

Return of the Polio-Virus

By MT

Clinical Manifestation

- 72% asymptomatic
- 24% non-specific illness: low grade fever, sore throat
- 1-5% aseptic meningitis, paresthesia few days after minor illness resolve
- <1% Rapid onset of asymmetric acute flaccid paralysis with areflexia of limbs... death.

Immunogenicity + Efficacy

- 2 types of polio vaccine a) Oral live vaccine (OPV)
b) Inactivated Polio vaccine (IPV)
- Both IPV and OPV are highly immunogenic, effective and provides life long immunity .
- 2 doses of IPV \Rightarrow 95% seroconversion;
- 3 doses of IPV \Rightarrow 99-100% seroconversion.

Epidemiology

- \Rightarrow Happens only in humans.
- \Rightarrow Spreads by fecal-oral and Respiratory routes.
- \Rightarrow Common in infants and young children living in poor hygienic conditions.

Communicability is GREAT

BEFORE and AFTER Illness



Present in throat (2 weeks after illness onset)

excreted in high concentration in feces (3-6 weeks)



- \Rightarrow Incubation period of *nonparalytic polio*—3 to 6 days; onset of *paralysis in paralytic polio*—7 to 21 days
- \Rightarrow Immunocompromised patients with significant B-lymphocyte immune deficiencies have excreted virus for periods > 20 years. ¹

One confirmed case of polio in Tuaran, Sabah has been reported to be genetically linked to poliovirus currently circulating in the southern Philippines. The 3-month-old male child, developed fever and paralysis on 26 October and diagnosis of polio virus was confirmed on 6 December. Testing was conducted by the World Health Organization's Regional Polio Reference Laboratory in Melbourne, Australia, The last case of this highly infectious disease in Malaysia was in 1992.

The Sabah case was due to a rare strain of poliovirus called circulating vaccine-derived polio (cVDPV) Type 1. These polio viruses only occur if a population is seriously under-immunized. ²

*"The only effective way to protect children from polio is **vaccination**," said Marianne Clark, UNICEF Representative in Malaysia.*

Vaccine Schedule



Vaccine Availability

Currently in Malaysia, the IPV comes as a combination with other childhood vaccines which are indicated only for children. National Vaccination schedule covers 4 doses of polio vaccine, at 2 months, 4 months, 6–18 months, and 4–6 years of age.

Imovax Polio is a Poliomyelitis Vaccine (Inactivated) trivalent produced by Sanofi Pasteur (SP), brought in under special Import Permit for the Sea Games Contingent who went to Philippines.

Work is underway to make Polio Booster Vaccine available.

Who should get the Polio Vaccine?

High-risk adults who were fully vaccinated during childhood should receive an additional (single) lifetime booster dose of polio vaccine :

Travelers to areas where polio is epidemic/ endemic

Health-care workers with close contact with patients who travel to high risk countries

Unvaccinated adults whose children receives OPV (international adoptees/refugees)

Lab workers who handles specimens that contain poliovirus

Higher risk adults who have had three or more doses of polio vaccine in the past may get a lifetime booster dose of IPV.

Vaccine Interval



Countries in Asia where polio booster dose is recommended



When to jab the vaccine before TRAVEL ?

TIME BEFORE TRAVEL	NUMBER OF DOSES ¹	INTERVAL BETWEEN DOSES
<4 weeks	1	Not Applicable
4-8 weeks	2	4 weeks
>8 weeks	3	4 weeks

¹ If <3 doses are administered, the remaining doses required to complete a 3-dose series should be administered when feasible, at the recommended intervals above, if the person remains at risk for poliovirus exposure.

1. Red Book , American Academy of Pediatrics
2. World Health Organisation International
3. <https://www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html>

NEW ITEM IN KEDAI NON-FORMULARY !!!

17-B ESTRADIOL GEL 0.06% TOPICAL GEL (OESTROGEL®)

- ◆ **Indication** : Hormone replacement therapy (HRT) for oestrogen deficiency symptoms in post-menopausal women.
- ◆ **Price** : RM64 per tube of 80g
- ◆ **Administration** : To apply on unbroken skin (eg abdomen, arms, shoulders and/or inner thighs, upper part of the buttocks, lumbar region).
- ◆ **Dose** : Start with ½ ruler (1.25 mg of estradiol) and slowly increase to 1 ruler (2.5 g) daily. The average dose is 1 ruler/day, for 24-28 days every month, may have different regimen adapted to a patient's own individual case.
- ◆ Source is from yam.



1 ruler = 2.5 g of gel = 1.5 mg of estradiol

Dose	Frequency	Duration of treatment	No of ruler(s)/ month	No of ruler(s) per treatment course	No of tube(s) per treatment course
0.3mg	2x weekly	1 month	1.6	1.6	3.5 tube/patient = RM224/course of treatment
0.3mg	Daily	6 months	6	36	
0.6mg			12	72	
1 mg		Up to age 51 yo	20	-	7.5 tube/year = RM480 /year
1.2 mg		6 months	24	144	4.5 tube/ patient = RM288 per 6 mo

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(Drug Formulary DIY)



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