

## WHO Information Note (Version Oct. 24/2014)

### Guidance for Immunization Programmes in the African Region in the Context of Ebola

As a public health emergency of international concern, the Ebola outbreak in West Africa has drawn huge global attention and response. In the midst of the epidemic, numerous queries about immunization services and the risks they present have been raised. Tragically in some areas, there are reports of increased vaccine-preventable deaths, such as measles. In this context, practical guidance for both Ebola affected and non-affected countries is needed. The specific purpose of this document is to assist countries to:

- Maintain immunization services and use immunization contacts and surveillance system as opportunities to educate and monitor for Ebola;
- Provide guidance on infection prevention and control during vaccination;
- Prepare where there is a potential risk of Ebola (e.g. border, etc.) and low immunization coverage, to implement activities to increase immunization coverage in these areas.

As the situation evolves, it is intended that this guidance will be revised if necessary.

Ebola is spread through human-to-human transmission via direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people (faeces, urine, vomit, saliva, tears, semen, sweat) and with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids<sup>1</sup>. There is no airborne transmission of the virus. The incubation period of Ebola virus disease (EVD) (the interval from infection to the onset of symptoms) ranges from 2 to 21 days. People are not infective during the incubation period, but become infective with the onset of symptoms. Health-care workers have frequently been infected while treating patients with suspected or confirmed EVD. This has occurred through close contact with patients when infection control precautions are not strictly practiced.

Community engagement is essential for the successful response to outbreaks. Good outbreak control relies on applying a package of interventions<sup>1</sup>, namely case management with use of appropriate personal protective equipment (PPE), surveillance and contact tracing, a good laboratory service, safe burials, social mobilisation and behavioural change communication.

### ***Countries Not Affected by Ebola Outbreak:***

- No special measures are needed. Routine immunization services, vaccination campaigns (NIDs, SIAs) and vaccine-preventable disease surveillance should continue as planned using the normal safe injection and waste disposal practices.
- If needed, communication messages should highlight that immunization services do not pose any special risk with respect to Ebola.
- No changes to the collection and shipment of specimens collected for vaccine-preventable disease surveillance are required.

## ***Ebola Affected Countries:***

### **(1) Countries with widespread and intense transmission (Guinea, Liberia, and Sierra Leone)<sup>1</sup>:**

As a result of the Ebola crisis, regular health services, including immunization, have been greatly reduced or stopped due to shortage of healthcare workers, fear, and the massive disruption of daily life. In situations where this has occurred consideration should continuously be given to the possibility of reinstating immunization services at the earliest possible time. Any disruption of immunization services, even for short periods, will result in an increase in the number of susceptible individuals, and will increase the likelihood of vaccine-preventable disease outbreaks. Cases of measles<sup>2</sup> are being reported in the Ebola affected countries and there is a growing risk of significant measles outbreaks. This will further overload the barely functioning health services, and inevitably result in deaths particularly among children.

- For the moment, to avoid mass gatherings, vaccination campaigns (NIDs, SIAs) are advised to be postponed until the country has been declared Ebola free (42 days without detection of any new cases<sup>3</sup>).
- However, where and whenever routine vaccination is possible (e.g. unaffected districts, private practice, NGO services, other) health workers should:
  - Apply standard precautions (Annex 1) when vaccinating ANY PERSON. Hand hygiene is the most important measure (rubbing with an alcohol-based formulation (hand sanitizer) or if not available, hand washing with soap). Gloves should be worn and changed for each person vaccinated.
  - Use the case definitions to screen for EVD<sup>4</sup> by asking if they have experienced any of the signs or symptoms, or if they have had contact with persons infected with EVD (e.g. family members, etc).  
DO NOT VACCINATE ANYONE SUSPECTED OF EVD OR EXPOSED TO EVD<sup>5</sup>.
  - Use “one-time/one-person only” auto-disable syringes.
  - Observe strict safe injection and waste disposal practices (e.g. no recapping, immediate disposal of needle and syringe into safety box; disposal by high-temperature incineration or burying).
  - For the administration of oral vaccines (e.g. OPV) ensure that the vaccine dropper does not at any time come in contact with the child’s mouth. If it does, complete the dosing and discard the vial (e.g. do not use the remaining doses).

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<sup>1</sup> There is a separate, unrelated outbreak of EVD in the Democratic Republic of the Congo that is affecting 4 health districts surrounding Boende. Immunization services have been severely disrupted in these 4 districts. When the Ebola outbreak is over, multi-antigen catch-up campaigns will be needed to vaccinate those children who missed their vaccinations.

