Management of neonatal jaundice

**Risk factors**
- Maternal
  - Blood group O
  - Rh D negative
  - Red cell antibodies
  - Genetic–family history, East Asian, Mediterranean
  - Diabetes
  - Previous jaundiced baby required phototherapy

- Neonatal
  - Feeding—BF, reduced intake
  - Haematoma or bruising
  - Polycythaemia
  - Haemolysis causing factors
  - Bowel obstruction
  - Infection, preterm, male

- All babies
  - Assess for risk factors
  - Examine for jaundice—visual/TcB

**Urgent medical response**
- Check maternal ABO and Rh D blood group and red cell antibody screening
- Blood tests:
  - Urgent TSB including conjugated and unconjugated
  - FBC
  - ABO group; type Rh D (or other if other maternal antibodies)
  - DAT
- Consider in select babies:
  - Urea and electrolytes
  - Blood culture
  - Congenital infection screen
  - Screen for inborn errors of metabolism (unwell baby/ severe jaundice)
  - Urine MCS
  - C-reactive protein
- If conjugated bilirubin ≥ 25 micromol/L or ≥ 10% of total bilirubin ( whichever is greater) OR pale stools:
  - Urgent LFT/BGL/INR
  - Discuss referral to paediatric surgeon/gastroenterologist

**Management**
- Plot TSB on nomogram (gestation, weight and age appropriate) for treatment regimen
- Treat/manage underlying disease
- Commence phototherapy as indicated
- Nutrition—support breast feeding and adequate intake of formula feeding babies
- Assess output—volume/amount and colour (especially pale stools)
- Exchange transfusion—refer to tertiary centre
- Discuss management plan with parents
- Provide QCG parent information

- Check maternal ABO and Rh D blood group and red cell antibody screening
- Blood tests:
  - ABO and RhD type, DAT
  - Other tests as indicated (as above)

- Often BF related
- History and clinical examination
- Blood tests:
  - TSB including conjugated and unconjugated
  - FBC and reticulocytes
  - TFT/LFT
- Check for dark urine and/or pale stools
- Check NBST for inborn errors of metabolism (repeat)
- Consider:
  - G6PD screen; transferase deficiency and red cell membrane disorders
  - CF—sweat test/genetic markers
  - Inborn errors of metabolism
  - Urine MCS, CMV and reducing substances
  - Abdominal ultrasound

**Abbreviations:**
- BF breastfeeding
- BGL blood glucose level
- CF cystic fibrosis
- CMV cytomegalovirus
- DAT direct antiglobulin test
- FBC full blood count
- G6PD glucose 6 dehydrogenase deficiency
- INR international normalised ratio
- LFT liver function tests
- MCS microscopy, culture and sensitivity
- NBST newborn bloodspot screening test
- Rh thersus
- TcB transcutaneous bilirubin
- TFT thyroid function tests
- TSB total serum bilirubin
- USS ultrasound scan

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