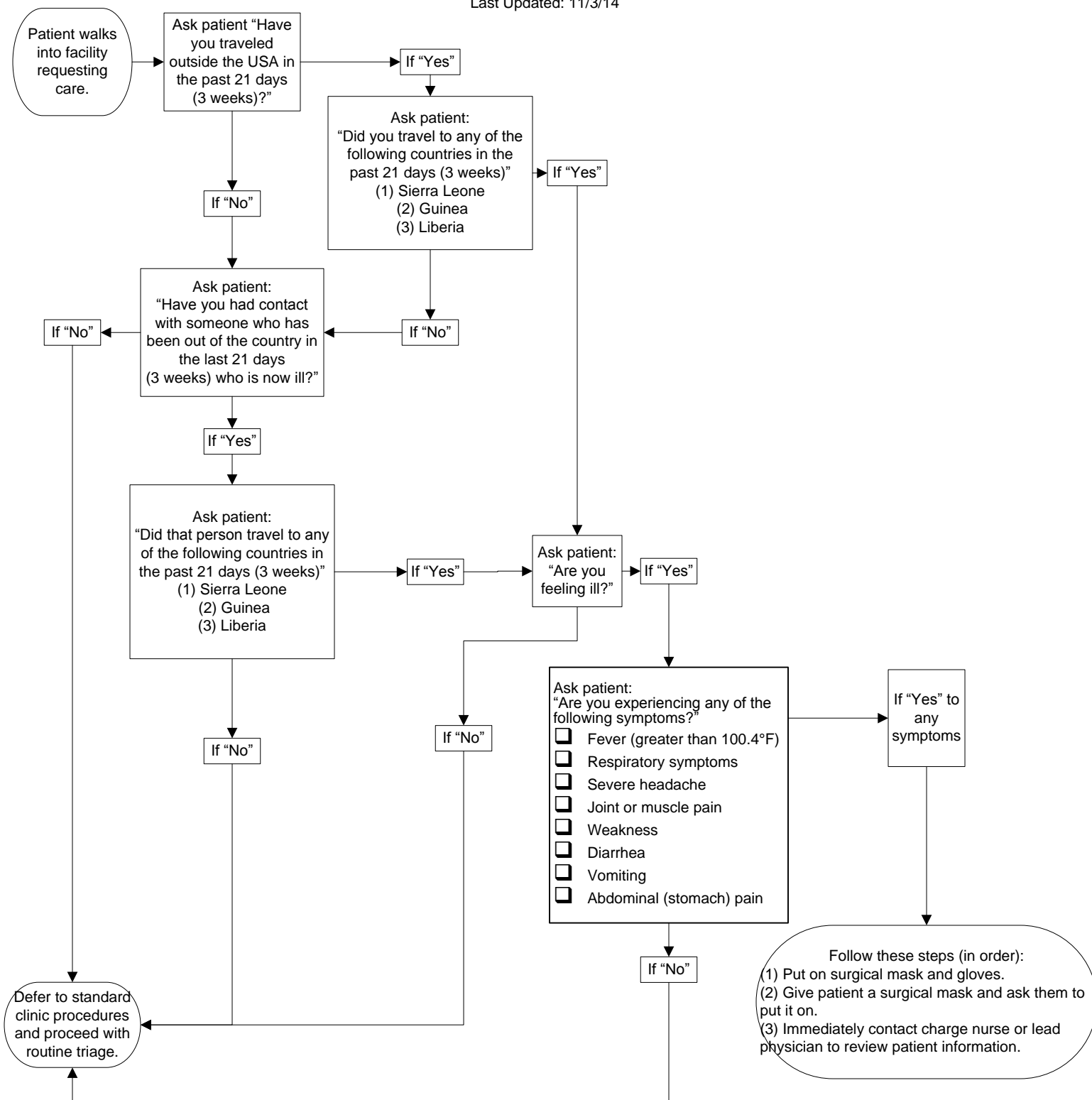
NOTES: Patients with exposure history and Ebola-compatible symptoms seeking care by phone should be advised to remain in place, minimize exposure of body fluids to household members or other occupants, and provide the phone number to notify the health department. The ambulatory care facility must be informed by health department. If the clinical situation is an emergency, the ambulatory care facility or patient should call 911 and arrange for immediate patient transport to the hospital. Do not use the car, arrive at the location with the correct PPE.
 *Refer to <http://www.cdc.gov/ebola/diseases/clinical/identifying.html> 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/ebola/diseases/clinical/outpatient-care-guidelines.html> for a summary guide of infection prevention recommendations for outpatient settings.

U.S. Centers for Disease Control and Prevention

Ebola Screening Tool

PATIENT IN FACILITY

Last Updated: 11/3/14



All Care Team Providers:
Use symptom-based precautions, including appropriate PPE.

