



Topic Expert Group: Medical care and clinical practice

Neonatal jaundice

Borszewska-Kornacka M, Buonocore G, Zimmermann L, Hellström-Westas L, Marlow N, Özek E, Perrone S, Tołoczko J

Target group

Newborn infants and parents

User group

Healthcare professionals, neonatal units, hospital, and health service

Statement of standard

All newborn infants are assessed for neonatal jaundice with the aim of implementing effective prevention of severe hyperbilirubinaemia.

Rationale

Hyperbilirubinaemia is common in newborn infants. Physiological jaundice appears after the first 24 hours of life and usually resolves spontaneously within the first week. However, neonatal hyperbilirubinaemia may also become more severe and require treatment to prevent or treat bilirubin encephalopathy and risk of later cerebral palsy and hearing deficiencies. Monitoring of bilirubin levels in all newborn infants, and awareness of risk factors, are vital for adequate management. Risk factors for severe neonatal hyperbilirubinaemia include: prematurity, haemolytic disorders, early jaundice (<24 hours), bruising and haematoma after delivery, infections, excessive weight loss, family history of jaundice – including conditions such as spherocytosis, conjugation disorders, and haemoglobinopathies, for example sickle cell anaemia and glucose-6-phosphate dehydrogenase deficiency (G6PD), which are more prevalent in Mediterranean, African and Asian populations. (1–3)

Phototherapy is effective in reducing bilirubin concentrations. Initiation of phototherapy should take into account the gestational age, postnatal age and risk factors. Phototherapy usually may be implemented without separating mother and infant. Severe hyperbilirubinaemia may be treated effectively by blood exchange transfusion and the use of gammaglobulin may reduce the need for exchange transfusion in the presence of ongoing haemolysis. (4,5)

In most European countries, national professional societies and health services have developed comprehensive guidelines and charts for the management of hyperbilirubinaemia in their populations, which should be followed. (6–12) It is also critical to monitor for prolonged jaundice (greater than 14 days) in newborn infants and investigation should detect the presence of conjugated hyperbilirubinaemia in such infants. (4,13,14)

Benefits

Short-term benefits

- Reduced occurrence of severe neonatal jaundice (4,15,16)
- Reduced length of hospital/NICU stay (5)



- Early detection of cholestasis (17)

Long-term benefits

- Reduced neurological complications (16)
- Reduced occurrence of hearing loss (16)
- Reduced hospital readmission (17)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family		
1. Parents are informed by healthcare professionals about identification, prevention, and management of hyperbilirubinaemia. (2,14,15)	A (Moderate quality) B (High quality)	Patient information sheet
2. Parents are informed by healthcare professionals about the role of breastfeeding and adequate nutrition in the prevention of hyperbilirubinaemia. (4) (see TEG Nutrition, see TEG Care procedures)	A (High quality) B (High quality)	Patient information sheet
For healthcare professionals		
3. A unit guideline on hyperbilirubinaemia including management after discharge is adhered to by all healthcare professionals.	B (High quality)	Guideline
4. Transcutaneous bilirubinometers is used to screen newborn infants for hyperbilirubinaemia. (3,18–23)	A (High quality)	Guideline
5. Training in the management of hyperbilirubinaemia is attended by all healthcare professionals. (4,16)	A (High quality) B (High quality)	Training documentation
For neonatal unit		
6. A unit guideline on hyperbilirubinaemia including management after discharge is available and regularly updated.	B (High quality)	Guideline
For hospital		
7. Training in the management of hyperbilirubinaemia is ensured.	B (High quality)	Training documentation
8. Equipment for the diagnosis and management of hyperbilirubinaemia, including transcutaneous	B (High quality)	Audit report



bilirubinometers, is provided.

For health service		
9. A national guideline on management of hyperbilirubinaemia including management after discharge is available and regularly updated.	B (High quality)	Guideline
10. Systems for the identification of prolonged jaundice are available and audited. (4)	A (High quality)	Audit report, guideline

Where to go – further development of care

Further development	Grading of evidence
For parents and family N/A	
For healthcare professionals N/A	
For neonatal unit N/A	
For hospital N/A	
For health service	
<ul style="list-style-type: none"> Support research in new therapeutic modalities, cost effectiveness, and improvement in technology. (24) 	A (Moderate quality)

Getting started

Initial steps
For parents and family
<ul style="list-style-type: none"> Parents are verbally informed by healthcare professionals about identification, prevention, and management of hyperbilirubinaemia.
For healthcare professionals
<ul style="list-style-type: none"> Attend training in the management of hyperbilirubinaemia.
For neonatal unit
<ul style="list-style-type: none"> Use published guidelines regarding management of hyperbilirubinaemia including management after discharge. (17) Develop and implement a unit guideline on hyperbilirubinaemia including management after discharge. Develop information material about identification, prevention, and management of hyperbilirubinaemia for parents.
For hospital



- Support healthcare professionals to participate in training in the management of hyperbilirubinaemia.
- Provide equipment for non-invasive measurement of bilirubin.

For health service

- Develop and implement a national guideline on hyperbilirubinaemia including management after discharge.

Source

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Lifecycle

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