

Objectives

- Recognize the clinical features & progression of jaundice as a sign of hyperbilirubinemia & as a risk factor for the development of bilirubin encephalopathy & kernicterus
- Relate bilirubin in its indirect & direct reacting forms to implications impacting the assessment & management of the newborn
- Trace the conjugation of bilirubin from production through excretion phases realizing the potential clinical implications of each phase
- Outline the clinical assessment & management of the infant with jaundice to include pre & post discharge care & follow-up incorporating the 2004 American Academy of Pediatrics recommendations regarding the approach to neonatal hyperbilirubinemia
- Based upon pathophysiology, relate the appropriate interventions indicated for infants with hyperbilirubinemia including implications for monitoring & care when an intervention is used

Content Outline

1. Neonatal Jaundice as a Sign of Hyperbilirubinemia
 - 1.1 Description & Clinical Features of jaundice
 - 1.2 Definition of Hyperbilirubinemia
2. Bilirubin Metabolism & Pathophysiology
 - 2.1 Overview of bilirubin characteristics
 - 2.2 Production Phase
 - 2.2.1 Maturational process
 - 2.2.2 Hemolytic process
 - 2.2.3 Infectious process
 - 2.3 Transport & Conjugation Phases
 - 2.4 Excretion Phases
 - 2.4.1 Enterohepatic circulation
3. Assessment
 - 3.1 Clinical
 - 3.2 Laboratory
 - 3.3 Use of AAP nomogram & clinical guidelines
4. Interventions (AAP recommendations incorporated)
 - 4.1 Related to general newborn care
 - 4.2 Phototherapy
 - 4.3 Exchange transfusion
 - 4.4 Pharmacologic
 - 4.5 Related to pre-discharge planning
 - 4.6 Related to post discharge recommendations

Reading Material Resources

This self assessment module is based on the resources listed below.

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

NCC PowerPoint Educational Resource, Neonatal Hyperbilirubinemia, Byrd, Frances H., NCC, Chicago, IL 2009.