



NEONATAL MEDICATION GUIDELINE

Dexamethasone

Scope (Staff): Nursing, Medical and Pharmacy Staff

Scope (Area): KEMH NICU, PCH NICU, NETS WA

This document should be read in conjunction with the [Disclaimer](#).

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Requires Neonatologist or relevant specialist review within 24 hours of initiation.

Description

Long acting synthetic glucocorticoid (adrenal steroid hormone), anti-inflammatory and immunosuppressive.

Presentation

Vial: 4mg/mL (4000microg/mL)

Oral solution: 1mg/mL (1000microg/mL)

Storage

Vial: Store at room temperature, below 25°C.

Oral solution: Refrigerate, do not freeze.

Dose

Facilitating extubation in ventilated babies with evolving or established chronic lung disease (Low dose DART Regimen)

IV/Oral:

Note - The weaning regime can be shortened or lengthened depending on the infant's clinical response.

| Day | Dose | Frequency | Duration |
|----------|------------------------|-----------|----------|
| Day 1-3 | 75 microgram/ kg/ dose | 12 hourly | 72 hours |
| Day 4-6 | 50 microgram/ kg/ dose | 12 hourly | 72 hours |
| Day 7-8 | 25 microgram/ kg/ dose | 12 hourly | 48 hours |
| Day 9-10 | 10 microgram/ kg/ dose | 12 hourly | 48 hours |

Treatment of confirmed COVID-19 where the neonate requires oxygen and/or ventilation

IV/Oral:

Per Low dose DART regimen in table above.

Prevention of post intubation stridor in neonates who have had repeated, traumatic or prolonged intubation

IV/Oral:

250 microgram/kg/dose every 8 hours for a total of 3 doses.

Recommended to begin at least 4 to 12 hours prior to extubation.

For respiratory insufficiency and oedema with acute non-infectious laryngospasm

IV/Oral:

250 microgram/kg/dose every 8 hours for a total of 3 doses.

Dose Adjustment

Adjust dose according to response as per consultant advice.

Renal impairment: no dose adjustment documented.

Hepatic impairment: no dose adjustment documented.

Preparation

IV (diluted)

Available from CIVAS (*KEMH only*)

Withdraw 0.5mL (2mg) of dexamethasone and add 19.5mL of compatible fluid.

Concentration = 2mg/20mL = 2000microgram/20mL.

Final Concentration = 100microgram/mL.

Oral

Dilution required for doses less than 100micrograms:

Take 1mL (1000 micrograms) of oral dexamethasone solution and dilute to a final volume of 10mL with Water for Irrigation.

Concentration = 1000microgam/10mL = 100microgam/mL

Administration**IV Push (diluted)**

Slow push over 3-5 minutes

IV Infusion (undiluted)

For 250microgram/kg doses for post-intubation stridor only.

Use undiluted and infuse over 15 minutes.

Oral

Give with or immediately after feeds to minimise gastric irritation

Compatible Fluids

Sodium Chloride 0.9%, Glucose 5%

Y-Site Compatibility

Refer to KEMH Neonatal Medication Guideline: [Y-Site IV Compatibility in Neonates](#)

Side Effects

Common: hyperglycaemia, hypertension, behavioural disturbances, increase in urinary calcium excretion, sodium and water retention.

Serious: sepsis, masking of signs of infection, adrenal suppression, acute adrenal insufficiency in abrupt withdrawal, G.I. bleeding, osteoporosis, fractures, growth restriction, increased risk of cerebral palsy, delayed wound healing, skin atrophy, cushingoid appearance.

Interactions

Avoid concurrent use with Indomethacin for PDA treatment

Monitoring

Monitor blood glucose levels, blood pressure, electrolytes.

Bone bloods for long term therapy. Signs and symptoms of sepsis.

Related Policies, Procedures & Guidelines

CAHS COVID-19 Resources:

[Clinical Care of Paediatric Patients During the COVID-19 Pandemic](#)

Australian guidelines for the clinical care of people with COVID-19:

[Section 6.1.3.3: Corticosteroids for children and adolescents](#)

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