

Hyperbilirubinemia					
Definition	Infants \geq 35 wks GA: TB > 95 th percentile (2004 AAP Guidelines/Bhutani nomograms)				
Pathophys	<p>\uparrow RBC turnover, \downarrow clearance (UGT1A1 activity), \uparrow enterohepatic recirculation. Within first 24 hours of life = ALWAYS pathologic.</p> <table border="1"> <thead> <tr> <th>Indirect</th><th>Direct - ALWAYS pathologic</th></tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Breastfeeding jaundice: first week of life due to insufficient feeding • Breast milk jaundice: persistent after first week of life, unknown mechanism, ?substance in milk blocks bilirubin breakdown • ABO or Rh incompatibility: suspect if set-up, previous child with hemolytic disease of the newborn, fetal hydrops, jaundice in the first 24 hours of life • Red cell membrane defects (spherocytosis and elliptocytosis) • G6PD deficiency • Sepsis • Decreased clearance – Crigler-Najjar syndrome, Gilbert syndrome • Intestinal obstruction </td><td> <ul style="list-style-type: none"> • Anatomic (intestinal obstruction, cysts, tumors, biliary atresia) • Infection/sepsis • Metabolic • Gestational alloimmune liver disease (neonatal hemochromatosis) </td></tr> </tbody> </table>	Indirect	Direct - ALWAYS pathologic	<ul style="list-style-type: none"> • Breastfeeding jaundice: first week of life due to insufficient feeding • Breast milk jaundice: persistent after first week of life, unknown mechanism, ?substance in milk blocks bilirubin breakdown • ABO or Rh incompatibility: suspect if set-up, previous child with hemolytic disease of the newborn, fetal hydrops, jaundice in the first 24 hours of life • Red cell membrane defects (spherocytosis and elliptocytosis) • G6PD deficiency • Sepsis • Decreased clearance – Crigler-Najjar syndrome, Gilbert syndrome • Intestinal obstruction 	<ul style="list-style-type: none"> • Anatomic (intestinal obstruction, cysts, tumors, biliary atresia) • Infection/sepsis • Metabolic • Gestational alloimmune liver disease (neonatal hemochromatosis)
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Evaluation	<ul style="list-style-type: none"> • Healthy infants: Obtain routine transcutaneous bili (TcB)i @ DOL2 and plot on bilitool.org. If ABO/ Coombs set-up, check TcB @ 12HOL and 24HOL. <ul style="list-style-type: none"> ■ Determine follow-up frequency based on risk for developing severe hyperbili (use risk zone, which is generated by nomogram + GA + presence of hyperbili risk factors [jaundice in first 24 hours, ABO incompatibility/positive direct Coombs, GA 35-36w, sibling required phototherapy, cephalohematoma, exclusive breastfeeding, East Asian race]) ■ Determine phototherapy threshold based on neurotoxicity risk (use GA + presence of neurotoxicity risk factors [isoimmune hemolytic disease, G6PD, asphyxia, lethargy, temp instability, sepsis/acidosis, albumin <3.0) <ul style="list-style-type: none"> • If above phototherapy threshold, check total serum bili (TSB). Once TSB is used, TcB may not be used again. • Consider checking CBC, retics, hemolysis labs (LDH, haptoglobin, smear), G6PD activity. 				
Management	Reconsider early discharge (before 72 HOL) if bili high ntermediate risk+. Phototherapy as per bilitool curves. If near exchange levels: aggressive phototherapy, aggressive hydration (IV+PO). IVIG for isoimmune hemolytic disease. Call blood bank before exchange transfusion				

Infant of a Diabetic Mother (IDM)	
Increased Risks	LGA (BW \geq 4000g or \geq 90 th percentile for GA) \rightarrow birth injury (shoulder dystocia, clavicular fracture), preterm birth, RDS/TTN , hypoglycemia (maternal hyperglycemia \rightarrow infant hyperinsulinism \rightarrow hypoglycemia; resolves in 2-4d), hypertrophic cardiomyopathy (of interventricular septum), hyperbili , polycythemia (Hct > 65% \rightarrow hyperviscosity \rightarrow exchange transfusion if symptomatic)
Congenital Anomalies	Transpo of great arteries , double outlet RV, VSD, truncus arteriosus, hypoplastic L heart syndrome, small L colon syndrome \rightarrow functional lower bowel obstruction (contrast enema is diagnostic and curative)
Management	Obtain glucose at 2-4HOL, then pre-feed until glucoses stabilize. Consider checking Hct in first hours of life. Check Ca ⁺⁺ /Mg if jittery or seizure

IDM continued on next page \rightarrow