



## **Standard Operating Procedures**

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# **UN Standard Operating Procedures for Ebola Virus Disease Outbreak**

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Approved by: SRSG, UNOCI  
Approval date: November 2014  
Contact: Chief Mission Support

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## **1. INTRODUCTION**

- 1.1. The Outbreak of the Ebola Virus Disease (EVD) was notified to the World Health Organization (WHO) by the Ministry of Health of Guinea on 21 March 2014. The epidemic outbreak propagated further, affecting Liberia, Sierra Leone, Nigeria, Senegal and Mali. The total number of cases (suspected/probable/confirmed) is over 15,000 with more than 5,400 deaths up to 21 November 2014. The United Nations Security Council recognized the EVD outbreak as threatening global health and security at its meeting held on 18 September 2014 and unanimously adopted Resolution 2177 on the establishment of an UN-wide initiative that draws together all assets of all relevant UN agencies to tackle the crisis. Following adoption of the resolution, UN Secretary-General Ban Ki-moon officially announced the establishment of the United Nations Mission for Ebola Emergency Response (UNMEER), based in Accra, Ghana.
- 1.2. The disease progression in countries neighboring Côte d'Ivoire is not yet under control. It is therefore important to take necessary precautions and measures to prevent a spread of the disease in UN installations in this country.

## **2. AIM**

- 2.1. These UN Standard Operating Procedures (SOP) are intended to enable effective and coordinated action between the United Nations Operation in Côte d'Ivoire (UNOCI) Force Medical and UNOCI Medical Section, UNPOL and various UNOCI medical facilities, to prevent, treat and contain the health threat of Ebola Virus Disease. The plan describes specific guidelines and necessary actions for the UN system in Côte d'Ivoire.

## **3. GUIDING PRINCIPLES**

- 3.1. WHO guidelines, definitions, procedures and documentation will be adopted, and will serve as the Best Practice Protocols (see Bibliography).
- 3.2. Statistics from WHO and Ministry of Health of Côte d'Ivoire (MOH) will be used for planning purposes.
- 3.3. Similarly, data regarding UN EVD contacts or suspected, probable and confirmed cases will be reported to UN HQ, WHO and MOH.

## **4. EBOLA IN WEST AFRICA**

- 4.1. The first outbreak of EVD in West Africa was one isolated case in Côte d'Ivoire (affecting a medical researcher) in 1994.
- 4.2. This time the first case was reported in the Guekedou area of Guinea on 21 March 2014. Due to the porous border and frequent movement of people, the disease propagated to Liberia and Sierra Leone.

- 4.3. Guinea and Liberia are the neighboring countries of Côte d'Ivoire on the western side, hence possible propagation of the disease may be predicted. Cases have also recently been reported in Mali.

## **5. EBOLA VIRUS DISEASE (EVD)**

### **5.1. Epidemiology**

- 5.1.1. Ebola virus disease (formerly known as Ebola Hemorrhagic Fever) is one of the most virulent viral diseases. There are five distinct species of the genus Ebola virus: Bundibugyo virus, Zaire virus, Reston virus, Sudan virus and Taï Forest virus. Case fatality rates range between 25 and 90%.
- 5.1.2. The Ebola virus is transmitted by direct contact with the blood, body fluids and tissues of infected persons or corpses. Transmission of the Ebola virus has also occurred by handling sick or dead infected wild animals (chimpanzees, gorillas, monkeys, forest antelope, fruit bats).

### **5.2. Prevention**

- 5.2.1. There is currently no available vaccine for EVD. The following preventive measures are effective:
- Avoid direct physical contact with infected or deceased persons.
  - Wash hands with soap and water as frequently as possible.
  - Avoid direct contact with animals such as fruit bats or monkeys/apes, and the consumption of their meat. Thoroughly cook any other meat.
  - Treat water with chlorine before drinking or drink bottled water.
  - Employ appropriate Personal Protective Equipment (PPE) when screening or treating EVD patients.
- 5.2.2. Do not transport likely EVD patients in your vehicle. Call the medical duty doctor who will arrange an appropriate and properly equipped vehicle and health workers to take the patient safely to a hospital.
- 5.2.3. Report to the UNOCI Medical Unit if you encounter information about a suspected patient. Please call the medical duty officer on phone no: 20233548 / 06203548 or Contact the relevant Ebola Focal point number below.

UNOCI			
ABIDJAN	Dr KPONOU Moise	Chief Medical Officer	05 99 04 82
	Dr TEHEM Jacob	Anesthetist	06 25 23 35
	Dr KOUAME Kouassi René	Surgeon	06 72 18 89
	Dr ACKOUNDZE Simplicie	Cardiologist	46 00 04 62
	Maj Dr Abdullah	Force Medical Officer	05 99 05 04
	Maj Dr Al Maita Mahmoud	MSO (Medical Evacuation)	05 98 02 09
	Maj Dr RAHMAN Sujaur	MSO (Food and Hygiene)	05 74 17 97
DALOA	Dr Chifolo YEO	Medical Officer	05 99 03 60
BOUAKE	Dr Mamy RAELISON	Medical Officer	05 99 06 36

### 5.3. Treatment

- 5.3.1. There is no specific treatment for EVD. Supportive management, with prevention of dehydration, maintenance of oxygen status and limited use of blood and blood products are the mainstay of treatment.