<p>Standard PPE:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Blue surgical gown <input type="checkbox"/> Full face shield <input type="checkbox"/> N95 mask (surgical) <input type="checkbox"/> 2 Pair Extended Length Gloves 	<p>Enhanced PPE:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tyvek suit <input type="checkbox"/> Shoe covers <input type="checkbox"/> Apron <input type="checkbox"/> Face shield <input type="checkbox"/> N95 Mask (surgical) <input type="checkbox"/> 2 pair extended length gloves
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Identify, Isolate, Inform: Ambulatory Care Evaluation of Patients with Possible Ebola Virus Disease (Ebola)



The majority of febrile 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.

1 Identify travel and direct exposure history:

Has patient lived in or 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

2 Identify signs and symptoms:

Fever (subjective or $\geq 100.4^{\circ}\text{F}$ 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 this 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 commode.
- 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 copious 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 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.*

AND

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**:

- No one should have direct contact with a Person Under Investigation for Ebola without wearing appropriate personal protective equipment (PPE).
- If 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:
 - A.** Face shield & surgical face mask,
 - B.** Impermeable gown, and
 - C.** 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, confined area. Examples of safe donning and removal of PPE should be reviewed: http://www.cdc.gov/hicpac/2007IP/2007ip_fig.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/vhf/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/hai/settings/outpatient/outpatient-care-guidelines.html> for a summary guide of infection prevention recommendations for outpatient settings.

 = Countries of Concern for Ebola



RN Screening

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RN Screening

1. Bring patient to private screening area. Family/visitors may go with patient at this time.
 2. Ask patient about symptoms and travel.
 3. Determine Ebola risk:
 - a. Patient is **high risk** for exposure to Ebola if:
 - i. The patient traveled to Guinea, Liberia, or Sierra Leone and has symptoms

OR

 - ii. The patient has symptoms and previously had contact with someone who was ill after having traveled to Guinea, Liberia, or Sierra Leone, in the last 3 weeks
 - b. Patient is **low risk** for exposure to Ebola if:
 - i. The patient traveled within the US or to places in Africa not mentioned above (*unless it is a bordering country)

**For travel to countries bordering one of the identified countries, consult with Infectious Disease physician for further instruction.*
4. If patient is determined to be at **high risk** for Ebola,
 - a. Put on gown, gloves, and mask (not enhanced PPE at this time).
 - b. Move patient to isolated room (with negative pressure, if available), if not already there.
 - c. Leave the patient in the isolated room and let them know you will be back soon.
 - d. Remove PPE and wash hands.
 - e. Contact mid-level provider or physician on call.
 - f. Start notification process.
 - g. Talk with the family
 - i. Determine if family members have symptoms
 - ii. If no symptoms, encourage the family to go home and let them know we will keep them informed about the patient's progress and next steps.
 1. Provide family members with handouts
 - a. "What You Need to Know about Ebola" (CDC)
 - b. Info and Instructions to Contacts of Isolated Patient (MCCHD)
 2. Fill out "Patient in Infectious Disease Isolation" contact information form
 3. Fax "Patient in Infectious Disease Isolation" contact info to local county health dept. Infectious Disease Confidential Fax line.
 - iii. If the family refuses to go home, you may put them in the room next to the patient and we will keep them updated
5. If patient is determined to be at **low risk** for Ebola,
 - a. Use precautions appropriate to patient symptoms
 - i. e.g., For vomiting and diarrhea, use contact precautions.
 - b. Patient does not need negative pressure. Patient can be placed in any available room.
 - c. Proceed with standard care.

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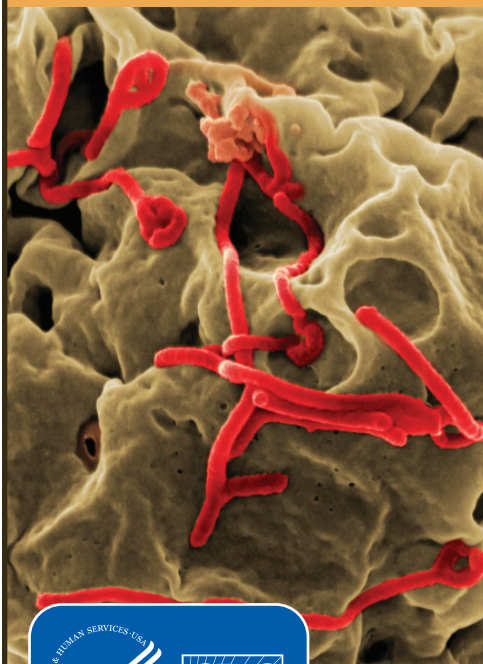
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What You Need to Know about **Ebola**

The 2014 Ebola epidemic is the largest in history

This outbreak is affecting multiple countries in West Africa. One imported case and associated locally acquired cases in healthcare workers have been reported in the United States.

CDC and its partners are taking precautions to prevent the further spread of Ebola within the United States.



