PHARMACY BULLETIN

HOSPITAL KUALA KUBU BHARU
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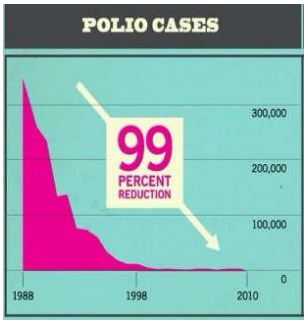
POLIO

Polio or poliomyelitis, is a crippling and potentially deadly infectious disease. It is caused by the poliovirus. The virus spreads from person to person and can invade an infected person's brain and spinal cord, causing paralysis.

The Global Polio Eradication Initiative partnership was launched in 1988 and until 2013, the annual global incidence of poliomyelitis fell by 99 percent (more than 350,000 cases to fewer than 1000 cases)



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Return of Polio in Malaysia

On December 2019, Ministry of Health Malaysia announced the first polio case since 1992 as a 3 months old boy from Tuaran, Sabah was admitted to the intensive care unit with poliomyelitis. Testing has confirmed that the virus is genetically linked to poliovirus currently circulating in the southern Philippines.

MODES OF TRANSMISSION

FECAL – ORAL ROUTE

CHILD INFECTED WITH POLIO VIRUS PASSING STOOL THAT CONTAMINATE FOOD OR WATER CONSUMED BY ANOTHER CHILD

DROPLET

POLIO VIRUS CAN BE TRANSMITTED FROM SNEEZE OR COUGH

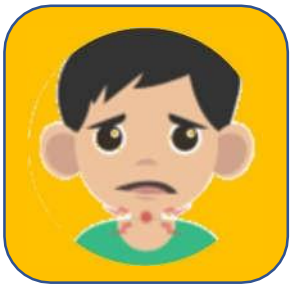
SYMPTOMS

FEVER

LETHARGY

VOMITING

STIFF NECK



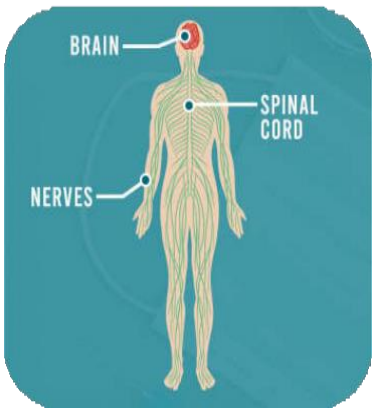
NAUSEA

HEADACHE

STOMACH ACHE

BODY WEAKNESS

COMPLICATION



PARESTHESIA
Feeling of pins and needle in the legs

MENINGITIS
Infection of the covering of the spinal cord and brain

PARALYSIS
Muscle weakness in the arms, legs or both

PREVENTION

VACCINATION

DRINK CLEAN WATER

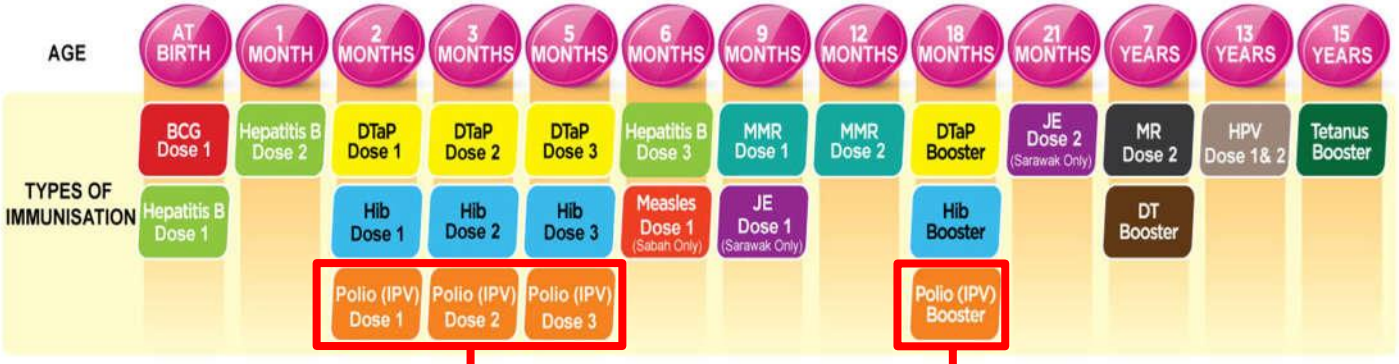
EAT FULLY COOKED FOOD

PERSONAL HYGIENE

WASH HANDS REGULARLY

MALAYSIA VACCINATION PROGRAMME

NO CURE for polio but it can be avoided through vaccination



National Immunization Program by Ministry of Health provide Polio vaccine on 2nd, 3rd and 5th months of child

