



SPANISH ASSOCIATION OF PAEDIATRICS

Guidelines for prevention, detection and management of hyperbilirubinaemia in newborns of 35 or more weeks of gestation[☆]



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KEYWORDS

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Abstract Hyperbilirubinaemia is one of the most frequent causes of hospital readmission during the first week of life. Its detection is still a big challenge, mainly due to the early discharge from the hospital that can be associated with a delay of the diagnosis.

The identification of those newborns at risk of developing significant hyperbilirubinaemia is one of the main priorities in the public health care system.

An approach to the management of newborn jaundice is presented in this article, following the recommendations based on the medical evidence and on the opinion of the Standards Committee of the Spanish Society of Neonatology.

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PALABRAS CLAVE

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Recomendaciones para la prevención, la detección y el manejo de la hiperbilirrubinemia en los recién nacidos con 35 o más semanas de edad gestacional

Resumen La hiperbilirrubinemia representa la causa más común de reingreso hospitalario en la primera semana de vida. Su detección continúa siendo un desafío, debido especialmente al alta precoz que puede asociarse con un retraso en el diagnóstico.

La identificación de los niños con riesgo de desarrollar hiperbilirrubinemia significativa es una de las principales prioridades de la sanidad pública.

En este documento, se presenta un enfoque para el manejo de la ictericia del recién nacido, según recomendaciones basadas en la evidencia médica y en la opinión del Comité de Estándares de la Sociedad Española de Neonatología.

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Introduction

Hyperbilirubinaemia is a common medical problem and is usually benign in term and late preterm (PT) newborns.¹ It is the most frequent cause of hospital readmission in the first week of life.² Early discharge of healthy newborns, especially those in who breastfeeding (BF) has not been fully established, may be associated with delays in its diagnosis.³ In certain circumstances (glucose-6-phosphate dehydrogenase [G6PD] deficiency, sepsis, etc.) severe hyperbilirubinaemia may occur and can produce brain damage despite appropriate intervention.⁴

Much of the management of neonatal jaundice is based on low-grade evidence.^{5,6} This review proposes an approach to its management through evidence-based recommendations.^{1,7-9}

Methods

We performed a literature review searching the PubMed database (MeSH) for the following keywords: jaundice, hyperbilirubinaemia, newborn, late preterm, guidelines.

We graded the quality of the evidence with the classification established by the Center of Evidence-Based Medicine (<http://www.cebm.net>) (Table 1) and the strength of the recommendation based on the guidelines of the Canadian Task Force on Preventive Health Care¹⁰ (Table 2).

Results

Prevention strategies

Breastfed newborns are at greater risk of developing hyperbilirubinaemia than newborns fed artificial formula. However, the known risks of acute bilirubin encephalopathy are very small when weighed against the benefits of BF. The primary approach to mitigating the hyperbilirubinaemia associated to BF is to ensure that BF is successful. An insufficient energy intake and/or dehydration associated with inadequate BF may contribute to the development of

Table 1 Levels of evidence.

Level	Source of evidence
1a	Systematic review (SR) (with homogeneity) of randomised controlled trials (RCTs)
1b	Individual RCT (with narrow confidence interval)
2a	SR (with homogeneity) of cohort studies
2b	Individual cohort study (or low-quality RCT)
3a	SR (with homogeneity) of case-control studies
3b	Individual case-control studies
4	Case series (or poor quality case-control or cohort studies)
5	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"

Source: Oxford Centre for Evidence-Based Medicine.

Table 2 Grades of recommendation for specific preventive interventions.

A. There is good evidence to recommend the clinical preventive action
B. There is fair evidence to recommend the clinical preventive action
C. The existing evidence is conflicting and does not allow to make a recommendation for or against the use of the clinical preventive action; however, other factors may influence decision-making
D. There is fair evidence to recommend against the clinical preventive action
E. There is good evidence to recommend against the clinical preventive action
I. There is insufficient evidence to make a recommendation, however, other factors may influence decision-making

Source: New grades for recommendations from the Canadian Task Force on Preventive Health Care.¹⁰

hyperbilirubinaemia due to an increase in the enterohepatic circulation of bilirubin.^{11,12}

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