**Introduction/Purpose:** The purpose of this protocol is to 1) promptly identify patients within Fair Haven Community Health Center (FHCHC), satellite sites, and the community with possible Ebola Virus Disease (EVD), 2) prevent transmission of the Ebola virus or other infectious agent to patients, visitors, healthcare workers and staff at FHCHC and satellite sites, 3) facilitate a safe transfer of patient with possible EVD to Yale-New Haven Hospital (YNHH) where further workup and testing can be performed, and 4) communicate effectively with Connecticut Department of Public Health (DPH), local health departments, EMS, and YNHH Emergency Department.

This protocol is derived from the CDC’s Ebola website at [www.cdc.gov/vhf/ebola](http://www.cdc.gov/vhf/ebola) and the Dear Physician letter from the Connecticut Department of Public Health (DPH) on October 3, 2014. The protocol will be updated as new information and recommendations become available.

**Background:** Ebola virus was first identified in Central Africa in 1976. The natural host of the virus is the fruit bat. Ebola virus is spread to humans from wild animals or by human-to-human transmission. Transmission occurs only when the infected person has symptoms and when there is direct contact with blood or body fluid (urine, faeces, vomitus, sweat, saliva and semen). The virus can enter the body through broken skin or unprotected mucous membranes in, for example, the eyes, nose, or mouth. The incubation period of the virus is between 2 and 21 days (typically 8-10 days). The symptoms of EVD are generally of acute onset and include fever (typically >101.5) and/or weakness, joint or muscle aches, headache, vomiting, diarrhea, and abdominal pain. Late in the course of disease, the patient may develop rash, hemorrhage, respiratory distress and end organ failure.

The current Ebola crisis in West Africa is due, in large part, to the lack of adequate public health and medical infrastructure in the affected countries. Early isolation of infected patients is hindered and patient contacts lack adequate personal protective equipment. Persons traveling to Ebola affected areas (currently Liberia, Sierra Leone, and Guinea) are at risk of contracting EVD if they have close contact with an infected individual. To date, there has been one returned traveler to the US from Liberia who contracted Ebola and became symptomatic upon return to the US. This patient subsequently transmitted the virus to at least one healthcare worker involved in his care.

US health care institutions are preparing to detect and treat any new cases of EVD and to protect those individuals in contact with known or suspected cases. Because the symptoms of Ebola are non-specific and may resemble influenza or other infectious diseases, primary care centers may see patients with the pertinent travel history and symptoms.

**Protocol:**

The protocol recognizes that FHCHC staff may have several potential contact points with a patient with symptoms of EVD or other infectious disease. The protocol is organized by point of patient contact and
opportunity to suspect possible EVD. In all cases, the suspicion for possible EVD will be based on the following three criteria:

1) History of travel to Ebola-affected country (currently Liberia, Sierra Leone, and Guinea) or contact with someone with known or suspected Ebola in the past 21 days.

2) Fever (typically >101.5 F or 38.6 C) and/or

3) Any compatible EVD symptoms (weakness, joint or muscle aches, headache, sore throat, vomiting, diarrhea, abdominal pain or hemorrhage)

1. Triage Call

Who: Any patient with a complaint of fever and/or other symptoms of EVD (weakness, joint or muscle aches, headache, sore throat, vomiting, diarrhea, abdominal pain or hemorrhage).

Ask: The nurse or receptionist receiving the call will ask: “In the past 21 days, have you traveled to Liberia, Sierra Leone, Guinea or had contact with someone with known or suspected Ebola?”

Do: If the patient has a positive travel or contact history, the nurse will obtain from the patient where he or she is calling from (street address, apartment number, and return telephone number) and then instruct the patient that the clinic will call 911. The patient should be instructed to await the arrival of the ambulance and not leave their current location.

The nurse will immediately notify Dr. Wagner, Dr. Anderson and/or another available provider. The provider will contact Connecticut Department of Public Health (DPH) at 860-509-7994 or 860-509-8000 and ask for the infectious disease epidemiologist on call.

