

Objectives

- Describe the impact that transitional events at birth have on hematologic system components and function in the early newborn period
- Relate the neonatal alterations in the hematologic system and hemostatic processes to specific implications for clinical assessment and care in the neonatal period
- Summarize the maturational changes that occur in the hematologic system extending into infancy and childhood and explain the significance in terms of essential clinical evaluation and management

Content Outline

1. Transitional Hematologic Events Occurring at Birth
2. Early Changes and Characteristics of Neonatal Hematologic Parameters
 - 2.1 Blood volume
 - 2.2 Hemoglobin & hematocrit
 - 2.3 Blood cells
 - 2.4 2,3 DPG & Erythropoietin
3. Neonatal Hemostatic Alterations
4. Clinical Implications of Alterations in Hematologic System and Hemostatic Processes
 - 4.1 Factors impacting hematologic values
 - 4.2 Changes in hemoglobin-oxygen affinity & disorders of hemoglobinopathy
 - 4.3 Vitamin K deficiency bleeding disorders & infant at risk for disorders of hemostasis
 - 4.4 Conditions of polycythemia, hyperviscosity and anemia
 - 4.4.1 Physiologic anemia of infancy
 - 4.4.2 Anemia of prematurity
5. Aspects of Iron Supplementation and Blood Transfusion in the Term and Preterm Neonate
6. Hematologic Maturational Changes in Infancy and Childhood

Reading Material Resources

This NCC CE module is based on the resources listed below.

The reading materials are in the form of a PDF and can be accessed from the NCC online testing center or your NCC account once the module is purchased.

Maternal, Fetal & Neonatal Physiology - A Clinical Perspective, Blackburn ST. Elsevier, 2013, Chapter 8 Hematologic and Hemostatic Systems, pages 234-247 (neonatal content).