A NATIONAL SURVEY ASSESSING MATERNITY CARE PROFESSIONALS' KNOWLEDGE AND EXPERTISE REGARDING NEONATAL HYPERBILIRUBINAEMIA

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Background and aims

- Neonatal hyperbilirubinaemia is a physiologic phenomenon, but may cause kernicterus when severe.
- Kernicterus is preventable by timely recognition and treatment of severe neonatal hyperbilirubinaemia.
- Maternity care professionals play an important role in timely recognition of neonatal jaundice in primary care.
- We assessed maternity care professionals' knowledge and expertise regarding neonatal hyperbilirubinaemia.

Conclusions

- Background knowledge on neonatal hyperbilirubinaemia among maternity care professionals was generally adequate.
- Knowledge on neonatal hyperbilirubinaemia may be improved by further training.
- Accurate estimation of total serum bilirubin levels based on skin colour was often inadequate.
- Approaches to improve the timely recognition of jaundiced babies in primary care are needed.

Results

- **1465 unique questionnaires were completed** (16.2% of all Dutch maternity care professionals).
- Respondents were **highly representative** of the full sample in terms of age and geographical location.

- **57.6% correctly answered at least 5 out of 6 knowledge questions.**
- Knowledge was **significantly better when respondents had had in-service training** on hyperbilirubinaemia in the previous year ($p=0.02$).

- 81.6% of respondents felt (highly) skilled to assess jaundice.
- **Estimation of total serum bilirubin levels by assessing skin colour was generally poor** (see figure below).
- Suggested actions according to the perceived jaundice level were generally adequate.

Methods

- As part of an electronic newsletter distributed through their national network, maternity care professionals ($n=9065$) were invited to fill out a brief questionnaire.

N=9065

Handling of jaundice

- Photos of jaundiced neonates ($n=3$) were used to assess respondents' capability to estimate total serum bilirubin (TSB).
- Maternity care professionals were asked to choose one out of six possible TSB ranges based on these photographs and case descriptions.

Estimation of total serum bilirubin

The results of one of the photo cases are displayed in the figure below.

- Maternity care professionals tend to underestimate TSB levels. All three cases showed comparable results.
- Only 1.9% estimated all three cases correctly. The majority (62.0%) did not estimate any of the cases correctly.