Bilirubin

Bilirubin is a yellowish substance in your blood. It forms after red blood cells break down, and it travels through your liver, gallbladder, and digestive tract before being excreted. Typically, bilirubin levels fall somewhere between 0.3 and 1.2 milligrams per deciliter (mg/dL).

A retrospective study was conducted on neonates born from January 2021-June 2022, excluding those with specific conditions. Evaluated factors included GA, birth weight, bilirubin levels, glucose-6-phosphate dehydrogenase (G6PD) deficiency, and feeding type, with phototherapy given as per AAP guidelines. Of 1085 neonates, 356 met the criteria. When stratifying the neonates based on the need for phototherapy, a higher proportion of early-term neonates required phototherapy compared to full-term ($p < 0.05$). After factoring in various risks (GA; birth weight; gender; feeding type; G6PD deficiency; transcutaneous bilirubin levels at 24 h and 24-48 h postpartum; maternal diabetes; and the presence of caput succedaneum or cephalohematoma), early-term neonates were more likely to need phototherapy than full-term babies (OR: 2.15, 95% CI: 1.21 to 3.80). The optimal cut-off for transcutaneous bilirubin levels 24-48 h postpartum that were used to predict phototherapy need was 9.85 mg/dl. In conclusion, early-term neonates are at a greater risk for developing jaundice and requiring phototherapy than full-term neonates. Monitoring bilirubin 24-48 h postpartum enhances early prediction and intervention [1].

1)
Tan TJ, Chen WJ, Lin WC, Yang MC, Tsai CC, Yang YN, Yang SN, Liu HK. Early-Term Neonates Demonstrate a Higher Likelihood of Requiring Phototherapy Compared to Those Born Full-Term. Children (Basel). 2023 Nov 16;10(11):1819. doi: 10.3390/children10111819. PMID: 38002910; PMCID: PMC10670379.