### 5.4. Monitoring of UN Personnel from Ebola Outbreak Countries

- 5.4.1. As at 18 November 2014, the Ministry of Health of the Government of Côte d'Ivoire required that any UN Personnel entering the country from an affected area must be medically cleared on departure (see section 24 on travel advisory for more details), and then undergo medical monitoring for 21 days once in Côte d'Ivoire.
- 5.4.2. In compliance with this directive **UNOCI will, as a first measure, reduce to a minimum any non-essential travel to affected areas.** For authorized travel to affected areas, guidelines provided in para 11.6 and section **Error! Reference source not found.** must be followed.
- 5.4.3. For all UN staff and associated personnel entering the mission from an affected country, UNOCI will ensure that they are received at the point of disembarkation and medically cleared by the UNOCI local medical Ebola Team.
- 5.4.4. For a period of 21 days following their entry into Côte d'Ivoire, the UN staff or associated personnel should present him/herself once, daily to the closest UN medical facility to record his/her body temperature . If the body temperature is found to be more than 38.5 C then the person should be isolated and evaluated by lab testing of blood sample for EVD.

- 5.4.5. For Military and FPU contingent members, medical monitoring should be performed in consultation with the Chief Military or Police Medical Officer by military or police medical staff.

## **5.5. Quarantine of UN Personnel**

- 5.5.1. Per 7.3.2, if a patient needs to be placed in quarantine, the following measures should be taken:
- 5.5.2. The conditions of quarantine should, at a minimum, ensure that the quarantined staff and personnel have adequate access to: appropriate UN standard accommodation and life support; medical support; recreational facilities (TV, exercise facilities); psychosocial support (to support isolated conditions); communications equipment (phone, internet, radio); support to family members if appropriate; and work stations (computer for continuing work).
- 5.5.3. The body temperature of the person under quarantine is to be checked and recorded by UNOCI medical personnel on a twice daily basis. If the body temperature is found to be more than 38.5 C then the person should be isolated and evaluated by lab testing of blood sample for EVD.
- 5.5.4. The appropriate place of quarantine should be identified by the Administration for all personnel, as designated by the Chief Mission Support. **Private residence will not be allowed during quarantine period.**
- 5.5.5. For Military and FPU contingent members where quarantine in existing military accommodation is not practical in terms of maintaining limited contact with other people, accommodation will be provided by UNOCI, to the standards outlined in 5.5.3, and food will be provided through the Mission rations provider. Medical monitoring should be performed in consultation with the Chief Military or Police Medical Officer by military or police medical staff, and rations should be brought to the quarantine area by Military and FPU contingent members.
- 5.5.6. It is noted that for UNPOL members, Military Staff Officers or Military Observers, the individual will receive MSA at the minimum rate during the quarantine period.
- 5.5.7. During the period of quarantine, any family member or friend is allowed to visit the staff member, under guidance from medical staff.
- 5.5.8. The staff member should respect the quarantine conditions and avoid moving from the quarantine area. Security supervision will be provided to avoid uncontrolled movement.

## **5.6. Clinical Course of EVD**

- 5.6.1. Incubation period: 2 to 21 days

- 5.6.2. Day 1-2: Patient presents with fever up to 39°C, profuse sweating, malaise and prostration, frontal and temporal headache, myalgia, ocular pain, and conjunctival injection. Relative bradycardia accompanies fever. Nausea and profuse vomiting, watery diarrhea, and diffuse abdominal pain occur. Within 2 days blood may appear both in vomitus and in stools.
- 5.6.3. Day 3-6: Enlargement of occipital, nuchal, cervical, and axillary lymph nodes may be noticed. Sore throat with difficulty in swallowing is frequent. Soft palate may display enanthema. Dehydration is usually clinically evident at this stage.
- 5.6.4. Day 5-7: About fifty percent of patients display fulminant hemorrhagic diathesis with spontaneous epistaxis, gingival hemorrhage, gastro-intestinal and genital bleeding (female), hematuria and bleeding at injection sites. Conjunctiva hemorrhage is frequent. Erythematous rash, spreading from the face and buttocks to the trunk and arms, may develop from a papular to maculopapular lesion in 24 hours. Lesions become confluent and non-itchy.
- 5.6.5. Day 8-16: The occurrence of persistent hiccups, almost always associated with poor prognosis. Dehydration is severe in the absence of supportive care. Most deaths occur around day 12 with clinical evidence of multi-organ failure, in particular kidney and liver failure. Edema may be present. Central Nervous System involvement, including coma, and terminal shock syndrome immediately precede death.
- 5.6.6. Recovery: Among those who recover, the rash usually disappears around day 12; palmar and plantar desquamation occurs at day 14-16. Immediate after-effects may involve orchitis, recurrent hepatitis, transverse myelitis or uveitis.

## 6. DEFINITIONS

### 6.1. Personnel Categories

- 6.1.1. **UN international staff members and UN locally recruited staff members:** UN International staff members are hereby defined as international civilian staff and their dependents, including United Nations Volunteers, UNPOL members, Military Observers and Military Staff Officers. UN locally recruited staff members are hereby defined as UN personnel locally recruited and their dependents. UN international staff members and UN locally recruited staff members are also defined for the purpose of this document as “UN staff members”.
- 6.1.2. **UN associated personnel:** For the purpose of this document, UN associated personnel are hereby defined as UN contractors and their personnel, as well as Independent Contractors.

6.1.3. **Military contingent members:** Military contingent members consist of military (uniformed) and civilian personnel made available to UNOCI by participating Troop Contributing Countries (TCCs).

6.1.4. **FPU contingent members:** FPU Contingent members are uniformed personnel made available to UNOCI by participating Police contributing countries, part of the Police component of UNOCI.

## 6.2. Case

6.2.1. Once laboratory investigations have confirmed the diagnosis of EVD in the initial cases, the clinical/epidemiological case definitions are to be used for further cases. These definitions are to be used for control purposes in the absence of systematic laboratory confirmation.