<sup>2</sup> Vitamin A supplementation for the treatment of measles cases is essential to reduce severity of illness and deaths.  
[http://www.who.int/immunization/programmes\\_systems/interventions/TreatingMeaslesENG300.pdf?ua=1](http://www.who.int/immunization/programmes_systems/interventions/TreatingMeaslesENG300.pdf?ua=1)

<sup>3</sup> <http://www.who.int/csr/disease/ebola/declaration-ebola-end/en/>

<sup>4</sup> Most common symptoms experienced by persons infected with EVD are the sudden onset of fever, intense weakness, muscle pain, headache and sore throat. This is followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and, at an advanced stage, may include both internal and external bleeding.

<sup>5</sup> Immediately isolate the person and follow established reporting and handling procedures.

- Countries conducting vaccine-preventable disease surveillance should consider putting on hold the shipment of biological samples of human origin (that have been collected since the start of the Ebola outbreak) to regional reference laboratories for further testing, and await further guidance on handling of these specimens.
- It may be prudent to consider suspending further collection of any potentially infectious body fluid for laboratory testing as part of routine VPD surveillance for the duration of the outbreak. If specimen collection is considered necessary, strict adherence to the established Infection Prevention and Control guidelines for specimen collection is recommended.
- The much reduced immunization activities are likely to have an impact on stock management. Vaccine supply orders coming into the country should be reviewed and adjusted to ensure that cold chain capacity is not exceeded.
- Once the Ebola outbreak is over (42 days without detection of any new cases) and normal health services resume, it will be necessary to plan and conduct multi-antigen catch-up campaigns to vaccinate the large number of infants and children who missed their scheduled vaccinations.

## **(2) Countries with an initial case or cases, or with localized transmission:**

Nigeria and Senegal were the first African countries in this category, however, swift and effective responses contained and stopped Ebola transmission. As of 17 October and 20 October respectively, the outbreaks in both countries have been officially declared over by WHO and surveillance systems heightened for timely identification of possible re-introduction of cases.

- In areas without cases, routine immunization services, vaccination campaigns (NIDs, SIAs) and vaccine-preventable disease surveillance should continue as planned using the normal safe injection and waste disposal practices.
- Instruct healthcare workers and vaccinators to be vigilant for anyone exhibiting signs or symptoms of EVD<sup>3</sup> and immediately isolate and report any suspected cases. The current Ebola triage systems in all health facilities should be maintained.
- Given the fear about Ebola, the public need reassurance through appropriate communication messages which highlight that (a) immunization services do not pose any special risk with respect to Ebola and (b) it is important that they bring children on time to receive their vaccinations against other diseases so that they remain healthy.
- In areas with cases, or with localized transmission, follow procedures outlined in (1) above. Once the Ebola outbreak is over (42 days without detection of any new cases) and normal health services resume, it will be necessary to plan and conduct multi-antigen catch-up campaigns to vaccinate children who missed their scheduled vaccines.
- As part of preparedness against the further spread of Ebola, areas with low immunization coverage should be identified and activities to increase immunization coverage in these areas should be planned and implemented.
- No changes to the collection, shipment and processing at the laboratories of specimens collected for vaccine-preventable disease surveillance are required.

**(3) Prioritized Countries at Risk<sup>6</sup> (Cote d'Ivoire, Guinea Bissau, Mali, Senegal, Benin, Cameroon, Central African Republic, Democratic Republic of Congo, Gambia, Ghana, Mauritania, Nigeria, South Sudan, and Togo)**

- Implement WHO guidelines for preparedness<sup>7</sup> to respond to a possible outbreak of Ebola.
- Routine immunization services, vaccination campaigns (NIDs, SIAs) and vaccine-preventable disease surveillance should continue as planned using the normal safe injection and waste disposal practices.
- Instruct healthcare workers and vaccinators to be vigilant for anyone exhibiting signs or symptoms of EVD<sup>3</sup> and immediately isolate and report any suspected cases.
- Given the fear about Ebola, the public need reassurance through appropriate communication messages which highlight that (a) immunization services do not pose any special risk with respect to Ebola and (b) it is important that they bring children on time to receive their vaccinations against other diseases so that they remain healthy.
- As part of preparedness for a possible Ebola outbreak, areas with low immunization coverage should be identified and activities to increase immunization coverage in these areas should be planned and implemented.
- No changes to the collection, shipment and processing at the laboratories of specimens collected for vaccine-preventable disease surveillance are required.

**Further information:** Regular updates, information and training materials can be found at the WHO Ebola website: <http://www.who.int/csr/disease/ebola/en/>

Also on the intranet:

<http://intranet.who.int/sites/evd/keydocs/>

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<sup>6</sup> Criteria used to prioritize countries include geographical proximity to affected countries, trade and migration patterns and strength of health systems.

