

Neonatal Jaundice

3/25/2017

Physiology: RBC hemoglobin -> unconjugated bilirubin -> conjugated bilirubin (liver) -> stool

Kernicterus: brain damage from severe hyperbilirubinemia (\uparrow 25 mg/dL)

Conjugated hyperbilirubinemia is rare in kids but always pathologic

Etiologies of hyperbilirubinemia

1) \uparrow RBC Turnover

- a. Consider sepsis, Rh incompatibility, RBC disorders (do: sepsis eval/type and screen)
- b. Common benign causes: maternal DM or scalp hematoma,

2) Decreased conjugation (liver)

- a. Physiologic peak at 5-ish days of life. Usually not $\uparrow\uparrow\uparrow$
- b. Congenital liver disorders (Gilber/Crigler Najar) can get very high bili
- c. Breast milk jaundice – progesterone metabolite in breast milk inhibits conjugation

3) Decreased excretion (can't get out of GI tract)

- a. Bowel obstruction
- b. Breast feeding failure jaundice (dehydrated and decreased stools)

Prevent Kernicterus: measure bili and compare to normogram, treat if above cutoff, consider consulting peds for **phototherapy or exchange transfusion** (if very high)

Quick facts:

- Kernicterus is a reportable condition, meaning it can nearly always be prevented with good care.
- Rate of elevation matters a lot and plays into the treatment approach. Compare with birth bili if you can.