

PUBLIC HEALTH GUIDANCE ON THE MANAGEMENT OF MENINGOCOCCAL DISEASE OUTBREAKS

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This document provides all UN duty stations with key recommendations regarding public health prevention and management of suspect/confirmed outbreaks of meningococcal disease. For any questions, please contact DHMOSH Public Health Section at dos-dhmosh-public-health@un.org

TERMINOLOGY

1. **“Meningitis”** is an inflammation (swelling) of the protective membranes covering the brain and spinal cord and can be caused by both bacteria and viruses. Injuries, cancer, certain drugs and other infections can also cause meningitis. Treatment will differ depending on the cause identified.
2. **“Meningococcal disease”**, however, refers to any illness caused by a bacteria *Neisseria meningitidis* (*N. meningitidis*). **This disease is very serious and can prove deadly in a matter of hours.** Early diagnosis and treatment are very important. The disease can include both infections of the lining of the brain and spinal cord (i.e. meningitis) and bloodstream infections (i.e. bacteremia or septicemia). These bacteria can spread from person-to-person through throat secretions or respiratory droplets from infected persons. The incubation period from exposure to symptoms showing ranges from 2 to 10 days, with symptoms usually appearing within 3 to 4 days. Meningococcal disease must be treated rapidly with antibiotics, so rapid medical attention is extremely important. Prevention of meningococcal disease is through keeping up-to-date with recommended vaccines. Detailed information on meningococcal disease are available [here](#) (CDC) and [here](#) (WHO)

WHAT TO DO IF A MENINGOCOCCAL DISEASE OUTBREAK IS IDENTIFIED IN YOUR DUTY STATION?

If you see two or more cases of the same serogroup (type) occurring amongst a specific group/population over a short time period, you should suspect that you might have a meningococcal disease outbreak.

Implement the following prevention and control measures immediately if a meningococcal disease outbreak is suspected or confirmed to be occurring amongst UN personnel in your duty station.

Steps to Take

1. Report any suspect/confirmed meningococcal disease cases or outbreaks to DHMOSH Public Health at dos-dhmosh-public-health@un.org We will provide you further technical support for your response.
2. Treatment of meningitis cases should be based on empiric treatment guidelines and tailored based on speciation and sensitivities of the organism.
3. Review WHO’s standard case definitions for bacterial meningitis, available [here](#) on page 17 (see below figure). UN healthcare personnel should be directed to be vigilant for more patients meningococcal disease signs/symptoms (see [here](#) for more details). In addition, clinicians should be aware of the different clinical presentations of invasive meningococcal disease other than meningitis. This includes meningococcaemia (including fulminant sepsis and shock).



Standard case definitions for bacterial meningitis

- Suspected meningitis case:**
Any person with sudden onset of fever (>38.5 °C rectal or 38.0 °C axillary) and neck stiffness or another meningeal sign including bulging fontanelle in toddlers.
- Probable meningitis case:**
Any suspected case with macroscopic aspect of CSF turbid, cloudy or purulent; or with a CSF leukocyte count >10 cells/mm³; or with bacteria identified by Gram stain in CSF.

In infants: CSF leucocyte count >100 cells/mm³; or CSF leucocyte count 10–100 cells/mm³ AND either an elevated protein (>100 mg/dl) or decreased glucose (<40 mg/dl) level.
- Confirmed meningitis case:**
Any suspected or probable case that is laboratory confirmed by culturing or identifying (i.e. by polymerase chain reaction, immunochromatographic dipstick or latex agglutination) of *Neisseria meningitidis*, *Streptococcus pneumoniae* or *Haemophilus influenzae* type b in the CSF or blood.

4. Identify all close contacts of the suspect/confirmed patient/s with meningococcal disease. Such persons may include household members, roommates, or anyone with direct contact with the patient's oral secretions...etc.
5. **Administer post-exposure prophylactic antibiotics to all close contacts as soon as possible to prevent them from developing the disease.** Recommended antibiotics for prevention after exposure include a single dose of either **ciprofloxacin** (single dose of 500 mg orally in adolescents and adults; 15 mg/kg orally in children <12 years) or **ceftriaxone** (single dose of 250 mg IM in adults; 125 mg IM in children <12 years). **See WHO guidance on case management and contact management [here](#).**
6. **Encourage all UN personnel to keep up-to-date with recommended vaccines, including getting vaccinated against meningococcal disease,** maintain healthy habits, and not have close contact with individuals who are sick. The choice of which vaccine to receive depends on the serogroup causing the outbreak.
7. Ensure that your UN health facility have on hand the **essential commodities for management of meningococcal meningitis cases.** **For the full checklist and specifications of such commodities needed for treatment and management, please see WHO guide [here](#)**
8. For more information, feel free to review this longer guidance for management of meningococcal disease outbreaks available [here](#).

The above protocol and resources should be reviewed carefully by duty stations in the “meningitis belt” in particular. For information on whether your duty stations falls under the “meningitis belt”, please see [here](#)

For any questions related to procuring commodities for meningococcal disease, please contact the **Medical Support Section, OSCM, DOS**. For all other questions, please contact **DHMOSH Public Health Section** at dos-dhmosh-public-health@un.org