## 6.3. Contact

6.3.1. A person without any symptoms, but who has had physical contact with a case, or the body fluids of a case within the last three weeks. “Contact” is defined as at least one of the following:

- has slept in the same household with a case (patient)
- has had direct physical contact with a case (patient) or touched his/her body fluids during the illness
- has had direct physical contact with the dead body (died of EVD) at the funeral
- has touched used clothes or linens of a case
- has been breastfed by the patient (baby)
- has had direct physical contact with a sick or dead animal, or its body fluids
- has eaten raw bush-meat
- has had direct contact with specimens collected from suspected Ebola patients or suspected Ebola animal cases

6.3.2. A contact may progress to be a suspected / probable / confirmed case, or they may complete a period of observation without developing any symptoms.

## 6.4. Suspected case

6.4.1. There are four ways that a person can be categorized as a “suspected case”:

- Any person, alive or dead, suffering or having suffered from a sudden onset of high fever and with a history of recent contact with a suspected, probable, or confirmed Ebola case; an EVD corpse; or a sick animal, OR



- Any person with sudden onset of high fever (>38.5°C or 101°F) and at least three of the following symptoms: (Headaches, Vomiting, Anorexia / loss of appetite, Diarrhea, Lethargy, Stomach pain, Aching muscles or joints, Difficulty swallowing, Breathing difficulties, Hiccups /Hiccoughs), OR
- Any person with inexplicable bleeding, OR
- Any sudden, inexplicable death.

#### **6.5. Probable case**

- 6.5.1. Any suspected EVD case evaluated by a clinician, having an epidemiological link with a confirmed case, OR
- 6.5.2. Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) that has an epidemiological link with a confirmed case.
- 6.5.3. The distinction between a suspected case and a probable case in practice is relatively less important as far as outbreak control is concerned.

#### **6.6. Laboratory Confirmed Case**

- 6.6.1. Any suspected or probable cases with a positive laboratory result.
- 6.6.2. Laboratory-confirmed cases must test positive for the virus antigen, either by detection of virus RNA by reverse transcriptase-polymerase chain reaction (RT-PCR), or by detection of IgM antibodies directed against Ebola.

#### **6.7. Non-Case**

- 6.7.1. A non-case is any suspected or probable case with a negative laboratory result. Non-cases are those which showed no specific antibodies, RNA, or specific detectable antigens.
- 6.7.2. NOTE: if a blood sample is collected, suspected and probable cases will eventually be definitively classified as “confirmed” or “non-cases” according to the laboratory test result.

### **7. SEQUENCE OF ACTIONS / GUIDING PRINCIPLES**

- 7.1. Personnel belonging to categories of personnel set out in paragraph 6.1 herein should call the UN Medical doctor in case they suffer from any of the symptoms of EVD, and should avoid contact with other persons until medically assessed. For example, personnel with symptoms should remain at home, using telephone contact to alert colleagues of their situation. If first symptoms appear whilst in the office or in the field, immediately minimize contact with other personnel, and seek advice by telephone.

7.2. The case of personnel presenting in a UN medical facility with symptoms of EVD is addressed in the next section.

### **7.3. Contact**

- 7.3.1. Persons with percutaneous or mucous cutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected EVD should 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.
- 7.3.2. Contacts should be under quarantine at a location in line with section 5.5.5, with body temperature checks at least twice daily for 21 days after last exposure.
- 7.3.3. Contacts who are asymptomatic are not “cases” or “patients” and are not considered to pose a risk of transmission. Prophylactic antiviral therapy for asymptomatic exposed persons is not recommended.
- 7.3.4. In the case of a temperature above 38.5°C (101°F), the staff member will make a phone call to the UN Medical Officer who will arrange transport for the patient to a suitable medical facility. This patient will now be considered a suspected case and put in strict isolation.
- 7.3.5. If for 21 days after the last exposure, contacts have no fever or EVD symptoms, surveillance will be discontinued.
- 7.3.6. If subsequent test results rule out EVD in the suspected case, surveillance for contacts can be discontinued before 21 days have passed.

### **7.4. Suspected and Probable Cases**

- 7.4.1. Staff member or supervisor must immediately notify UNOCI CMO / FMO, who in turn will notify UNOCI Force, UNPOL and UNOCI administration and the UN entity head of administration as appropriate and the Medical Director in UNHQ (medicaldirector@un.org), as well as the local WHO Representative and Ministry of Health of Côte d’Ivoire.
- 7.4.2. Isolate the patient at nearest UN medical facility that has appropriate infection control measures.
- 7.4.3. All health workers must comply with WHO infection control guidelines when caring for patients with probable or suspected Ebola.
- 7.4.4. Consult with WHO and local health officials to initiate contact tracing. UN medical personnel will undertake immediate contact tracing within the UN population.

### **7.5. Confirmed case**

- 7.5.1. Supportive treatment initiated, as well as the ongoing isolation, infection control and contact tracing measures as for suspected and probable cases.

## 7.6. Convalescent Patients

- 7.6.1. Upon determination by the treating doctor, patients must remain isolated at the facility or at home until they have fully recovered. Prior to release, a minimum of 7 days without fever and 21 days from onset of illness is required.
- 7.6.2. Men can continue to secrete Ebola Virus in semen for up to 7 weeks after recovery, and so should refrain from unprotected intercourse for this period of time.
- 7.6.3. Based on a case to case evaluation, the CMO may recommend that a recovering male UN Staff member be followed-up within Mission area for up to 7 weeks (rather than 3 weeks), and retested.

## 7.7. Rapid Intervention Team (RIT)

- 7.7.1. The RIT is composed of ONUCI Medical and counseling staff members prepared for urgent intervention at home or in a location where a staff member requires health care while suspected of EVD.
- 7.7.2. The Team is composed of a Medical Officer, Nurse, Staff Counselor and Ambulance driver. An Auxiliary Nurse may be required.

