

# Correlation of Neonatal Hyperbilirubinemia by Clinical Assessment, Total Serum Bilirubin and Transcutaneous Bilirubin among Healthy Neonates

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## Abstract

Neonatal hyperbilirubinemia one of the most common clinical signs encountered in newborn babies. It is the result of bilirubin deposited in the skin and mucus membrane. Reticuloendothelial system is the major source of bilirubin due to breakdown of senescent RBC. Bilirubin is conjugated by the liver in to water soluble product which is excreted easily. Due to immaturity of the neonatal hepatic enzymes newborns are at risk of developing jaundice. The free bilirubin crosses the blood-brain barrier easily which causes encephalopathy called kernicterus in the immediate period, and has a potential to damage brain causing cerebral palsy and other complications. The mainstay treatments to prevent and manage bilirubin encephalopathy are phototherapy and exchange transfusion which has been a major subject of investigation over the last 6-7 decades. To prevent bilirubin induced neurologic damage requires repeated blood withdrawal to ascertain exact bilirubin levels. So non-invasive and painless screening by use of transcutaneous bilirubinometer is becoming more acceptable. However, in preterm neonates the use of transcutaneous bilirubinometer is still under scrutiny. Transcutaneous bilirubin measuring devices have undergone changes to make them overcome previous inconsistency of results in preterms and dark skinned newborns. Studies