A person infected with Ebola can't spread the disease until symptoms appear

The time from exposure to when signs or symptoms of the disease appear (the incubation period) is 2 to 21 days, but the average time is 8 to 10 days. Signs of Ebola include fever and symptoms like severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.

Ebola is spread through direct contact with blood and body fluids

Ebola is spread through direct contact (through broken skin or through your eyes, nose, or mouth) with

- Blood and body fluids (like urine, feces, saliva, vomit, sweat, and semen) of a person who is sick with Ebola.
- Objects (like needles) that have been contaminated with the blood or body fluids of a person sick with Ebola.

Ebola is **not** spread through the air, water, or food.

Protect yourself against Ebola

There is no FDA-approved vaccine available for Ebola. Experimental vaccines and treatments for Ebola are under development, but they have not yet been fully tested for safety or effectiveness.

To protect yourself from Ebola

- **DO** wash your hands often with soap and water or use an alcohol-based hand sanitizer.
- Do **NOT** touch the blood or body fluids (like urine, feces, saliva, vomit, sweat, and semen) of people who are sick.
- Do **NOT** handle items that may have come in contact with a sick person's blood or body fluids, like clothes, bedding, needles, or medical equipment.
- Do **NOT** touch the body of someone who has died of Ebola.





Dear Family, Friends, and Household Members of Isolated Patient:

While your loved one is being cared for in the hospital and examined for what may be a contagious disease, the Missoula City-County Health Department offers the following information about how the situation may affect you. The health department is required by law to make sure you have the information you need to watch yourselves for symptoms of disease and to protect others from spread of disease. We request that you take the following steps to assist in meeting these goals:

- 1) Before you leave the hospital, please write down on the attached form your name and contact information and that of family, housemates, and friends who accompanied you with your loved to the hospital today. Please leave the completed form with hospital staff.**

The information on this form will remain confidential and will be provided only to our infectious disease nurse who will contact you (and others on the list) for a private conversation about your risks and protective actions you will be asked to take.

- 2) From the time you leave the hospital until our infectious disease nurse contacts you, please take the following steps to help assure that you are not developing or spreading a contagious disease.**
 - a. Take your temperature twice a day (once in the morning and once in the evening).
 - i. If the temperature reading is higher than 100.4 degrees Fahrenheit or 38 degrees Celsius, or you begin to feel ill, ***stay at home, and;***
 - ii. Contact a health care provider right away. Do not go into a clinic or emergency before making a call to them first, and;
 - iii. Contact the Missoula City-County Health Department at 258-3896 or ask your health care provider to do so. (If it is after business hours, call Missoula County 9-1-1 and ask for the on-call infectious disease nurse to be contacted.)

- 3.) Please review the accompanying “Fact Sheet” about Ebola viral disease.**

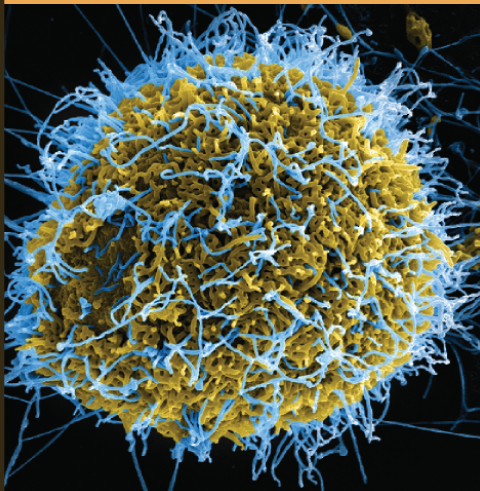
It is the top priority of our infectious disease nurse to talk with you as soon as possible about your recent contact with your hospitalized loved one. Once your risks are understood by you and our nurse, and certainly when we all learn of the condition of your hospitalized loved one, these instructions may change.

Thank you for helping us help you and others while we await and hope for good news about your loved one.

**For Questions or Concerns, please contact:
Infectious Disease Office
258-3896**

“Ebola is hard to fight, but we know how to fight it and how to beat it. . . We’re going to put in extra measures of safety to protect Americans.”

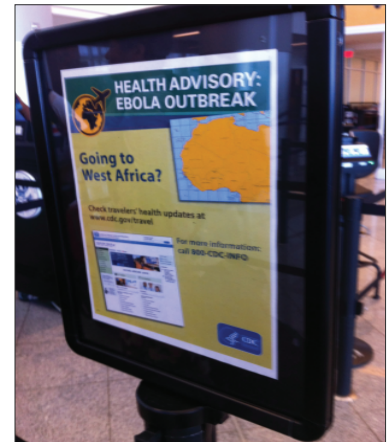
—CDC Director Tom Frieden, MD, MPH



What to do if you are exposed to Ebola

If you have traveled to an area with an Ebola outbreak or had close contact with a person sick with Ebola, you may be at risk if you

- Had direct contact with blood or body fluids or items that came into contact with blood or body fluids from a person with Ebola.
- Touched bats or nonhuman primates (like apes or monkeys) or blood, fluids, or raw meat prepared from these animals.
- Went into hospitals where Ebola patients were being treated and had close contact with the patients.
- Touched the body of a person who died of Ebola.



