Clinical Guideline
Erythropoietin

Policy developed by: SA Maternal, Neonatal & Gynaecology Community of Practice
Approved SA Health Safety & Quality Strategic Governance Committee on: 9 November 2017
Next review due: 9 November 2020

Summary
The purpose of this guideline is to guide nursing, medical and pharmacy staff in the dosing and administration of erythropoietin

Keywords
erythropoietin, neonatal medication guideline, recombinant human erythropoietin, EPO, anaemia, epoetin alfa, epoetin, PAEAN, clinical trial

Policy history
Is this a new policy? Y
Does this policy amend or update an existing policy? N
Does this policy replace an existing policy? N
If so, which policies?

Applies to
All SA Health Portfolio
All Department for Health and Ageing Divisions
All Health Networks
CALHN, SALHN, NALHN, CHSALHN, WCHN, SAAS

Staff impact
All Clinical, Medical, Midwifery, Nursing, Students, Allied Health, Emergency, Mental Health, Pathology, Pharmacy

PDS reference
CG271

Version control and change history

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<thead>
<tr>
<th>Version</th>
<th>Date from</th>
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<tbody>
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<td>1.0</td>
<td>9 November 2017</td>
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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

Synonyms:
Recombinant human erythropoietin, EPO

Dose and Indication

For the treatment of anaemia of prematurity in selected patients such as Jehovah’s witnesses

Intravenous/subcutaneous

250 Units/kg/dose three times a week, starting within three days of birth and continuing for six weeks

Preparation and Administration

Intravenous/subcutaneous

Inject over 1 to 3 minutes

<table>
<thead>
<tr>
<th>Dose</th>
<th>200 Units</th>
<th>400 Units</th>
<th>600 Units</th>
<th>800 Units</th>
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<tbody>
<tr>
<td>Volume</td>
<td>0.1mL</td>
<td>0.2mL</td>
<td>0.3mL</td>
<td>0.4mL</td>
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Discard remaining solution.

Compatible fluids

No data
Adverse effects

Common
Diarrhoea, vomiting, increase in platelet count, increase in blood pressure, fever, rash

Rare
Neutropenia, seizures, thrombotic events, Pure red cell aplasia (with subcutaneous administration in chronic kidney disease)

Monitoring
> Red blood cell response (Haemoglobin, ferritin, platelets)
> Blood pressure

Practice Points
> 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.
> Epoetin alfa is preferred when dose is equal to or less than 1000 units. For doses greater than 1000 units, epoetin beta can be used.
> There is no paediatric experience with epoetin lambda. Its use in neonates is thereby discouraged.
> Erythropoietin may be co-administered with parenteral nutrition and parenteral iron. (the parenteral nutrition protein component is critical to the stability of erythropoietin)
> Use the clinical trial protocol if administering erythropoietin for a clinical trial (e.g. PAEN)

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PDS reference: OCE use only

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