## 8. UNOCI MEDICAL RESOURCES

### 8.1. UNOCI Medical Facility and Isolation rooms

Serial	Unit	Medical Setup	Location	Isolation facility	Remarks
1.	FHQ (UNOE)	Level 1+	Sebroko/Abidjan	✓	2 isolation rooms (each with 4 beds)
2.	BANFPU2	Level 1	Yamoussoukro	×	
3.	BANTF 1	Level 1	Zuenoula	×	
4.	BANBATT3	Level 1	Man	×	Proposed to have Isolation
5.	BANMED	Level 2	Daloa	✓	2 isolation rooms (6 beds and 2 beds)
6.	BENINBATT	Level 1	Abidjan	×	
7.	EGYPTENGR	Level 1	Yamoussoukro	×	
8.	JORDBATT	Level 1	Abidjan	×	
9.	MAUFPU	Level 1	Bouake	×	
10.	MORBATT	Level 1	Duekoue	×	Proposed to have Isolation
11.	NIGBATT	Level 1	Gagnoa	×	Proposed to have Isolation
12.	PAKENGR	Level 1	Bouake	×	
13.	PAKFPU	Level 1	Guiglo	×	

14.	PAKTMU	Level 1	Bouake	×	
15.	PAKBATT	Level 1	Bouake	×	
16.	SENBATT	Level 1	Yamoussoukro	×	
17.	TOGOBATT	Level 1	Abidjan	×	
18.	UNOE	Level 1	Bouake	✓	1 isolation room (4 beds)
19.	GhanMed	Level 2	Bouake	x	

## 9. SCENARIOS

9.1. Scenarios are depicted if the staff member is coming from an EVD affected country

### 9.2. UN Staff member feels sick while at work

9.2.1. The UN staff member will either call the duty doctor him or herself, or will inform the supervisor who will contact the duty doctor. The supervisor will keep the patient in a separate room, and wait for arrival of medical staff.

9.2.2. The **Rapid Intervention Team (RIT)** will arrive (with PPE, in a suitably equipped ambulance) and assess the patient. If the patient falls within the definition of suspected / probable case, they will inform CMO office and arrange transport to isolation facility.

9.2.3. The hospital treating physician will start treatment accordingly and liaise with CMO for notification of the patient to WHO and Ivorian Ministry of Health.

9.2.4. Isolation beds for UN locally recruited staff members will be allocated based on their proportion to UN international civilian staff and Experts on Mission. The ratio is approximately 1:5. So at an isolation facility with 6 beds, one bed may be allotted to a UN locally recruited staff member with Ebola. Any subsequent UN locally recruited staff members will be transported by the UNOCI Ebola Team to the nearest Government Hospital. **UNOCI Medical Section will ensure that admission of the locally recruited staff in Government Hospitals is facilitated.**

9.2.5. Contact tracing will be initiated.

### 9.3. UN Staff Member (including dependents) feels sick while at home

9.3.1. The sick staff member will inform his or her supervisor and then either the staff member or their supervisor will call the duty doctor (FMO or CMO as appropriate), providing their address and contact details.

9.3.2. The duty doctor will dispatch the UNOCI Ebola Medical team to the staff member's home, (with PPE in a suitably equipped ambulance) and assess the patient. If the patient falls within the definition of suspected / probable case, they will inform CMO/FMO office and arrange transport to isolation facility. The procedure is then as 12.1 onwards.

#### **9.4. UN associated personnel feels sick while at work**

- 9.4.1. The sick UN associated personnel or his or her supervisor will call the duty doctor, and isolate the patient in a room. The duty doctor will dispatch the UNOCI Ebola Medical Team who will assess the patient. If he falls within the definition of Suspect or Probable case, the team will inform the CMO.
- 9.4.2. The CMO will coordinate with nearest Ivorian Government Hospital and instruct the UNOCI Ebola Medical Team to take the patient to that hospital.
- 9.4.3. Contact tracing will be initiated.

#### **9.5. UN associated personnel feel sick while at home**

- 9.5.1. This is relevant for all UN associated personnel working in UNOCI and the UNCT.
- 9.5.2. If any UN associated personnel feels sick while at home, he / she should not come to work, nor should he /she directly report to hospital or clinic.
- 9.5.3. The patient should either call the duty doctor, or inform his supervisor who will then talk to the duty doctor.
- 9.5.4. The UNOCI Ebola Medical Team will be sent to the residence of the patient and his assessment carried out. CMO will be informed accordingly.
- 9.5.5. The patient will be accordingly transported to the Government healthcare facility.
- 9.5.6. Contact tracing will be initiated.

#### **9.6. UNOCI Military / FPU contingent member feels sick**

- 9.6.1. The patient will seek medical attention from the Unit Level 1 hospital
- 9.6.2. The doctor or paramedic will assess the patient and if he or she falls within the definition of suspected or probable case, the doctor or paramedic will immediately isolate the patient in the isolation facility. If an isolation facility is not available at the location, then the patient may be isolated in any separate room.
- 9.6.3. After isolation, the doctor will inform the FMO / CMO, who will instruct on where to keep the patient for treatment. The Medical Expansion plan will be activated, and the manpower and resources for that Level 1 hospital will be augmented.
- 9.6.4. Contact tracing will be initiated.

#### **9.7. UNPOL team site member feels sick**

- 9.7.1. The patient will seek medical attention from the designated Level 1 hospital for that Team Site.
- 9.7.2. The doctor or paramedic will assess the patient and if he or she falls within the definition of suspected or probable case will immediately isolate the patient in the isolation facility. If an isolation facility is not available at the location, then the patient may be isolated in any separate room.
- 9.7.3. After isolation, the doctor will inform the CMO, who will instruct on where to isolate the patient for treatment. The Medical Expansion plan will be activated, and the manpower and resources for that Level 1 hospital will be augmented.
- 9.7.4. Contact tracing will be initiated.

