Pre discharge screening and management of unconjugated hyperbilirubinemia in asymptomatic term and late preterm neonates (gestational age >35 weeks)

Goals -

- The goal for pre discharge screening is to identify at risk neonates and prevent mortality and morbidity during infancy of adverse outcomes of severe hyperbilirubinemia.
- When neonates are screened, monitored and treated approveriately and in a timely manner, almost all infants with hyperbilirubinemia, even those with risk factors, will have benign outcomes and avoid the adverse effects of bilirubin induced neurologic dysfunction.



TB: total plasma/serum bilirubin; TcB: transcutaneous bilirubin; ROR: rate of rise.

* Exchange transfusion is indicated for any symptomatic infant due to bilirubin-induced neurotoxicity. While setting up for the exchange transfusion, intensive phototherapy is initiated.

¶ TB and TcB values are plotted on the age-specific (hourly), percentile-based Bhutani nomogram. A confirmatory TB value is obtained when TcB measurement exceeds the 95th percentile on the TcB nomogram or 75th percentile on the TB nomogram.

 Δ Clinical assessment for risk factors for severe hyperbilirubinemia (TB >20 mg/dL [342 micromol/L]) entails documenting the presence of jaundice, evidence of hemolytic disease (glucose-6-phosphate dehydrogenase deficiency), evidence of significant bruising (cephalohematoma), gestational age 35 to <37 weeks, previous sibling having received phototherapy, exclusive breastfeeding with excessive weight loss, and East Asian ethnicity.

◊ The risk for severe hyperbilirubinemia and the threshold for intervention (phototherapy and exchange transfusion) can be determined using the newborn hyperbilirubinemia assessment calculator based on TB and the presence of concomitant risk factors. The newborn hyperbilirubinemia assessment calculator provides information when the threshold has been reached for either phototherapy or exchange transfusion. Risk categories for asymptomatic newborns include: term infants without risk factors, term infants with risk factors, late preterm infants without risk factors, and late preterm infants with risk factors.

§ Criteria for intervention are determined by TB and the presence of concomitant risk factors.

Reference:

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