After discussion with DPH, the provider may call 911 and instruct the operator that the patient has positive EVD symptoms and direct that the patient be taken by ambulance to the Yale-New Haven Hospital Emergency Department. The provider will then notify Yale-New Haven Hospital Emergency Department at 203-688-2222 so that appropriate precautions may be taken.

2. Front Desk/Appointments

Who: All patients entering the clinic and presenting to the front desk.

Ask: All patients will be asked “In the past 21 days, have you traveled to Liberia, Sierra Leone, Guinea or had contact with someone with known or suspected Ebola?” Signs in English, French, and Spanish will be placed in the clinic entrance and waiting rooms to alert patients to these questions. If the patient answers “No”, the front desk staff will write “N” on the right (R) hand corner of the encounter form.

Do: If the patient answers “yes” to the travel and/or contact history, the front desk will immediately notify the charge nurse who will escort the patient to the designated isolation room in POD 1 (Room 11). The nurse is not required to wear PPE but should avoid direct physical contact with the patient. The patient will be asked not to leave the isolation room. The door should remain closed. The patient will receive a “comfort kit” that includes a urinal, bucket, and water bottle. Anyone who accompanied the patient will be asked to sit in the POD 1 waiting area and will be provided with the necessary information and support.
The charge nurse will then contact Dr. Wagner, Dr. Anderson and/or any available provider to assess the patient.

Entry to the isolation room and contact with the patient will be limited to one healthcare provider (Dr. Wagner, Dr. Anderson and/or any available physician, APRN, PA). On October 20, 2014, CDC updated their guidelines for personal protective equipment (PPE) and procedures for putting on and removing PPE. These guidelines may be found at:

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

**Before entering the isolation room:**

The healthcare provider must don the following personal protective equipment (PPE) which will be stored in the hallway immediately outside Room 11.

- **N95 Respirator**: Single-use (disposable) N95 respirator in combination with single-use (disposable) surgical hood extending to shoulders and single-use (disposable) full face shield.
- Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf.
- Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
- Single-use (disposable), fluid-resistant or impermeable boot covers that extend to at least mid-calf.
- Single-use (disposable), fluid-resistant or impermeable apron that covers the torso to the level of the mid-calf should be used if Ebola patients have vomiting or diarrhea. An apron provides additional protection against exposure of the front of the body to body fluids or excrement.

**Upon entering the room:**

The healthcare provider will:

1) Confirm the patient’s travel history or possible exposure

2) Review patient’s symptoms for symptoms compatible with EBV

3) Obtain the patient’s temperature using a disposable thermometer. The provider should avoid direct physical contact with the patient unless absolutely necessary.

No phlebotomy, laboratory testing or other procedures will be performed at FHCHC on any patient with possible EVD.

**Before exiting the room:**

The provider with the assistance of a trained observer should carefully remove all PPE so as not to contaminate eyes, mucous membranes or clothing with potentially infectious materials. This must be performed in accordance with the CDC guidelines at:

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

A trained observer should be in the hallway immediately outside the room to observe and assist with removal of specific components of PPE. The observer should not participate in any Ebola patient care activities. The following PPE are recommended for trained observers:
■ Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf
■ Single-use (disposable) full face shield.
■ Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
■ Single-use (disposable) fluid-resistant or impermeable shoe covers.

PPE for both the health care worker and trained observer will be discarded in a biohazard bag within the leak proof infectious waste container inside Room 11.

Upon exiting the room:

Hand hygiene will be performed with alcohol based hand rub (ABHR) immediately after removal of all PPE and upon exiting the room. The door to the room will remain shut until after the patient has left and the room and adjacent hallway can be thoroughly cleaned and disinfected.

If the patient has a positive travel or contact history and EVD compatible symptoms, the provider will call the Connecticut Department of Public Health (DPH) at 860-509-7994 or 860-509-8000 and ask for the infectious disease epidemiologist on call. (If the patient has a positive travel or contact history but no pertinent clinical symptoms, DPH is still requesting to be notified.)

After discussion with DPH, the provider may then call EMS (911) and Yale-New Haven Hospital Emergency Department at 203-688-2222 for patient transfer. The patient will be transported out of the clinic through the side door to POD 1.

