HUMAN RECOMBINANT ERYTHROPOIETIN (EPO)

DESCRIPTION
Erythropoietin (EPO) is an endogenous glycoprotein that stimulates red blood cell production normally produced by the kidney.

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

PHARMACOKINETICS
Adequate iron and protein intake is necessary for EPO to be effective. Subcutaneously administered drug appears to be pharmacodynamically as effective as IV, despite only 40% bioavailability. Half-life in preterm infants is approximately 12 hours.

PRESENTATION
1000U/0.5ml

DOSE
400U/kg/dose 3 times weekly (Mon/Wed/Fri). Can be commenced as early as 4 days after birth and can be continued through 35th postmenstrual week. Infants should be given a weekly intravenous infusion of 5mg/kg iron dextran until they have an enteral intake of at least 60ml/kg/day. Once they are on enteral feeds of 60mg/kg/day, they can be given 3mg/kg/day of enteral iron. Once the baby’s enteral intake is 120ml/kg/day, increase the elemental iron to 6mg/kg/day.

ADMINISTRATION
SC INJECTION preferred
IV INJECTION over 1-2 minutes using the proximal IV bung
For IV administration, the drug can be diluted 1 in 10 with 0.9%sodium chloride.

STORAGE
Discard unused portion

MONITORING
Continuous cardio-respiratory monitoring. Monitor blood pressure. Full blood and reticulocyte count weekly.

ADVERSE EFFECT
Hypertension, seizures, neutropaenia, and thrombocytosis. Transient erythema at site of sc injection

INCOMPATIBILITY
No data available

REFERENCE
Parenteral Drug Administration by James B Carlton. 4th ed 1997;p 99
Australian Injectable drugs. 2nd ed 1997;p 138.

Revised: 10 April 2014