**9.8. UN International Staff member (including dependents) feels sick while abroad for annual leave or official travel**

- 9.8.1. Travel screening for travel out of Ebola-affected counties has been instituted to prevent spread of Ebola to other countries. With effective screening, such an occurrence is highly unlikely.
- 9.8.2. However, if the UN International staff member feels sick and develops EVD like symptoms while abroad, he or she should follow the rule of 21 days quarantine before arrival in Côte d'Ivoire. He or she should seek medical care at the nearest UN / local government hospital, and inform the treating physician at once that he/she has recently travelled from an area of ongoing Ebola outbreak.
- 9.8.3. She or he should also inform UNOCI Chief Medical Officer (by phone or email).

**9.9. Dependent of UN locally recruited Staff, or Associated Personnel is declared EVD suspected, probable or confirmed case**

- 9.9.1. The UNOCI locally recruited staff member will immediately inform his or her supervisor. He/she will be instructed to stay at home. The UNOCI Ebola Medical Team will visit the concerned staff member at home and assess him/her and his/her or dependents.
- 9.9.2. If the UN locally recruited staff member is discovered to be symptomatic for EVD (fever, bleeding etc.), he/she will be classified as a probable/suspected case, and treated accordingly after isolation in a place as per entitlement.
- 9.9.3. Contact tracing will be initiated at UNOCI and the UNCT.

## **10. DECLARATION OF A PATIENT AS CONTACT, SUSPECT, PROBABLE OR CONFIRMED CASE**

- 10.1. To ensure uniformity in interpretation of WHO definitions, all treating physicians will consult with CMO about their patient, who will then assign the appropriate category to each patient.
- 10.2. A positive laboratory result will eventually make the tested patient a Confirmed case.
- 10.3. At every revision of diagnosis, FMO / CMO shall be informed, so that relevant data can be updated to WHO / MOH.

## **11. RISK MANAGEMENT OF UN STAFF AND CONTINGENT MEMBERS RETURNING FROM, OR TRAVELLING TO EBOLA AFFECTED COUNTRIES.**

- 11.1. During the period of EVD alert, the receptionist in all UNOCI Medical Facility will ask **all** Personnel who present unwell if they have been to the EVD outbreak area in the last 21 days. Posters/notices that ask patients to immediately inform receptionist if they are ill and recently travelled to the area will also be displayed.
- 11.2. Personnel presenting to UNOCI Medical facility reception unwell and without a history of recent travel to affected areas will be directed to waiting room as per usual process.
- 11.3. For personnel presenting to UNOCI Medical facility reception UNWELL and with recent travel to EVD affected countries:**
  - 11.3.1. Staff member is given a mask by receptionist to put on, and is directed immediately to the designated isolation room.
  - 11.3.2. Reception notifies nurse that there is a patient in isolation room that is unwell and with a history of recent travel to EVD outbreak area.
  - 11.3.3. The nurse notifies the UNOCI Doctor.
  - 11.3.4. The nurse performs hand hygiene with an alcohol-based hand-rub solution (20-30 seconds) or soap, running water and single-use towels (40-60 seconds) and carefully dons full personal protective equipment (PPE) prior to entering the isolation room (Annex 1) using the buddy system.
  - 11.3.5. Nurse enters isolation room and conducts risk assessment using Return From Ebola Outbreak Area questionnaire (Annex 2). Temperature is measured with non-contact infrared thermometer (that meets international standards). Once evaluation is complete, nurse reports by phone to UNOCI Doctor, who will contact the relevant health authority following the national protocol for management and notification of EVD and determine if transfer to a local healthcare facility (isolation or UNOCI Ebola Treatment Unit (ETU)) is required

for further assessment. If there is no need to refer patient, advice will be given for monitoring and follow-up before discharge.

- 11.3.6. If after review of the case with the local health authorities and following the local protocols, it is determined by the UN Doctor that the staff member should be transferred for evaluation to an isolation facility or UNOCI ETU, transport should be arranged according to national protocol.
- 11.3.7. Immediately following, the nurse will inform Security and the CMS about the relevant action taken. Records of all these activities should be kept in the patient file.
- 11.3.8. Once the evaluation is complete the nurse will remove PPE according to protocol (Annex 1), discard it in a biohazard container and perform hand hygiene with soap and water or alcohol based hand rubs as previously described.
- 11.3.9. With any suspected case, no one should enter the Isolation Room except the nurse doing the assessment, unless medically indicated.
- 11.3.10. The information will be documented in the patient's file and the nurse will fill in a log with information of healthcare personnel that assisted the Personnel. This should include:
- 11.3.11. Name and Index number of staff member that was referred for further evaluation (include all personal contact details and emergency contact).
- 11.3.12. A list of all clinical and administrative staff at UNOCI Clinic that assisted the Personnel. This will be used as reference for follow-up in contact tracing if required.
- 11.3.13. Contact details including direct phone numbers of relevant local health authorities should be made easily accessible to UNOCI Medical facility staff to facilitate coordination and referrals.

#### **11.4. Personnel presenting to UN Medical Facility without illness but having been to EVD affected country or concerned about exposure.**

- 11.4.1. **At Reception:** The receptionist will ask if unwell. If UNWELL- follow the instructions as described above in 11.3. If NO symptoms:
- 11.4.2. Reception will notify the nurse that there is an asymptomatic staff member with travel history to the EVD affected area waiting for evaluation.
- 11.4.3. Nurse will notify the UN Doctor and proceed to conduct risk assessment using **Return From Ebola Outbreak Areas questionnaire** (Annex 2). If the nurse determines there is no indication of significant exposure and the Personnel is asymptomatic, then they will discuss with UN Doctor, classifying the staff member at "no known risk", and the Personnel will be released, and requested to return for monitoring once a day for 21 days (per 5.4).