The provider will next notify the New Haven Health Department at 203-946-8200 (and, if the patient does not reside in New Haven, the health department in the patient’s town of residence).

3. Exam Room

Who: Any patient with fever and/or compatible EVD symptoms (weakness, joint or muscle aches, headache, sore throat, vomiting, diarrhea, abdominal pain or hemorrhage) who was not previously screened for travel history.

Ask: The CA or LPN who first assesses the patient will ask “In the past 21 days, have you traveled to Liberia, Sierra Leone, Guinea or had contact with someone with known or suspected Ebola?”

Do: If there is a positive travel or contact history, the CA or LPN will exit the room and immediately perform hand hygiene with alcohol based hand rub. She or he will then notify the patient’s provider, as well as Dr. Wagner and/or Dr. Anderson. (The CA or LPN will be advised on their own safety precautions.)

The exam room will now become isolated and accessed by only the patient’s healthcare provider. The patient will be asked to remain in the room with the door closed. Anyone accompanying the patient will be escorted to sit in the POD 1 waiting area.

Before entering the isolation room:

The healthcare provider must don the following personal protective equipment (PPE) which will be obtained from hallway storage area immediately outside Room 11.
- **N95 Respirator**: Single-use (disposable) N95 respirator in combination with single-use (disposable) surgical hood extending to shoulders and single-use (disposable) full face shield.
- Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf.
- Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
- Single-use (disposable), fluid-resistant or impermeable boot covers that extend to at least mid-calf.
- Single-use (disposable), fluid-resistant or impermeable apron that covers the torso to the level of the mid-calf should be used if Ebola patients have vomiting or diarrhea. An apron provides additional protection against exposure of the front of the body to body fluids or excrement.

**Upon entering the room:**

The healthcare provider will:

1) Confirm the patient’s travel history or possible exposure

2) Review patient’s symptoms for symptoms compatible with EBV

3) Obtain the patient’s temperature using a disposable thermometer. The provider should avoid direct physical contact with the patient unless absolutely necessary.

No phlebotomy, laboratory testing or other procedures will be performed at FHCHC on any patient with possible EVD.

**Before exiting the room:**

The provider, with the assistance of a trained observer, should carefully remove all PPE so as not to contaminate eyes, mucous membranes or clothing with potentially infectious materials. This must be performed in accordance with the CDC guidelines at:

[http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html](http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html)

A trained observer should be in the hallway immediately outside the room to observe and assist with removal of specific components of PPE. The observer should not participate in any Ebola patient care activities. The following PPE are recommended for trained observers:

- Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf
- Single-use (disposable) full face shield.
- Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
- Single-use (disposable) fluid-resistant or impermeable shoe covers.

PPE for both the health care worker and trained observer will be discarded in a biohazard bag within a leak proof infectious waste container. (This container will be obtained from Room 11.)

**Upon exiting the room:**

Hand hygiene will be performed with alcohol based hand rub (ABHR) immediately after removal of all PPE and upon exiting the room. The door to the room will remain shut until after the patient has left and the room and adjacent hallway can be thoroughly cleaned and disinfected.
If the patient has a positive travel or contact history and EVD compatible symptoms, the provider will call the Connecticut Department of Public Health (DPH) at 860-509-7994 or 860-509-8000 and ask for the infectious disease epidemiologist on call. (If the patient has a positive travel or contact history but no pertinent clinical symptoms, DPH is still requesting to be notified.)

After discussion with DPH, the provider may then call EMS (911) and Yale-New Haven Hospital Emergency Department at 203-688-2222 for patient transfer. The patient will be transported out of the clinic through the side door to POD 1.

The provider will next notify the New Haven Health Department at 203-946-8200 (and, if the patient does not reside in New Haven, the health department in the patient’s town of residence).

4. School Based Health Center (SBHC)

Who: Any student attending school with fever and/or compatible EVD symptoms (muscle pain, sore throat, weakness, headache, vomiting, diarrhea, abdominal pain or hemorrhage)

Ask: The student will be asked “In the past 21 days, have you traveled to Liberia, Sierra Leone, Guinea or had contact with someone with known or suspected Ebola?”

