Management of neonatal jaundice

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

**Baby appears jaundiced?**
- Yes
- No

### Medical emergency
- Check maternal ABO and RhD type and red cell antibody screening
- Blood tests:
  - Urgent TSB including conjugated and unconjugated
  - FBC
  - ABO group; type RhD (or other if other maternal antibodies)
  - DAT
- Consider:
  - Urea and electrolytes
  - LFT
  - Albumin
  - C-reactive protein
  - Blood culture
  - Urine MCS
  - Congenital infection screen
  - Screen for inborn errors of metabolism (unwell baby/severe jaundice)

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

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

### Management
**If conjugated bilirubin elevated:**
- Urgent LFT/BGL/INR
- Refer to paediatric surgeon/gastroenterologist

- 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
- Exchange transfusion—refer to tertiary centre
- Discuss management plan with parents
- Provide parents with information brochure

### Phototherapy
- Check spectral irradiance and output of light source
- Repeat TSB as per nomogram
- Plot TSB levels on nomogram (gestation, weight and age appropriate)
- If TSB rising consider intensive phototherapy
- Nurse baby unclothed except for nappy
- Protect eyes
- Continuous observation of baby
- Monitor baby’s temperature
- Continue normal oral feeds
- Assess hydration status
- Discontinue depending on baby’s age, TSB and cause of hyperbilirubinemia

**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; NST Neonatal screening test; Rh Rhesus; TcB Transcutaneous bilirubin; TFT Thyroid function tests; TSB Total serum bilirubin; USS Ultrasound scan; < Less than; > Greater than

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