Health advisory for airline travelers

You should check for signs and symptoms of Ebola for 21 days

- Take your temperature every morning and evening.
- Watch for other Ebola symptoms, like severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.
- Call your doctor even if you do not have symptoms. The doctor can evaluate your exposure level and any symptoms and consult with public health authorities to determine if actions are needed.

During the time that you are watching for signs and symptoms, you can continue your normal activities, including going to work.

If you get sick after you come back from an area with an Ebola outbreak

- Get medical care **RIGHT AWAY** if you have a fever, severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.
- Tell your doctor about your recent travel to West Africa or contact with a person who was sick with Ebola and your symptoms **BEFORE** you go to the doctor’s office or emergency room. Calling before you go to the doctor’s office or emergency room will help the staff care for you and protect other people.

For more information: www.cdc.gov/ebola

Notifications

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Notifications (if patient is deemed **high risk** for Ebola)

1. **Primary RN** contact 2nd RN for assistance with patient care.
2. **Primary RN** call the House Supervisor.
3. **House Supervisor** contact Lab to alert them that possible lab specimen might be coming.
4. **House Supervisor** notify local County Health Department.
5. **ED Provider** will notify on-call Physician.
6. ***ED Provider** notify St. Patrick Hospital Infectious Disease Physician On-Call (Red team)
 - a. ***If** St. Patrick Hospital is the normal referral location for your hospital.

Care of the Patient

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Care of the Patient

1. Identify Primary RN (this will be the RN who screened the patient initially) and Secondary RN.
2. Primary RN puts on enhanced PPE.
 - a. Follow procedure learned in training and refer to the posted donning and doffing posters
 - b. The secondary RN is responsible for observing the primary RN throughout donning and doffing, to ensure the primary RN follows proper procedure.
3. Use the Buddy System – care of the patient is ALWAYS 2 people (the primary RN and secondary RN)
 - a. Secondary RN will don blue gown, mask, face shield, and gloves any time they are interacting with the nurse in the room with the door open
 - b. The secondary RN will don enhanced PPE any time they enter the patient room to assist with patient care.
 - c. The secondary RN is responsible for observing the primary RN throughout patient care to ensure the primary RN follows proper procedure.
 - d. The secondary RN will be available to hand items to the primary RN and may need to enter the room to assist.
 - e. If secondary RN is needed in the room to assist with patient care, the primary RN is responsible for observing the secondary RN throughout donning and doffing, to ensure the secondary RN follows proper procedure.
4. Limit staff contact with the patient.
5. Limit supplies and linens brought into the room with the patient as these items cannot be reused and will need to be incinerated.
6. Do not chart inside the room
7. Do not use bedside medication verification (bedside scanning)

Donning PPE Enhanced Isolation

In hospital Scrubs: Remove all jewelry and watches, secure hair

- 1. Shoe covers**
- 2. Isolation suits (make thumb holes)**
- 3. N-95**
- 4. Face shield**
- 5. Hood (covering all hair) meet face shield –
no exposed skin**
- 6. Plastic Apron**
- 7. First pair of gloves: inside suit- use self
made thumb hole**
- 8. Second pair of gloves: outside suit**

Doffing PPE: Enhanced Isolation

- 1. Position self in front of bio-hazard bin**
- 2. Hand Hygiene outer gloves**
- 3. Untie apron and pull down from straps
until it breaks from neck (slow careful motions)**
- 4. Gently drop in bio-hazard waste bin**
- 5. Hand hygiene on outer gloves**
- 6. Pull hood down using up and back motion**
- 7. Un-zip suit slowly**
- 8. Touching the outside of the suit carefully
push down below waist**
- 9. Pull hands out of sleeves and outer gloves**

Doffing PPE: Enhanced Isolation

10. Hand hygiene

11. Reach inside suit pushing downward to step out of suit, leaving shoe covers on

10. Pick-up touching inside of suit and place in bio-hazard bin

11. Hand hygiene on inner gloves

12. Do not approach patient

13. Open inner door and enter anteroom

Doffing PPE: Enhanced Isolation

In Anteroom:

14. Hand hygiene on inner gloves

15. Remove face-shield by pushing it up over head and directly into bio-hazard bin

16. Hand Hygiene inner gloves

17. Remove N95 use two fingers to pull out and up- drop directly into bio-hazard

18. Hand hygiene

19. Remove shoe covers from inside out

Doffing PPE: Enhanced Isolation

20. Hand hygiene

21. Remove inner gloves- inspect hands

22. Hand hygiene and Exit into Hall

Gown PPE – Donning & Doffing Instructions

Isolation (gown) Donning PPE:

- Remove all jewelry, watches and secure hair
- Put on impervious disposable isolation gown
- Hair bouffant cover all hair
- Surgical mask
- Apply Face shield
- Don first pair of gloves: inside suit- use thumb hole
Don second pair of gloves: outside suit

Doffing (gown) PPE:

- Position self in front of bio-hazard bin
- Hand hygiene outer gloves
- Untie gown and pull down from straps until it breaks
from neck (slow careful motions) and remove gloves in one
motion
- Gently drop in bio-hazard waste bin
- Hand hygiene on inner gloves
- Remove face shield
- Hand hygiene
- Remove surgical mask
- Hand hygiene
- Remove bouffant/ hand hygiene

Donning and Doffing PPE Competency Checklist

Name: _____ Title: _____ Unit: _____ Date: _____

Participant is to demonstrate and/or verbalize the following:

Performance Activity CIU Donning and Doffing Enhanced PPE	Yes	No	Comment
Donning (following sequence):			
<ul style="list-style-type: none"> <input type="checkbox"/> Remove all jewelry, watches and secure hair <input type="checkbox"/> Apply shoe covers <input type="checkbox"/> Put on isolation suit (make thumb holes) <input type="checkbox"/> Put on N-95 <input type="checkbox"/> Apply Face shield <input type="checkbox"/> Donn Plastic Apron <input type="checkbox"/> Donn first pair of gloves: inside suit- use self-made thumb hole <input type="checkbox"/> Donn second pair of gloves: outside suit <input type="checkbox"/> Donn Hood (covering all hair) meet face shield – no exposed skin 			
Doffing (in room):			
<ul style="list-style-type: none"> <input type="checkbox"/> Position self in front of bio-hazard bin <input type="checkbox"/> Hand hygiene outer gloves (allow sterilium to dry for 15- 30 seconds between steps) <input type="checkbox"/> Untie apron and pull down from straps until it breaks from neck (slow careful motions) <input type="checkbox"/> Gently drop in bio-hazard waste bin <input type="checkbox"/> Hand hygiene on outer gloves <input type="checkbox"/> Pull hood down using up and back motion <input type="checkbox"/> Un-zip suit slowly,(making sure not to touch your neck) <input type="checkbox"/> Touching the outside of the suit carefully push down below waist <input type="checkbox"/> Pull hands out of sleeves and outer gloves <input type="checkbox"/> Hand hygiene <input type="checkbox"/> Reach inside suit pushing downward to step out of suit, leaving shoe covers on <input type="checkbox"/> Pick-up touching inside of suit and place in bio-hazard bin <input type="checkbox"/> Hand hygiene on inner gloves <input type="checkbox"/> Do not approach patient <input type="checkbox"/> Open inner door and enter anteroom and let the door shut behind you without touching the door 			

Doffing (in anteroom):

<ul style="list-style-type: none"><input type="checkbox"/> Hand hygiene on inner gloves<input type="checkbox"/> Remove face-shield by pushing it up over head and directly into bio-hazard bin<input type="checkbox"/> Hand Hygiene inner gloves<input type="checkbox"/> Remove N95 use two fingers to pull out and up- drop directly into bio-hazard<input type="checkbox"/> Hand hygiene<input type="checkbox"/> Remove shoe covers from inside out<input type="checkbox"/> Hand hygiene<input type="checkbox"/> Remove inner gloves- inspect hands<input type="checkbox"/> Wash hands thoroughly with soap and water and Exit			
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The above skills have been successfully demonstrated

Preceptor/Validator

I agree with validator that I feel competent to perform above skills.

Employee

To Be Placed With Your Unit Competency Records

Employee Contact with Ebola Patient

Patient Name:

DOB:

Date	Time In	Time Out	Employee Name	Purpose

Recommended Ebola Orders

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Recommended Ebola Orders

1. ED Provider will notify ID Physician, if not already done
2. Implement Sepsis Orders.
3. If indicated by county health department, test for Ebola:
 - a. Polymerase chain reaction (PCR) – 2 purple tubes to be sent to State
 - b. Providers MUST contact the State Department of Public Health and Human Services Division if considering or requesting a test: 406-444-0273
4. Limit use of needles and sharps as much as possible (minimum necessary)

Labs

CAH Ebola Reference Manual

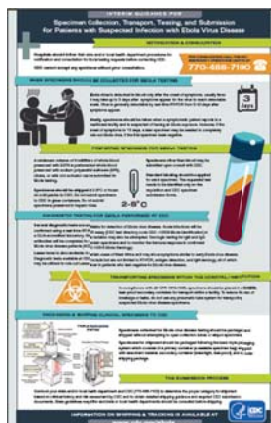
Collecting an Ebola PCR Lab Test

Specimen Collection Process (for Primary RN)

1. Make sure state lab has been notified of Ebola PCR lab test.
2. Print labels and bring into patient room
3. After collection of the specimen, label specimen.
4. Wipe tube with bleach wipe.
5. Hand sanitize over gloves.
6. Secondary RN will hand ziplock bag through patient room door to primary RN while wearing appropriate PPE.
7. Place specimen in a ziplock bag. Close bag and wipe with a bleach wipe.
8. Secondary RN will open the patient room door. Primary RN will drop the bagged specimen into a second ziplock bag that is being held open by the Secondary RN.
9. Secondary RN will seal second ziplock bag and date/time/initial outside of bag.
10. Secondary RN will perform hand hygiene.
11. Secondary RN hand carry specimen to the CAH lab.
12. CAH lab employee will be waiting in PPE to receive the specimen.

