Polio virus

General:

Polio is a picornavirus (Enterovirus, Rhinovirus). There are 3 strains of polio. Most epidemics are caused by Type 1. Polio enters into cells orally by contaminated water, food or saliva and replicates in B- and T-cells in the small intestine. In the absence of a strong immune response, the virus enters into the blood stream and in about 1% the polio virus attacks motor neurons and the central nervous system causing a lifelong paralysis or death. The infectious polio virus is excreted in stool from where it can spread to sewage and water supplies.

Symptoms usually start 7 to 14 days after exposure. Infected persons are most contagious a few days before and up to a few days after manifesting symptoms. However, persons with polio can spread the infection as long as the virus is present in throat or excreted in stool. The virus can be found in the throat for about 1 week after infection and in stool for >6 weeks.

The commonly used polio vaccine is oral polio vaccine (OPV) and inactivated polio vaccine (IPV). OPV is an attenuated virus. OPV also protects other susceptible persons who are indirectly “vaccinated” as the vaccine virus spreads in the community. Due to the wide use of OPV, no cases of paralytic polio have been reported in the United States since 1979. Unfortunately as long as the disease is present anywhere in the world, children who miss polio vaccinations will face a serious risk.

Note: Polio microorganism detection: see **Enterovirus-RNA** microorganism detection (PCR)

The following tests are available:

- **Poliovirus type 1 antibodies**
  Indication: immunity check
  Material: 1 ml serum
  TAT: 7-10 days*
  Method: NT
  Units: titer
  Ref.- range: <1:4

- **Poliovirus type 3 antibodies**
  Indication: immunity check
  Material: 1 ml serum
  TAT: 7-10 days*

Updated 25/05/2024

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^ non-accredited parameter
*performed in a collaborating laboratory (Germany)

Method:	NT
Units:	titer
Ref.- range:	<1:4

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit http://www.fml-dubai.com/parameter-listings/

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