Yellow Fever Outbreak Toolbox
Updated: November 2019

Key reference documents

- Yellow fever health topic page (Brazzaville: World Health Organization).

Case definitions

WHO suggested outbreak case definition

**Suspected case:**
- Any person with acute onset of fever, with jaundice appearing within 14 days of onset of the first symptoms.

**Probable case:**
- A suspected case; and one of the following:
  - presence of yellow fever IgM antibody in the absence of yellow fever immunization within 30 days before onset of illness; or
  - positive post-mortem liver histopathology; or
  - epidemiological link to a confirmed case or an outbreak.

**Confirmed case:**
- A probable case; and
  - Absence of yellow fever immunization within 30 days before onset of illness; and one of the following:
    - detection of yellow fever-specific IgM; or
    - detection of fourfold increase in yellow fever IgM, or IgG antibody titres between acute and convalescent serum samples, or both; or
    - detection of yellow fever-specific neutralizing antibodies.

For more information: outbreaktoolkit@who.int
or

- Absence of yellow fever immunization within 14 days before onset of illness; and one of the following:
  - detection of yellow fever virus genome in blood or other organs by polymerase chain reaction (PCR); or
  - detection of yellow fever antigen in blood, liver or other organs by immunoassay; or
  - isolation of yellow fever virus.

WHO surveillance case definition³


WHO other definitions

Outbreak definitions:

- Presence of at least one confirmed case, as interpreted in a context.

Data collection tools

- Case investigation form(s):
- Line list(s): Not available.
- Electronic tools: Not available.

Laboratory confirmation


³ Yellow fever confirmation is complex:

- Any case classification should account for vaccination status.
- Serological testing cannot distinguish between vaccine- and naturally-acquired antibodies.
- Yellow fever diagnostic is both positive and differential. It is essential to rule out cross-reactivity with other arboviruses such as dengue, zika, chikungunya or West Nile virus. This cross-reactivity can be seen on serology testing (IgM) as well as plaque reduction neutralization assays (PRNT).
- Results should be interpreted considering local epidemiology of other flaviviruses.
Response tools and resources

- **Vaccine-preventable diseases surveillance standards** [Yellow fever coming soon] (Geneva; World Health Organization; 2019).

Training

- **Yellow fever: Introductory level online course** (Geneva; World Health Organization: 2016).

Other resources