

Dexamethasone

4mg/mL injection, 1mg/mL oral mixture*

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Note:

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

Dose and Indications

Facilitating extubation in ventilated babies with evolving or established chronic lung disease

Intravenous, Oral

Initial dose: 0.05 to 0.075mg/kg/dose twice a day, then review response and wean every 2 to 3 days

Cumulative dose and titration at neonatologist discretion, with aim to use lowest effective dose for the shortest duration.

Higher initial doses have been used and are described in other literature sources, but should be considered exceptional and at only used at neonatologist discretion.

Treatment of post-intubation laryngeal oedema

Intravenous, Oral

0.075mg/kg/dose given 12 hourly for up to three doses

Preferably started 12 hours (at least 4 hours) prior to tube removal.



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Preparation and Administration

Intravenous

Intravenous for doses less than 0.4mg

Dilute 1mL of the 4mg/mL dexamethasone sodium phosphate injection with 7mL sodium chloride 0.9% (to a total volume of 8mL). The resulting solution contains 0.5mg/mL dexamethasone.

Dose	0.05mg	0.1mg	0.15mg	0.2mg	0.25mg	0.3mg
Volume	0.1mL	0.2mL	0.3mL	0.4mL	0.5mL	0.6mL

To be administered as a slow push over at least 3 minutes

Discard any remaining solution.

Intravenous for doses greater than 0.4mg

Use undiluted dexamethasone sodium phosphate injection (4mg/mL).

Dose	0.4mg	0.8mg	1.2mg	1.6mg	2mg	2.4mg
Volume	0.1mL	0.2mL	0.3mL	0.4mL	0.5mL	0.6mL

To be administered as a slow push over at least 3 minutes.

Discard any remaining solution.

Oral

Oral dexamethasone solution contains 1mg/mL of dexamethasone.

Oral dexamethasone doses only require dilution when doses smaller than or equal to 0.1mg are administered, to ensure accuracy of dose.

Dilution to 0.1mg/mL

Dilute 0.5mL of dexamethasone oral solution (1mg/mL) with 4.5mL of water for irrigation (to a total volume of 5mL). The resulting solution contains 0.1mg/mL.

Dose	0.04mg	0.06mg	0.08mg	0.1mg
Volume	0.4mL	0.6mL	0.8mL	1mL

Give with or after feeds to minimise gastrointestinal irritation.

Discard remaining diluted solution.

Compatible Fluids

Glucose 5%, sodium chloride 0.9%, glucose 10%, glucose/sodium chloride combinations



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Adverse Effects

Common

Adrenal suppression, increased susceptibility to infection, masking of signs of infection, sodium and water retention, hypertension, hypokalaemia, hyperglycaemia, osteoporosis, fractures, delayed wound healing, skin atrophy, bruising, hirsutism, growth retardation, myopathy, muscle wasting, cushingoid appearance, weight gain, cataracts, gastritis

Monitoring

- > Monitor for hypertension, hyperglycaemia and sepsis as per local unit protocol.

Practice Points

- > *Oral mixture is prepared at Women's & Children's Health Network Pharmacy. If not available the injection solution may be given orally (please note that these solutions are different concentrations).
- > Caution with use in the following patient groups: gastric ulceration, hypertension, concurrent use of indomethacin/ibuprofen, renal impairment or cardiac disease.
- > If an infant has been on dexamethasone in the last month, cover for possible adrenal suppression during subsequent episodes of stress with IV hydrocortisone.

Steroid equivalents (glucocorticoid activity of oral or intravenous dose)

Cortisone Acetate	1.25mg
Dexamethasone	0.04mg
Hydrocortisone	1mg
Methylprednisolone	0.2mg
Prednisolone / Prednisone	0.25mg



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