Do: Any student with a positive (or potentially positive) travel or contact history should be immediately placed in a designated isolation room within the SBHC.

The healthcare worker would attempt to corroborate the student’s travel or contact history with the parent or guardian.

If the student has positive travel or contact history and EVD compatible symptoms, the Office Manager/APRN will immediately call the Connecticut Department of Public Health (DPH) at 860-509-7994 or 860-509-8000 and ask for the infectious disease epidemiologist on call.

The school principal will also be notified immediately by telephone.

Following discussion with DPH, the Office Manager/APRN may call EMS (911) and Yale-New Haven Hospital Emergency Department (203-688-2222) for safe transport of the student. The nurse will then notify the New Haven Health Department at 203-946-8200.

If necessary prior to EMS arrival, only one healthcare worker should enter the isolation room. In this scenario, the healthcare worker should don the following personal protective equipment (PPE) which will be stored outside the isolation room.

- **N95 Respirator**: Single-use (disposable) N95 respirator in combination with single-use (disposable) surgical hood extending to shoulders and single-use (disposable) full face shield.
- Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf.
- Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
- Single-use (disposable), fluid-resistant or impermeable boot covers that extend to at least mid-calf.
- Single-use (disposable), fluid-resistant or impermeable apron that covers the torso to the level of the mid-calf should be used if Ebola patients have vomiting or diarrhea. An apron
provides additional protection against exposure of the front of the body to body fluids or excrement.

Before exiting the room, the provider with the assistance of a trained observer should carefully remove all PPE so as not to contaminate eyes, mucous membranes or clothing with potentially infectious materials. The donning and removal of PPE should be performed in accordance with the CDC guidelines at:

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

PPE for both the health care worker and trained observer will be discarded in a biohazard bag within a leak proof infectious waste container inside the isolation room.

Hand hygiene will be performed with alcohol based hand rub (ABHR) immediately after removal of all PPE and upon exiting the room. The door to the isolation room will remain shut until after the room and adjacent hallway can be thoroughly cleaned and disinfected.

**Environmental Cleaning at FHHC and Satellite Clinics**

The room will be thoroughly cleaned and disinfected by facilities staff with Healthcare Hydrogen Peroxide spray (an EPA-registered disinfectant with a label claim for non-enveloped viruses). The alternative cleaner will be dilute bleach. The following should be cleaned and/or disinfected:

1) All surfaces that are visibly contaminated with body fluids including walls and ceiling.
2) All surfaces in the exam room including exam table, chairs, desk, counters, sinks, door handles, computer and keyboard, telephone, floor.

The cleaning of the room will be in accordance with the CDC interim guidelines for environmental infection control: http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html.

The following PPE should be worn when cleaning and disinfecting the room.

- **N95 Respirator**: Single-use (disposable) N95 respirator in combination with single-use (disposable) surgical hood extending to shoulders and single-use (disposable) full face shield.
- Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf.
- Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
- Single-use (disposable), fluid-resistant or impermeable boot covers that extend to at least mid-calf.
- Single-use (disposable), fluid-resistant or impermeable apron that covers the torso to the level of the mid-calf should be used if Ebola patients have vomiting or diarrhea. An apron provides additional protection against exposure of the front of the body to body fluids or excrement.

Before exiting the room, the facilities staff, with a trained observer, will carefully remove all PPE so as not to contaminate eyes, mucous membranes or clothing with potentially infectious materials. PPE, along with any cleaning materials, will be discarded in a biohazard bag within a leak proof infectious waste container. All waste materials should remain in a safe, undisturbed area until the patient is tested for Ebola at Yale-New Haven Hospital.
Ebola is classified as a Category A biohazardous material. The transport and disposal of any materials from a patient with confirmed Ebola from Fair Haven Community Health Center must be in accordance with the following medical waste guidelines: http://www.cdc.gov/vhf/ebola/hcp/medical-waste-management.html

The disinfected isolation room will remain unused for 24 hours or until further notice.