Packaging and Shipping Specimen to CDC State Lab

1. Follow CDC Guidance (Handout) for Specimen Transport, Testing, and Submission



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Specimen Collection, Transport, Testing, and Submission for Patients with Suspected Infection with Ebola Virus Disease

NOTIFICATION & CONSULTATION

Hospitals should follow their state and/or local health department procedures for notification and consultation for Ebola testing requests before contacting CDC.

CDC cannot accept any specimens without prior consultation.

FOR CONSULTATION, CALL THE CDC EMERGENCY OPERATIONS CENTER AT

770-488-7100



WHEN SPECIMENS SHOULD BE COLLECTED FOR EBOLA TESTING



Ebola virus is detected in blood only after the onset of symptoms, usually fever. It may take up to 3 days after symptoms appear for the virus to reach detectable levels. Virus is generally detectable by real-time RT-PCR from 3-10 days after symptoms appear.

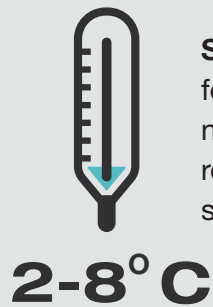


Ideally, specimens should be taken when a symptomatic patient reports to a healthcare facility and is suspected of having an Ebola exposure. However, if the onset of symptoms is <3 days, a later specimen may be needed to completely rule-out Ebola virus, if the first specimen tests negative.

PREFERRED SPECIMENS FOR EBOLA TESTING

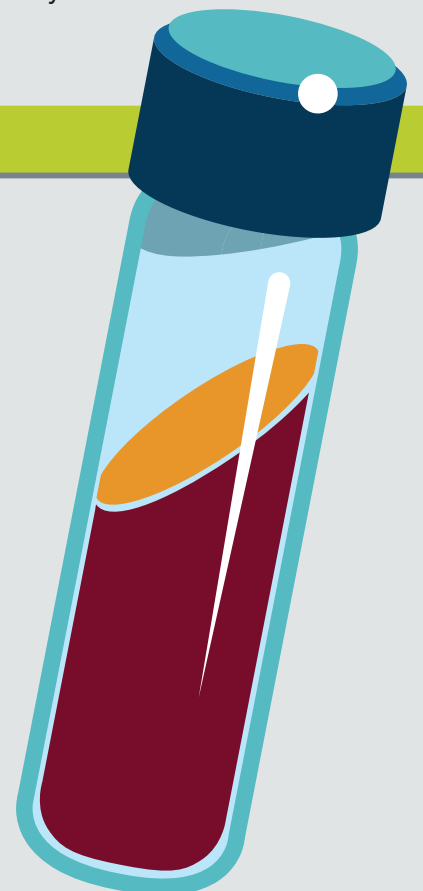
A minimum volume of 4 milliliters of whole blood preserved with EDTA is preferred but whole blood preserved with sodium polyanethol sulfonate (SPS), citrate, or with clot activator can be submitted for Ebola testing.

Specimens should be shipped at 2-8°C or frozen on cold-packs to CDC. Do not submit specimens to CDC in glass containers. Do not submit specimens preserved in heparin tubes.



Specimens other than blood may be submitted upon consult with CDC.

Standard labeling should be applied for each specimen. The requested test needs to be identified only on the requisition and CDC specimen submission forms.



DIAGNOSTIC TESTING FOR EBOLA PERFORMED AT CDC

Several diagnostic tests are available for detection of Ebola virus disease. Acute infections will be confirmed using a real-time RT-PCR assay (CDC test directory code CDC -10309 Ebola Identification) in a CLIA-accredited laboratory. Virus isolation may also be attempted. Serologic testing for IgM and IgG antibodies will be completed for certain specimens and to monitor the immune response in confirmed Ebola virus disease patients (#CDC-10310 Ebola Serology).

