

DEXAMETHASONE

ACTIONS AND USES

This agent is a corticosteroid with anti-inflammatory and glucocorticoid actions. It is used in the management of chronic lung disease (bronchopulmonary dysplasia) or to reduce post-extubation stridor and need for re-intubation in babies at high risk of these.

DOSAGE

IV or Oral

1a) Chronic Lung Disease – LOW DOSE

Days (Inclusive)	Dose	Frequency
1 to 3	60 microgram/kg	12 hourly
4 to 6	40 microgram/kg	12 hourly
7 and 8	20 microgram/kg	12 hourly
9 and 10	8 microgram/kg	12 hourly

1b) Chronic Lung Disease – High Dose

Days (inclusive)	Dose	frequency
1 to 3	250microgram/kg	12 hourly
4 to 7	200microgram/kg	12 hourly
8 to 14	200microgram/kg	Once daily
Days 15 onwards	If the response is very good the course may be stopped. If the response is less than adequate, then the course should be continued at 200microgram/kg/dose ONCE DAILY or on alternate days.	

Notes:

- Each segment of this course may be prolonged if the response is inadequate.
- Each segment of this course may be shortened if the side effects are unacceptable or treatment affect is good.
- **The decision about the length of each section will be the responsibility of a Consultant**
- If doses of 300micrograms/kg/day are given for 8 days or more OR doses of 150micrograms/kg/day are given for 15 days or more, LIVE vaccinations must be delayed until **three months** after stopping treatment as per the guidance in the green book.

2. Treatment of post-extubation stridor and prevention of re-intubation

IV or oral 200 micrograms/kg/dose could be repeated 8 hourly for total 3 doses if required.
Use oral route whenever possible.

3. Prevention of post-extubation stridor (If previous unsuccessful extubation due to stridor)

IV or oral 200 micrograms/kg/dose
Note: give 1st dose at least 4hrs before attempting extubation, 2nd dose 4 hours after extubation and 3rd dose 8 hours after 2nd dose
Use oral route whenever possible.

ADMINISTRATION

By slow IV bolus over 3 minutes.

RECONSTITUTION

Dexamethasone injection is available as a solution containing 3.3mg/ml in a 1ml ampoule therefore reconstitution is not necessary but it has to be diluted further in order to get a suitable dose. **Check strength and size as other strengths are available. ONLY USE 3.3MG/ML 1ML AMPOULES**

Dexamethasone injection 1mg/ml

Dilute 0.3ml of dexamethasone 3.3mg/ml injection with 0.7ml of sodium chloride 0.9% and mix well.

Dexamethasone injection 100micrograms/ml

Dilute 0.1ml of dexamethasone 1mg/ml with 0.9ml of sodium chloride 0.9% and mix well.

Compatibilities

Sodium chloride 0.45%, glucose 5%

Incompatibilities

Do not mix or infuse with vancomycin.

STORAGE

Opened ampoules should not be stored. Diluted solutions should be used immediately. Unopened vials are stored in the medicine cupboard.

The oral preparation available 400micrograms/ml (2mg in 5ml) should be discarded 90 days after opening.

MONITORING

Monitor for hyperglycaemia, serum urea, electrolytes and fluid balance and daily blood pressure. It can increase the risk of infection and therefore its use is avoided if neonate has known or suspected infection, unless the potential benefits outweigh the risks. Increased risk of toxicity of digoxin, fluconazole if hypokalaemia present.