

OFFICE OF THE DEAN & PRINCIPAL, S.C.B. MEDICAL COLLEGE, CUTTACK

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As per the intramural project of MRU, SCB Medical College and Hospital which is published in Pubmed indexed journal "Transfusion Clinique et Biologique" titled "Hyperbilirubinemia in neonates with blood group incompatibilities – A bane or a boon for the management", the following policy is recommended to be implemented in SCB Medical College and Hospital for better management of Hemolytic Disease of Fetus and Newborn.

Antenatal Screening

- All pregnant women shall undergo blood group (ABO and RhD) and antibody screening at the first antenatal visit.
- Repeat antibody screening should be performed at 28 weeks of gestation and/or at delivery.
- Maternal antibody titration shall be performed in case of positive antibody screening.
- Pregnancies with known or suspected blood group incompatibilities (e.g., Rh-negative mother with Rh-positive partner, O group mother with A or B group partner) shall be identified as high-risk for neonatal hyperbilirubinemia.
- In suspected abo incompatible cases, maternal anti A/B (IgG) titration shall be performed.

Neonatal Screening

For all neonates born to mothers with known blood group incompatibility, cord blood samples shall be collected for:

- ABO and RhD blood grouping.
- Direct Antiglobulin Test (DAT).
- Total Serum Bilirubin (TSB) and Hemoglobin (Hb) levels.
- Peripheral smear for features of hemolytic anemia.

Management

Phototherapy shall be initiated based on the American Academy of Pediatrics (AAP) guidelines, considering the neonate's age (in hours), gestational age, and TSB levels.

- Neonates with blood group incompatibility, especially ABO+Rh and pure Rh incompatibility, may require longer phototherapy durations.
- For ABO incompatible neonates, a positive DAT result should prompt consideration for potentially longer phototherapy courses.
- If we screen high risk pregnancies and neonates, and start phototherapy earlier, invasive procedures like exchange transfusion can be avoided.

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