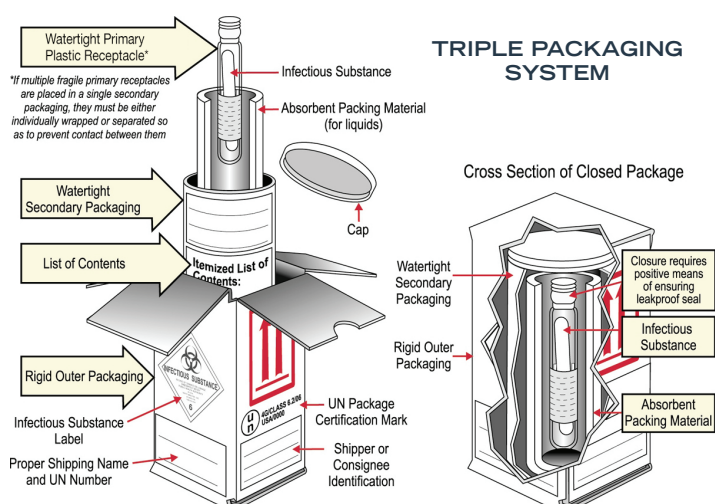
Lassa fever is also endemic in certain areas of West Africa and may show symptoms similar to early Ebola virus disease. Diagnostic tests available at CDC include but are not limited to RT-PCR, antigen detection, and IgM serology, all of which may be utilized to rule out Lassa fever in patients who test negative for Ebola virus disease.

TRANSPORTING SPECIMENS WITHIN THE HOSPITAL / INSTITUTION



In compliance with 29 CFR 1910.1030, specimens should be placed in a durable, leak-proof secondary container for transport within a facility. To reduce the risk of breakage or leaks, do not use any pneumatic tube system for transporting suspected Ebola virus disease specimens.

PACKAGING & SHIPPING CLINICAL SPECIMENS TO CDC



Specimens collected for Ebola virus disease testing should be packaged and shipped without attempting to open collection tubes or aliquot specimens.

Specimens for shipment should be packaged following the basic triple packaging system which consists of a primary container (a sealable specimen bag) wrapped with absorbent material, secondary container (watertight, leak-proof), and an outer shipping package.

THE SUBMISSION PROCESS

Contact your state and/or local health department and CDC (770-488-7100) to determine the proper category for shipment based on clinical history and risk assessment by CDC and to obtain detailed shipping guidance and required CDC submission documents. State guidelines may differ and state or local health departments should be consulted before shipping.

INFORMATION ON SHIPPING & TRACKING IS AVAILABLE AT

www.cdc.gov/ebola



Decontamination

CAH Ebola Reference Manual

Decontamination

Cleaning of Patient Room & Waste/Linen Disposal

1. Primary RN will wipe down all surfaces with bleach wipes. DO NOT USE CAVI WIPES.
2. Primary RN will bag all linens, trash, and wipes using red biohazard bags.
3. Primary RN will wipe down red biohazard bags of waste and linen with bleach wipes.
4. Secondary RN will be ready with red biohazard bags.
5. Primary RN will put red biohazard bags from the room into red biohazard bag that Secondary RN is holding.
6. Secondary RN will seal red biohazard bag(s) and hand-carry the bag(s) to hazardous waste container.
7. Primary RN will contact EVS for secondary cleaning.

Human Waste Disposal

1. Emesis, stool, and urine can be flushed
 - a. Obtain bleach from housekeeping staff
 - b. Pour one cup of bleach into the toilet and leave for 20 minutes, then flush

CAH Ebola Reference Manual

Decontamination

Body Fluid Clean-Up

An **Emergency Spill Kit** shall contain the following, in a large (3 gallon) disposable plastic bucket

- One pair of large tongs
- Two disposable dust pans
- Two pairs of heavy duty (“Playtex” style) rubber gloves
- Absorbent towels
- Dispatch Bleach® wipes (1:10) or comparable product.
- Four large blue pads (i.e., absorbent on one side and liquid impermeable on the other)
- A large bio hazardous waste bag

Procedure

- When a spill occurs make sure the patient is secure and attend to the patient's needs first
- Notify a co-worker immediately. The co-worker will be responsible for notifying the charge nurse for the shift, and whoever else in the co-worker’s opinion needs to be involved (this will depend on the medical status of the patient as well as the volume of the spill).
- Bring the spill kit into the patient room. Don rubber gloves over standard gloves.
- For spills, diarrhea etc that involve the patient’s gown, linens and bed, remove gown and all linen even if it does not appear contaminated. Place into biohazard bag. If the bed is heavily soiled it may be necessary to transfer the patient to a gurney in order to completely clean and decontaminate the bed.
- Clean the patient using chlorhexidine soap and place a new gown.
- For spills on the floor or other horizontal surfaces, cover the area with absorbent towels.
- With the squirt bottle slowly and carefully saturate the towels, beginning at the outside of the spill and moving inward in a circular motion.
- Once the entire area is completely saturated, cover it with as many blue pads as necessary to completely cover the area
- Wait 10 minutes for the hospital disinfectant to inactivate any pathogens
- Use the dust pans or tongs to pick up all of the pads, towels, and spilled fluid, and place the material in a biohazard bag
- Apply additional hospital disinfectant to the involved area of the floor, cover with blue pad, and wait an additional 10 minutes.
- Any residual liquid can now be safely soaked up with additional paper towels.
- Wipe down all horizontal surfaces, including the bed with Bleach wipes.
- Dispose in bio-hazard bag all linens, gowns, scrubs, used towels and cleaning waste etc.

