

Erythropoietin Usage Guidelines

Anemia of Prematurity

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Background

Anemia of prematurity is a condition that affects very low birth weight (VLBW) infants due to reduced life span of neonatal erythrocytes, a steady expansion in blood volume due to rapid growth, and large phlebotomy losses for laboratory tests. Recombinant human erythropoietin (EPO) has been shown to be effective in reducing transfusions in VLBW infants.

Criteria for Use

Guidelines for the use of erythropoietin in neonates were determined by reviewing randomized controlled trials and are as follows:

- Gestational age at birth of 30 weeks or less
- Birth weight of 1250 grams or less
- Hematocrit of <35 % at start of treatment

Dose

Erythropoietin treatment is initiated when feedings are established and enteral iron can be given. Suggested dosing regimens are as follows:

- 300 units/kg/dose, subcutaneously, 3 times per week (Monday, Wednesday, and Friday)
- Alternatively, 300 units/kg/day for 5-10 days may be used

Supplemental Iron

Neonates treated with erythropoietin should receive supplemental oral iron at a dose of 3-6 mg/kg/day.

Duration of Therapy

Therapy with EPO should be discontinued at:

- Corrected gestational age of 34 weeks
- 6 weeks of EPO therapy have been completed **OR**
- Hematocrit >35%

References

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