



NEONATAL MEDICATION GUIDELINE

Erythropoietin (Epoetin Alpha)

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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Restrictions

[Formulary: Highly Restricted](#)

Requires Neonatologist or Haematologist approval before commencing

Description

Human Recombinant Erythropoietin (EPO).

Erythropoietin agonist.

EPO is an endogenous glycoprotein that stimulates red blood cell production normally produced by the kidney

Presentation

Prefilled Syringe: 1000 units/0.5mL

Neonatal dose: to be prepared in Pharmacy

Storage

Store at 2 to 8 °C. Do not freeze.

Protect from light.

Indication

To decrease the need for PRBC transfusions in extremely low birth weight babies.

For the treatment of anaemia of prematurity in selected patients.

Dose

Subcut/IV:

200units/kg/dose on alternate days

OR

100 units/kg once a day

Maximum dose range: 600 units -1400 units/ kg / WEEK

Duration: 2-6 weeks of therapy

For further dosing regimens – contact haematology

Vitamin supplementation should be initiated concurrently:

- **Ferrous sulphate**
Oral: 0.5mL to 1mL /kg/dose every 12 hours
- **Vitamin E**
Oral: 10-15 units once a day
- **Folic Acid**
Oral: 50-100microg once a day

Dose Adjustment

Renal Impairment:

No information

Hepatic Impairment:

No information

Preparation

Use solution prepared by the Pharmacy Department

Do not shake.

Stored in the fridge – allow the syringe to stand for 15 minutes to reach room temperature prior to use.

Administration

Subcut: (preferred)

As per [Neonatal Medication Administration Guideline](#)

Rotate Site of Injection.

IV:

Slowly over 3-5 minutes

Compatible Fluids

Do not mix epoetin alpha with any other medications or solutions

Y-Site Compatibility

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

Side Effects

Neutropenia, hypertension , seizures, thrombocytosis, severe skin reactions, transient erythema at site of subcutaneous injection, diarrhoea, vomiting, pyrexia,

Interactions

Do not dilute or mix with other drugs.

Monitoring

Monitor (at start of treatment and then weekly):

- Full blood count with differential, reticulocyte count and platelet count
- Neutrophils (risk of neutropenia), granulocytes , haematocrit
- Continuous cardio-respiratory monitoring
- Blood pressure

Comments

Erythropoietin will not stimulate sustained red blood cell production if iron deficiency develops

Routine iron supplementation should be given in conjunction with erythropoietin.

DO NOT give INTRAMUSCULARLY

Subcutaneous route is as effective as intravenous

Although data are conflicting, erythropoietin may be associated with retinopathy of prematurity (ROP). The risk may be reduced for stage greater than 3 ROP if erythropoietin is initiated before 8 days of age.

Related Policies, Procedures & Guidelines

CAHS Neonatology Clinical Guidelines:

[Anaemia and Bleeding Disorders](#)

[Neonatal Medication Administration: Intramuscular, Subcutaneous, Intravascular](#)

References

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