Booster vaccine given to boost immune system as the initial vaccine may start to wear off

References

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OPHTHALMIC PREPARATION CONTAINING **DEXAMETHASONE** & THE RISK OF WORSENING CORNEAL ULCERATION

PREPARED BY: ANITH SYAZANA BT AWALLUDIN

DEXAMETHASONE EYE PREPARATION

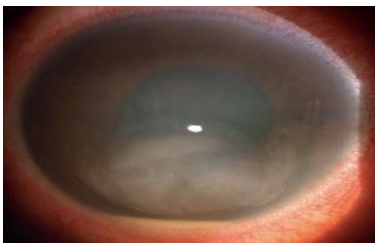
Topical **Dexamethasone** – a corticosteroid, extensively used to treat **ocular inflammatory condition**[1]**.**

It is available either as single agent (i.e. Maxidex) or in combination with antibiotic (i.e. Maxitrol).

Combination of Dexamethasone eye preparation **with antibiotic** is indicated in case of **both inflammation and superficial bacterial infection**[1].

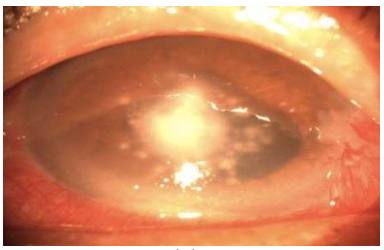
CORNEAL ULCER

A corneal ulcer (**ulcerative keratitis**) is a **loss of corneal tissue** usually **caused by infection** with bacterial, viral or fungal etiologies – which can lead to vision loss or blindness[2].



Bacterial keratitis[2]

Viral keratitis[2]



Fungal keratitis[2]

TREATMENT

Topical antibiotic is the **mainstay treatment** for ulcerative keratitis since majority of the cases is bacteria in nature[3].

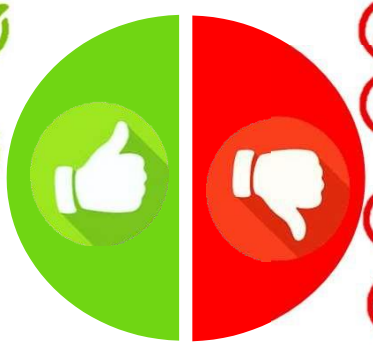
Adjunctive therapy with topical corticosteroid especially within 2-3 days after starting antibiotic **may be beneficial** [3,4].

However, the **use of steroid is controversial** because of its potential disadvantage.

ADJUNCTIVE THERAPY WITH TOPICAL CORTICOSTEROID

PROS

- Suppress inflammation
- Reduce subsequent corneal scarring and visual loss



CONS

- Recurrence of infection
- Local immunosuppression
- Inhibition of collagen synthesis
- Delayed corneal healing
- Increased intraocular Pressure (IOP)

SPECIAL PRECAUTIONS

Avoid prescribing steroid eye drop for presumed eye infection – **unless organism is confirmed** [4].

Poor outcome reported when steroid is used for **Nocardia bacteria or fungal eye infection** [4].

Ophthalmic **corticosteroids may be beneficial for non-*Nocardia* culture-positive corneal ulcers with no atypical features** [4].

Corticosteroids containing eyedrop could be **effective and well tolerated when used for less than 2 weeks** [1].

ADVERSE EVENTS REPORTED IN MALAYSIA

Until **2018,** NPRA has received a total of:

26 ADR reports
&
35 adverse events
suspected to be **related to dexamethasone eye product** [5].

5 reports
on **corneal ulceration/ worsening corneal ulceration**
&
1 report
on **corneal perforation** [5].

CASE 1 [5]

Patient with corneal ulcer developed **worsening eye redness and pain** after been using dexamethasone containing eye drop continuously for 3 weeks.

After stopping the eye drop
→ symptomimproving.

CASE 2 [5]

Patient developed **corneal perforation** secondary to prolonged exposure to dexamethasone-containing eye drop after using it twice daily for a year for symptomatic relief of recurrent eye redness.

Patient was admitted to hospital and undergo surgery.

ADVICE TO HEALTH CARE PROFESSIONALS

Corticosteroid eye drop should be **prescribed cautiously** for infectious ulcerative keratitis especially if the type of organism has not been identified [5].

Counsel patient not to use corticosteroid eye drops longer than the duration prescribed [5].

Report any adverse events suspected to be related to the use of dexamethasone containing products to the NPRA [5].

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