- 11.4.4. When completed, the Return from Ebola Outbreak Areas form original should be kept in patient's file and uploaded as a document on Earthmed.

**11.5. Personnel travelling to an EVD affected country.**

- 11.5.1. All personnel are to be given travel advice to the region as per MSD guidance and should be advised on the need to evaluate criticality of duty travel with supervisor in their respective organization (this should be documented in the patient's file).
- 11.5.2. Personnel will complete the **Travel INTO Ebola Outbreak Areas questionnaire** (Annex 3) together with the nurse.
- 11.5.3. The nurse will review the case with the treatment room doctor who will determine if travel clearance is granted or denied based on the MSD Health Risk Mitigation Plan for UN Staff on Duty Travel to EVD Affected Countries as summarized in Annex 4 .
- 11.5.4. Once cleared, nurse will provide them with the following supporting documents as part of the briefing prior to travel:
- 11.5.5. Travel Health Advisory for UN Staff or Personnel Travelling to Ebola-Affected Countries (Annex 5)
- 11.5.6. Ebola FAQs for UN Personnel (Annex 6)
- 11.5.7. WHO: Steps to put and remove personal protective equipment. (Annex 1)
- 11.5.8. Ebola Response Psychosocial Self-Care. Staff Counsellor's office (Annex 7)
- 11.5.9. The nurse will provide the staff member with the EXIT from Ebola outbreak Areas questionnaire (Annex 8) and instruct them to have the form completed by the UN Medical Officer, before exiting the EVD affected country. The form should then be sent by the staff member to the UN Doctor at the receiving/returning duty station.

**11.6. Follow-up for staff members returning from an EVD affected country.**

- 11.6.1. The healthcare worker that completed the Travel to an Ebola outbreak area questionnaire will contact the staff member on day 1 after leaving one of the affected countries (as indicated by surveillance report) and will:
- 11.6.2. Review the Exit questionnaire completed by the medical officer before leaving the affected country.
- 11.6.3. Complete the Return from Ebola outbreak areas questionnaire with the staff member.

- 11.6.4. If there is no indication of symptoms or of EVD exposure, the risk will be classified as “No Known Risk”.
- 11.6.5. If the staff member presents fever or EVD compatible symptoms with or without a history of possible exposure to EVD, the nurse will contact the UN Doctor for isolation and further decision.
- 11.6.6. This should be considered a suspected case which requires testing and further investigation to rule out EVD.

### **11.7. Practice management in support of EVD SOP**

11.7.1. The following practical measures are to be put in place by UNOCI Clinical and support staff.

11.7.2. Equipment:

- Masks at Reception Desk
- Sets of PPE will be kept in each clinical room (isolation room, nurses’ rooms, medical officer’s clinical rooms and emergency bags).

11.7.3. The treatment rooms and isolation room will each have the following:

- An ‘Isolation – Do not Enter’ sign should be placed outside the isolation room which will only be used for this purpose.
- Infrared thermometer (FDA-regulated or CE-Marked infrared thermometers will not need to have temperature confirmed).
- A spray bottle of chlorine 5% solution
- Bedpans and urinals if isolation does not have private bathroom
- Kidney-shaped emesis pans
- PPE kits
- biohazard container
- telephone

### **11.8. Surveillance**

11.8.1. A list of countries considered to be risk areas will be updated by the UN Doctor and kept at reception.

11.8.2. For UN Clinics with access to Earthmed a report for surveillance of staff members returning from an EVD affected area has been created (UNHQ Ebola contact list) based on the information entered on travel clearances. The report can

be generated by a designated nurse and will include a list of staff who should be contacted daily.

- 11.8.3. The information for follow-up will be forwarded to the nurse who completed the Travel INTO Ebola Outbreak Areas questionnaire with the staff member prior to travel, who will then proceed to contact the staff member and provide the advice, and follow-up.

## **12. DECLARATION AS EBOLA TREATMENT UNIT**

- 12.1. Once an EVD suspected, probable or confirmed case is admitted in a Level 1, 1+ or 2 Hospital, it will be declared as the Ebola Treatment Unit for UNOCI (UN staff, Experts on Mission and Military members) for that location. The particular medical facility will then stop treating non-EVD patients, who will be referred to other co-located or nearest Level 1 or 2 Hospital.
- 12.2. When a level 2 hospital becomes the designated Ebola treatment Center, non-EVD patients requiring specialized treatment will either be shifted to an alternate UNOCI Level 2 hospital, or be Medevac-ed to Level 3 Hospital in Abidjan, as per CMO directives.

## **13. ENTITLEMENT FOR EVD TREATMENT**

- 13.1. UNInternational civilian staff members including UNVs and their dependents, Military Observers and Staff officers, and UNPOL members (including FPU contingent members) as well as Military Contingent members will be treated at UNOCI Medical facilities. UN locally recruited staff will be treated if vacant beds are available. In case UNOCI facilities are overwhelmed, UN locally recruited staff will be referred to Ivorian Government medical facilities.
- 13.2. UN associated personnel including contractor staff and Individual contractors as well as UN locally recruited staff dependents will receive treatment at Ivorian Government medical facilities.

