

ROYAL HOSPITAL FOR WOMEN	APPROVED: NCC QUALITY COMMITTEE
DEPARTMENT MANUAL: DIVISION OF NEWBORN SERVICES	DATE: 12 <sup>th</sup> May 2014

**NEWBORN USE ONLY  
GIVEN ON DOCTORS ORDER ONLY**

**HUMAN RECOMBINANT ERYTHROPOIETIN (EPO)**

<b>DESCRIPTION</b>	Erythropoietin (EPO) is an endogenous glycoprotein that stimulates red blood cell production normally produced by the kidney.
<b>USE</b>	To decrease the need for RBC transfusions in extremely low birth weight babies.
<b>PHARMACOKINETICS</b>	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.
<b>PRESENTATION</b>	1000U/0.5ml
<b>DOSE</b>	400U/kg/dose 3 times weekly (Mon/Wed/Fri). Can be commenced as early as 4 days after birth and can be continued through 35 <sup>th</sup> 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.
<b>ADMINISTRATION</b>	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.
<b>STORAGE</b>	Discard unused portion
<b>MONITORING</b>	Continuous cardio-respiratory monitoring. <b>Monitor blood pressure.</b> Full blood and reticulocyte count weekly.
<b>ADVERSE EFFECT</b>	Hypertension, seizures, neutropaenia, and thrombocytosis. Transient erythema at site of sc injection
<b>INCOMPATIBILITY</b>	No data available

**REFERENCE**

Ohls RK et al. Effects of early erythropoietin therapy on the transfusion requirements of preterm infants below 1250 grams birth weight: A multicenter, randomized, controlled trial. *Pediatr* 2001;108: 934-42.  
 Young TE, Mangum B; Neofax: A Manual of drugs used in neonatal care, ed 14. Raleigh, North Carolina: Acorn Publishing, USA, 2001, p 70-1.  
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