Well Baby and Intermediate Care Nursery Bilirubin Care Process Map

This screening process replaces initial routine Direct Antiglobulin Test (Coombs Test) screening in infants born to O+ and Rh+ mothers. For infants born to Rh- mothers, maternal blood will be typed and screened on admission for delivery and newborn DAT screening will be performed. Bilirubin percentiles are based on the Utah Neonatal Bilirubin Nomogram.

Obtain a screening TcB 1 hour prior to Newborn Metabolic Screen or immediately for clinical jaundice

- TcB < 85th percentile
  - Continue to monitor for jaundice and order TcB if clinically indicated

- TcB 85-95th percentile
  - Confirm TcB with TsB
    - TsB 85-95th percentile
      - TsB > 95th (<99th) percentile
        - Obtain an ETCO
        - ETCO < 2 ppm
        - Non-Hemolytic Hyperbilirubinemia
          + Start or transition to standard phototherapy if TcB is >95th to 99th percentile OR intensive phototherapy if TcB is >99th percentile
          + Discontinue phototherapy when TcB is <85th percentile
          + Repeat TcB 12-24 h after stopping phototherapy if inpatient. Repeat TcB should not delay discharge with appropriate outpatient follow-up in place

    - TsB > 95th (<99th) percentile
      - Obtain newborn DAT and blood type (if not already obtained)

- TcB > 95th percentile
  - Confirm TcB with TsB
    - TsB > 95th (<99th) percentile
      - Obtain an ETCO
      - ETCO ≥ 2 ppm
      - Hemolytic Hyperbilirubinemia
        + Start intensive phototherapy and recheck a TcB after 3 h if >99th OR 6 h if >95th percentile. Consult Neonatology if bilirubin level increases despite intensive phototherapy OR the infant develops signs of encephalopathy (lethargy, high-pitched cry, hypertonia)
        + Treat with intensive phototherapy until bilirubin is <95th percentile then transition to standard phototherapy until TcB is <85th percentile
        + Transition to home phototherapy equipment and repeat TcB in 6 h
        + Restart standard inpatient phototherapy if repeat bilirubin is not downtrending 6 h after transition to home phototherapy
        + If DAT negative and not responding appropriately to phototherapy, consult Hematology to discuss additional studies

Outpatient Follow-up

+ Newborns should have clinical follow up in 24 h if treated inpatient for hemolytic hyperbilirubinemia and 24-48 h if treated for non-hemolytic hyperbilirubinemia (or earlier than 48 h for additional concerns)
+ If repeat total serum bilirubin is not downtrending after home phototherapy, or TsB is > 23 mg/dL at any time, readmit to the hospital

1. Obtain TcB for all subsequent bilirubins after first confirmation TsB under patch if patch placed before initiation of phototherapy. If no patch was placed before initiation of phototherapy, serum bilirubins must be drawn for follow up. Screening TcB is timed 1 hour prior to Newborn Metabolic Screen (NMS) to allow TsB to be drawn at the same time as the NMS to minimize blood draws.
2. NMS draws are timed for the first possible draw at 0700, 1000, 1400, 1800, 2200 after infant is 24 hours of age.
3. Cord blood samples for all infants not initially sent to the blood bank for DAT and blood type due to maternal Rh- status will be stored on MNBC for 7 days to be used for newborn DAT, blood type and additional studies if needed in the setting of hemolytic hyperbilirubinemia.

Owner: Julie Shakib, DO

Version date: February 7 2021