## **14. PSYCHOSOCIAL ASPECTS OF EVD**

- 14.1. The psychosocial aspects of the Ebola virus disease should be taken into account and addressed properly since psychological reactions may occur during all phases.
- 14.2. Direct psychological reactions of distress (anxiety, panic, denial) related to the release of the contingency plan and later, may occur. The consequences of the epidemic – psychological and financial burden of the illness, death, drastic changes in the socio-behavioral and cultural patterns stemming from the virus containment measures (movement restrictions, people wearing masks and PPE, decrease of direct inter-personal contacts, changes in the cultural mourning and bereavement processes) – may add to the

distress of the population and create major crisis situations if they are not addressed in a culturally sensitive manner.

14.3. The UNOCI Senior Staff Counselor, as a member of the Crisis Management Team, is responsible for the coordination, planning, and implementation of psychosocial interventions.

14.4. The psychosocial needs of UN staff should be addressed at all stages of the pandemic.

**14.5. Preparedness:**

14.5.1. Comprising of sensitization and information strategies on EVD, including the potential psychological reactions of staff.

14.5.2. Joint activities with the Medical section on EVD preventive measures and the psychological impact of the threat in order to provide comprehensive awareness to staff.

14.5.3. Capacities should be built at the country level to address the psychosocial well-being of staff in a manner that promotes self-reliance. This would be facilitated mostly by the Critical Incident Stress Intervention Cells composed of Peer Helpers who are trained and supervised by the ONUCI Staff Counsellors. The cell is technically managed by the Senior Staff in the Mission.

**14.6. During EVD confirmed cases /outbreak declared**

14.6.1. Ongoing assessment and monitoring of staff psychosocial needs will be ensured throughout the crisis at all levels.

14.6.2. Appropriate psychosocial services (preventative and reactive) should be provided to all staff in need in Abidjan and in the sectors. Referral when appropriate.

14.6.3. Provision of professional support and follow up to staff in isolation and/or dependents.

14.6.4. Professional services will range from implementing self-help strategies, phone counselling, individual interventions, family support, staff support groups, to providing culturally sound counseling including grief sessions for bereaved families.

**14.7. After the crisis: the pandemic is under control**

14.7.1. Follow up in order to:

- Maintain the flow of accurate, timely information through identification of focal points at all level and the production of education and information material (e.g., newsletters, web page updates);
- Ensure continuing support to caregivers and managers (e.g., coaching, buddy system, and staff support groups);

- Facilitate a smooth transition of staff back to work;
- Continue the provision of counseling services, including bereavement counseling services, through implementation of an efficient tracking system of staff and dependents;
- Follow up staff and delayed referrals when necessary;
- Draw lessons learned from the crisis at all levels.

## **15. MEDEVAC / REFERRAL**

- 15.1. The mainstay of treatment of EVD is supportive especially maintenance of hydration, and relief of symptoms such as fever and pain. So far these can be satisfactorily managed in any UNOCI Medical facility; there will be no need of MEDEVAC or referral from Level 1 to Level 2 hospitals.
- 15.2. Such a movement is hazardous and risks further transmission of the disease to persons involved.
- 15.3. In case of need for transfer of a patient, UNOCI Chief Medical Officer may authorize MEDEVAC. This will be decided on case-by-case basis judging the requirement and practical situation.

## **16. POOLING OF RESOURCES**

- 16.1. Treatment of EVD outbreak at any location may overwhelm any medical facility. To effectively and promptly reinforce treating facilities, resources of UN, UNPOL and Military hospitals (manpower, medical supplies, PPE, etc.) will be pooled and redistributed under the guidance of the Chief Medical Officer (CMO).

## **17. PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- 17.1. The following is the list of Personal Protective Equipment recommended to be employed while treating EVD patients.
- Impervious disposable gown
  - Gloves (sterilized surgical or non-sterilized examination gloves)
  - Face shield or face mask with goggles
  - Rubber boots
  - Plastic apron
  - Head cover

- 17.2. Gloves and surgical face masks are included in the standard medical supplies and form part of Self Sustainment for every Level 1 and 2 hospital. As such, every Military and FPU hospital must have their own supplies. If the supplies run out, UNOCI Medical Section will provide emergency supplies in case a facility is actually treating Ebola patients.
- 17.3. PPE gowns, protective goggles and rubber boots will be supplied by UNOCI. Priority will be given to hospitals in special zone and to hospitals with larger isolation areas. Reserve stock will be kept at Level 1+ hospital, Sebroko, Abidjan which will be utilized as per instruction of CMO.
- 17.4. As per recent experience, an isolation facility requires 20-30 sets of PPE per day (disposable gowns, gloves and masks) while actively treating an admitted EVD patient. It is therefore imperative that the treating facility inform CMO early for resupply.
- 17.5. Protective goggles and rubber boots are re-usable after suitable disinfection.
- 17.6. All Level 1 hospitals will have 5 sets of PPEs each during the preparatory phase and will be augmented as required.
- 17.7. Every Level 2 hospitals will have at least 5 days' worth of PPE sets in reserve (150 sets), for their own use, as well as to resupply Level 1 hospitals on short notice.
- 17.8. In case of an EVD patient admitted to a Level 1 or 2 hospital, main resupply will be from stock of Level 1+ hospital, Sebroko, Abidjan. UNOCI will arrange and keep in reserve PPE sets for a treatment period of 10 days (500-600 sets).

## **18. INTRAVENOUS FLUIDS**

- 18.1. Dehydration is often the most serious condition requiring treatment in EVD. 3-6 liters of intravenous fluids may be required for each patient in 24 hours.
- 18.2. Required fluids are usually 0.9% NaCl, 5% and 10% Dextrose, Ringer's lactate solution and Dextrose Saline.
- 18.3. Sufficient stores should be available at every Medical facility along with central UNOCI reserves in Abidjan.

## **19. BLOOD AND BLOOD PRODUCTS**

- 19.1. Blood and blood products do not form a large part of EVD management.
- 19.2. UNOCI Medical Section should keep adequate reserve of red cell Concentrate and make it available to all the centers as deemed necessary by CMO.