<sup>7</sup> <http://www.who.int/csr/disease/ebola/evd-preparedness-checklist-en.pdf?ua=1>

## Annex 1. Standard Precautions in Health Care – AIDE MEMOIRE KEY ELEMENTS AT A GLANCE

### 1. Hand hygiene<sup>1</sup>

#### How to perform hand hygiene:

- Clean your hands by **rubbing them with an alcohol-based formulation**, as the preferred mean for routine hygienic hand antisepsis if hands are not visibly soiled. It is faster, more effective, and better tolerated by your hands than washing with soap and water.
- **Wash your hands with soap and water** when hands are visibly dirty or visibly soiled with blood or other body fluids or after using the toilet.

#### Summary technique:<sup>1</sup>

- Hand washing (40–60 sec): wet hands and apply soap; rub all surfaces; rinse hands and dry thoroughly with a single use towel; use towel to turn off faucet.
- Hand rubbing (20–30 sec): apply enough product to cover all areas of the hands; rub all surfaces until dry.

#### Summary indications:<sup>1</sup>

1. **Before touching a patient:** Clean your hands before touching a patient when approaching him/her\*
2. **Before clean / aseptic procedure:** Clean your hands immediately before accessing a critical site with infectious risk for the patient (e.g. a mucous membrane, non-intact skin, an invasive medical device)\*
3. **After body fluid exposure risk:** Clean your hands as soon as the task involving an exposure risk to body fluids has ended (and after glove removal)\*
4. **After touching a patient:** Clean your hands when leaving the patient's side after having touched the patient\*
5. **After touching patient surroundings:** Clean your hands after touching any object or furniture when living the patient surroundings, without having touched the patient\*

### 2. Gloves

- Wear GLOVES when touching blood, body fluids, secretions, excretions, mucous membranes, nonintact skin.
- Change GLOVES between tasks and procedures on the same patient after contact with potentially infectious material.
- Remove THEM after use, before touching non-contaminated items and surfaces, and before going to another patient. Perform hand hygiene immediately after removal.

### 3. Facial protection (eyes, nose, and mouth)

- Wear (1) a surgical or procedure mask and eye protection (eye visor, goggles) or (2) a face shield to protect mucous membranes of the eyes, nose, and mouth during activities that are likely to generate splashes or sprays of blood, body fluids, secretions, and excretions.

### 4. Gown

- Wear a gown to protect skin and prevent soiling of clothing during activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
- Remove soiled gown as soon as possible, and perform hand hygiene.

### 5. Prevention of needle stick and injuries from other sharp instruments<sup>2</sup>

#### Use care when:

- Handling needles, scalpels, and other sharp instruments or devices.

### 6. Respiratory hygiene and cough etiquette Persons with respiratory symptoms should apply source control measures:

- Cover their nose and mouth when coughing/sneezing with tissue or mask, dispose of used tissues and masks, and perform hand hygiene after contact with respiratory secretions.

### 7. Environmental cleaning

- Use adequate procedures for the routine cleaning and disinfection of environmental and other frequently touched surfaces.

### 8. Linens

#### Handle, transport, and process used linen in a manner which:

- Prevents skin and mucous membrane exposures and contamination of clothing.
- Avoids transfer of pathogens to other patients and or the environment.

### 9. Waste disposal

- Ensure safe waste management.
- Treat waste contaminated with blood, body fluids, secretions and excretions as clinical waste, in accordance with local regulations.
- Human tissues and laboratory waste that is directly associated with specimen processing should also be treated as clinical waste.
- Discard single use items properly.

### 10. Patient care equipment

- Handle equipment soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of pathogens to other patients or the environment.
- Clean, disinfect, and reprocess reusable equipment appropriately before use with another patient.
- Clean used instruments.
- Dispose of used needles and other sharp instruments.

Source: Modified from: Standard precautions in health care AIDE-MEMOIRE. World Health Organization, Geneva, 2007; Available at: <http://www.who.int/csr/resources/publications/standardprecautions/en/>.

<sup>1</sup> For more details, see: 1) WHO Guidelines on Hand Hygiene in Health Care, 2009, available at: <http://www.who.int/qpsc/5may/tools/en/>. 2) "Hand Hygiene: Why, How & When?", available at: [http://www.who.int/qpsc/5may/tools/training\\_education/en/](http://www.who.int/qpsc/5may/tools/training_education/en/)

<sup>2</sup> The SIGN Alliance at: [http://www.who.int/injection\\_safety/sign/en/](http://www.who.int/injection_safety/sign/en/)

\*NOTE: Hand hygiene must be performed in all indications described regardless of whether gloves are used or not.