Employee Exposure

CAH Ebola Reference Manual

Employee Exposure – Recommendations from CDC

1. Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected EVD should
 - a. Stop working and immediately wash the affected skin surfaces with soap and water. Mucous membranes (e.g., conjunctiva) should be irrigated with copious amounts of water or eyewash solution
 - b. Immediately contact occupational health/supervisor for assessment and access to postexposure management services for all appropriate pathogens (e.g., Human Immunodeficiency Virus, Hepatitis C, etc.)

2. HCP who develop sudden onset of fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after an unprotected exposure (i.e. not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with EVD should
 - a. Not report to work or should immediately stop working
 - b. Notify their supervisor
 - c. Seek prompt medical evaluation and testing
 - d. Notify local and state health departments
 - e. Comply with work exclusion until they are deemed no longer infectious to others

3. For asymptomatic HCP who had an unprotected exposure (i.e. not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with Ebola HF
 - a. Should receive medical evaluation and follow-up care including fever monitoring twice daily for 21 days after the last known exposure.
 - b. Hospitals should consider policies ensuring twice daily contact with exposed personnel to discuss potential symptoms and document fever checks
 - c. May continue to work while receiving twice daily fever checks, based upon hospital policy and discussion with local, state, and federal public health authorities

Employee Monitoring

CAH Ebola Reference Manual

Employee Monitoring

Per CDC Guidelines in the absence of known exposure or protocol breach (Low Risk Employees)

1. CDC guidelines call for direct active monitoring of all US HCW's who care for Ebola patients
 - a. Temp twice daily, once directly monitored by public health or designated qualified person
 - b. Second temp/symptom check can be reported by phone
 - c. Skype or other remote form of monitoring may be most feasible.
2. Local health authorities are tasked with this monitoring.
 - a. Use provided form or adapted form
 - b. Consider joint monitoring with local public health department. E.g. hospital monitors during on-duty days and public health monitors during off-duty days.
3. Names of employees being monitoring and related health care information remains confidential under Montana law.

Local Health Contacts: Please complete each yellow box and fax to DPHHS after days 7, 14, and 21 at 800-616-7460. Contact DPHHS at 444-0273 immediately if symptoms of concern are identified or patient is lost to follow-up. Thank you for your assistance.

SUBJECT NAME or NUMBER:				ADDRESS:				
HOME PHONE:				DOCTOR/CLINIC THAT WILL EVALUATE:				
CELL PHONE:				WORK LOCATION/CONTACT INFORMATION:				
PREFERRED TIME FOR DAILY CONTACT:				Level of monitoring- circle all that apply	Active Monitoring- One contact per day with subject	Direct Active Monitoring- One direct observation with additional contact daily	Quarantine/Order Y/N	
Please complete log each day after direct contact with the subject or representative. In the event of a symptom of concern, anticipate who will evaluate the patient and review the plan with subject and health care provider. Please contact DPHHS Communicable Disease Program at 444-0273 for assistance.				Subject Risk- circle classification:	High Risk- Direct Contact or recognized high-risk exposure	Some Risk- Household contact or other close contact	Low Risk	

Date of last exposure:		Status (Record reported Temperature and indicate Y or N in appropriate symptom column)											Public Health Actions taken related to symptom monitoring
DATE	Incubation Day	Temperature (F)	Chills	Weakness	Headache	Muscle Aches	Abdominal Pain	Diarrhea x/day	Vomiting	unexplained bleeding	Other/Travel Plans	Any Sx of Concern?	
	1												
	2												
	3												
	4												
	5												
	6												
	7 fax to DPHHS												
	8												
	9												
	10												
	11												
	12												
	13												
	14 Fax to DPHHS												
	15												
	16												
	17												
	18												
	19												
	20												
	21 Fax to DPHHS												
	other												

Local staff contact(s) & Phone: _____

Please fax to DPHHS at 800-616-7460 on day 7, 14 and 21. Contact DPHHS at 444-0273 immediately if symptoms of concern are noted or patient is lost to follow-up.

Comments:

Resources

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CAH Ebola Reference Manual

Resources

CDC

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

NIH

- <http://www.nih.gov/health/ebola.htm>

Montana Dept. of Public Health and Human Services (DPHHS)

- <http://www.dphhs.mt.gov/publichealth/cdepi/ebola.shtml>

Missoula City/County Health Department

- <http://www.co.missoula.mt.us/health/Ebola/ebolamain.htm>

Providence St. Patrick Hospital

- <http://montana.providence.org/hospitals/st-patrick/for-health-care-professionals/ebola-preparedness/>