## **20. LABORATORY TESTING FOR EVD**

- 20.1. The Institute Pasteur, Abidjan carries out testing for Ebola. Test turnover time is approximately 24 hours.
- 20.2. Samples will be collected by each Medical facility observing necessary precautions, and on the advice of the CMO.
- 20.3. Samples will be transported to Abidjan by means to be decided by the CMO on a case to case basis.

## **21. CLEANING, DISINFECTION AND MEDICAL WASTE.**

- 21.1. Local regulations for environmental cleaning should be followed at each Duty Station.
- 21.2. UN Clinics should have cleaning and disinfection procedures clearly outlined for the Clinic facilities and should have arrangements in place for adequate disposal of medical waste according to international standards and complying with national regulations.
- 21.3. Cleaning services must provide adequate training and protective equipment to cleaning staff to ensure safe procedures are being followed. The following WHO recommendations provide a general guidance:

*Cleaners should wear rubber gloves, impermeable gown and boots and in addition, facial protection when undertaking activities with increased risk of splashes or in which contact with blood and body fluids is anticipated, including handling of linen. Contaminated environmental surfaces or objects should be cleaned and then disinfected as soon as possible using standard hospital detergents/disinfectants (e.g. a 0.5% chlorine solution). Floors and horizontal work surfaces should be cleaned at least once a day with clean water and detergent. Spraying (i.e. fog) occupied or unoccupied clinical areas with disinfectant should not be done because it is a potentially dangerous practice with no proven disease-control benefit.*

*Soiled linen should be placed in clearly labelled, leak-proof bags or buckets at the site of use and the container surfaces should be disinfected before transporting directly to the laundry area and laundering promptly with water and detergent. For low-temperature laundering, wash linen with detergent and water, rinse and then soak in 0.5% chlorine for approximately 30 minutes. Linen should then be dried according to routine standards and procedures.*

*Waste should be segregated at point of generation to enable appropriate and safe handling. All solid, non-sharp, infectious waste should be collected in leak-proof waste bags and covered bins.*

## **22. BURIAL AND HANDLING OF MORTAL REMAINS**

- 22.1. In case of death of UN staff, the mortal remains will be collected by a team from MOH.  
*(To be confirmed with the national authorities.)*
- 22.2. The latest WHO guidance is that EVD victims should be buried in Côte d'Ivoire, close to the place of death. This will be determined on a case-by-case basis in consultation with UNHQ.

## **23. CASE REPORTING AND CONTACT TRACING**

- 23.1. CMO office will be the focal point for reporting of EVD statistics to WHO and MOH.
- 23.2. Responsibility of contact tracing and quarantine lies primarily with MOH, however for UN International staff (civilian, police and military members), the CMO / FMO office will assist.
- 23.3. Relevant information will be kept regarding staff members who:
- Travel INTO Ebola outbreak areas
  - Exit FROM Ebola outbreak areas
  - Return FROM Ebola outbreak areas
- 23.4. The information will be kept in folders or recorded on Earthmed where available (questionnaires uploaded).

## **24. TRAVEL ADVISORY**

- 24.1. Personnel as defined in paragraph 6.1 and herein should only travel to Ebola affected countries for essential travel reasons. All non-essential travel to these areas should be discouraged.
- 24.2. Any civilian UN staff member planning to leave the mission area to one of the affected areas should first get approval from the CMS and as appropriate by the Head of the UN entity administration. Any non-civilian travel to affected areas must first be approved by the Force Chief of Staff and then by the CMS.
- 24.3. All personnel travelling to affected areas must complete a clinical assessment at a UN medical facility before leaving.
- 24.4. Before re-entering Côte d'Ivoire, personnel must first obtain medical clearance through a clinical assessment at a UN medical facility in the country of embarkation. On entering Côte d'Ivoire, personnel will be medically screened and followed up (as per section 5.4)
- 24.5. Personnel will NOT TRAVEL to Côte d'Ivoire under any circumstances from an affected area, without CMS Administrative and Medical approval.



## 25. COORDINATION

- 25.1. Chief Medical Officer will be overall responsible for coordinating the Ebola Management effort in UNOCI with WHO, Ivorian Government (MOH) and with UN HQ, New York.
- 25.2. Force Medical Officer will assist the CMO in coordinating efforts in the Military contingents and hospitals.
- 25.3. The UNOCI Ebola Core Group (which includes Chief Medical Officer and Force Medical Officer) will meet bi-monthly or more frequently if necessary to coordinate the logistic, security, political and administrative aspects of the effort.

## 26. REFERENCES

- 26.1.1. Ebola virus disease Fact sheet N°103  
*<http://www.who.int/mediacentre/factsheets/fs103/en/>*
- 26.1.2. WHO recommended Guidelines for Epidemic Preparedness and Response: Ebola Hemorrhagic Fever (EHF)  
*<http://apps.who.int/iris/bitstream/10665/63806/1/WHO EMC DIS 97.7.pdf>*
- 26.1.3. Interim Infection Control Recommendations for Care of Patients with Suspected or Confirmed Filo virus (Ebola, Marburg) Hemorrhagic Fever  
*[http://www.who.int/csr/bioriskreduction/interim\\_recommendations\\_filovirus.pdf](http://www.who.int/csr/bioriskreduction/interim_recommendations_filovirus.pdf)*
- 26.1.4. Infection Control for Viral hemorrhagic Fevers in the African Health Care Setting (WHO/CDC)  
*<http://www.cdc.gov/ncidod/dvrd/spb/pdf/african-healthcare-setting-vhf.pdf>*
- 26.1.5. Liberian Ministry of Health and Social Welfare  
*<http://mohsw.gov.lr>*