IASR

Reporting Criteria for Acute poliomyelitis

(1) Definition

Acute infection of the central nervous system by poliovirus types 1-3 (including vaccine strains). The main clinical manifestation is acute flaccid paralysis caused by destruction of the motor neurons. There are three types of viruses circulating in communities, which are wild poliovirus (WPV), vaccine-derived poliovirus (VDPV) * and vaccine strain poliovirus**.

(2) Clinical characteristics

The incubation period is 3-12 days. Symptoms include fever (about 3 days), general malaise, headache, nausea, and meningeal symptoms, such as back stiffness and nuchal rigidity. Mild cases may manifest flu-like symptoms or gastrointestinal symptoms. Some manifest meningeal symptoms without paralysis (non-paralytic case). Severe cases develop acute tetraplegia (more frequently in the lower extremities) following the start or relapse of fever (paralytic type). Tendon reflex of the affected limbs decreases or disappears without sensory disturbance.

(3) Reporting criteria

a) "Patients (confirmed cases)"

In compliance with Article 12 paragraph 1 of the Infectious Diseases Control Law, if a physician has examined a patient with clinical signs or symptoms as described in (2), has suspected acute poliomyelitis, and has made a diagnosis of acute poliomyelitis based on the data obtained by the laboratory diagnosis specified in the left column of the table below, the physician shall notify the case immediately.
Clinical specimens should be chosen from those listed in the right column of the table.

b) "Asymptomatic infections"

In compliance with Article 12 paragraph 1 of the Infectious Diseases Control Law, if a physician has examined an individual without clinical signs or symptoms as described in (2), but has diagnosed that the individual was an asymptomatic carrier based on the results obtained by the laboratory method and specimen as described below, the physician shall notify the case immediately. If the detected virus isolates are vaccine strains**, the notification is unnecessary.

d) "Deceased individual whose death was attributed to poliomyelitis"

In compliance with Article 12 paragraph 1 of the Infectious Diseases Control Law, if a physician has examined a deceased person with clinical signs and symptoms as described in (2), has suspected acute poliomyelitis, and has diagnosed that the death was due to poliomyelitis based on the laboratory method and specimen as described below, the physician shall notify the case immediately.

d) "Deceased individual whose death was suspected to be due to poliomyelitis"

In compliance with Article 12 paragraph 1 of the Infectious Diseases Control Law, if a physician has examined deceased person with clinical signs and symptoms as described in (2), and has suspected that the death was caused by poliomyelitis, the physician shall notify the case immediately.

Laboratory method	Specimen
Detection of pathogen by isolation and identification	Stool, rectal swab, throat swab, spinal fluid (1) The standard practice is detection of poliovirus type 1-3 from stool specimens. The specimens should be collected as early as possible after development of symptoms. It should be collected at least twice with an interval of >=24 hours. Once poliovirus type 1-3 is detected, notify immediately. (2) If poliovirus type 1-3 is detected from rectal swab, throat swab or spinal fluid, the case should be notified as "laboratory test positive".

*VDPV: defined by mutation rate in the VP1 region; for poliovirus types 1 and 3, >=1% or >=10 nucleotide substitutions in the VP1 region and for poliovirus type 2 >=6 nucleotide substitutions in the VP1 region in comparison with the parental oral polio vaccine (OPV) strains.

**Polioviruses other than WPV or VDPV are defined as vaccine strains.