Published in final edited form as:

J Pediatr. 2009 March ; 154(3): 466. doi:10.1016/j.jpeds.2008.11.060.

Data Suggest Visual Assessment of Jaundice in Newborns is Helpful

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To the Editor:

Riskin et al¹ recently reported a large study on the accuracy of visual assessment of jaundice. Figure 2 of the paper shows that almost all of observers were within 3 mg/dL of the total serum bilirubin TSB on all of their estimates. Furthermore, it appears that only 1 or 2 of the 3532 estimates was more than 4 mg/dL below the TSB, and these were just barely so. However, Figure 1 shows many more points where the TSB exceeds the visual estimate by more than 4 mg/dL. Clarification of the apparent discrepancy between these 2 Figures would be helpful.

The authors also report that “true identification of significant hyperbilirubinemia was better at postpartum age ≤ 60 hours than later.” However, Table III shows that the area under the ROC curve for ≥ 37 week >60 hour old infants was 0.927 – the highest of any subgroup in the Table. In that group, the false negative rate was 0/594 at a cutoff of 8 mg/dL

The authors concluded that, “although there was good correlation between BiliEye [visual assessment] and actual TSB level, visual assessment was unreliable as a screening tool to detect significant hyperbilirubinemia.” I believe this conclusion is too strong. Rather, the authors’ data suggests that most observers can confidently rule out significant hyperbilirubinemia visually. As a margin of safety, experienced observers could ask themselves: “if the true TSB were 3 or 4 mg/dL higher than my estimate, would management change?” In answering this question, they should consider other risk factors as well, such as breast feeding and gestational age.^{2, 3} This is, in fact, what conscientious clinicians do. The data of Riskin et al support the use of visual assessment for decisions about which infants should have TSB levels measured.

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Edited by WFB

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