

1 **Appendix E Clinical questions**

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3 **I. RECOGNITION**

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5 ***Q1. Which factors affect the relationship between neonatal hyperbilirubinaemia***
6 ***and kernicterus or other adverse outcomes (neurodevelopmental, auditory)?***

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8 i) Factors which can be identified before birth and at birth/initial assessment (e.g
9 gestational age, ethnicity, history of previous baby treated for hyperbilirubinaemia)

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11 ii) Factors which can be identified during further testing or formal assessment (e.g
12 sepsis,
13 acidosis)

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15 ***Q2. What is the best method of recognizing hyperbilirubinaemia?***

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17 i) What is the accuracy of following tests in recognising neonatal hyperbilirubinaemia
18 at the primary and secondary level? (**TSB as the reference standard for all tests**)

- 19 a) Clinical history and examination
20 b) Urine/stool examination
21 c) Icterometer
22 d) Transcutaneous bilirubin levels

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24 ii) For home visits – timing, frequency of testing

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26 iii) by parents/carers.

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28 ***Q3. When should a baby with hyperbilirubinaemia be referred for further testing or***
29 ***formal assessment?***

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31 i) What are the indications for further testing/formal assessment in a baby with
32 neonatal hyperbilirubinaemia?

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34 ii) When should this assessment be carried out?

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37 **II. DIAGNOSIS**

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39 ***Q4. What should be included in a formal assessment of a baby with neonatal***
40 ***hyperbilirubinaemia?***

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42 i) What are the elements of a formal assessment in a baby with neonatal
43 hyperbilirubinaemia?

- 44 a) Clinical examination
45 b) Total and split bilirubin
46 c) Blood tests – blood grouping, G6PD levels, haematocrit,
47 d) Urine tests
48 e) Biochemical tests (bilirubin/albumin ratio, other relevant tests)

1 ii) What is the clinical and cost effectiveness of the tests carried out during formal
2 assessment?
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4 ***Q5. How useful are the following tests in predicting neonatal hyperbilirubinaemia?***

- 5 a) Cord bilirubin levels
- 6 b) Transcutaneous bilirubin levels
- 7 c) Timed S. Bilirubin levels
- 8 d) End tidal CO levels
- 9 e) Nomograms
- 10 f) Risk index assessment

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12 i) What is the accuracy of these tests in predicting neonatal hyperbilirubinaemia?
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14 ii) What is their effectiveness (clinical & cost) in predicting hyperbilirubinaemia and
15 preventing morbidity/mortality?
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18 **III. MANAGEMENT**

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20 ***Q6. Phototherapy***

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22 i) How effective is phototherapy?
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24 ii) What is the best modality of giving phototherapy (clinical & cost-effectiveness)?

- 25 a) Conventional phototherapy (single, double or multiple phototherapy)
- 26 b) Sunlight
- 27 c) Fibreoptic phototherapy (biliblankets, bilibeds and other products)

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29 iii) What are the criteria/indications for starting and stopping phototherapy in babies
30 with neonatal hyperbilirubinaemia?
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32 iv) What is the correct procedure of giving phototherapy?

33 Focus on the method of feeding/types of feed, incubator/bassinet care, effect of
34 intermittent vs. constant method on maternal-infant bonding, parental anxiety
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36 ***Q7. Is it beneficial to give additional fluids (cup feeds, fluids) during treatment with***
37 ***phototherapy?***
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39 What is the effectiveness of nutritional support and/or rehydration during treatment
40 with phototherapy in babies with neonatal hyperbilirubinaemia?

- 41 a) Oral – top milk feeds by bottle/cup/spoon or other liquids (water/juice)
- 42 b) Parenteral – IVF

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44 ***Q8. Exchange transfusion***

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46 i) How effective is exchange transfusion?
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48 ii) What is the best method (single volume vs. double volume exchange)?
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50 iii) What are the criteria/indications for carrying out an exchange transfusion?

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Q9. What are the other ways of treating hyperbilirubinaemia? Are they effective?

What is the effectiveness of the following interventions in treating neonatal hyperbilirubinaemia/preventing kernicterus?

- a) Metalloporphyrins
- b) Gammaglobulins
- c) Drugs (phenobarbitol, clofibrate, cholestyramine)
- d) Agar, charcoal
- e) Suppositories, other rectal modes of treatment
- f) Complementary/alternative medicines (Chinese herbal remedies like Yin-chin)

IV. MONITORING & FOLLOW-UP

Q10. How to monitor a baby with jaundice?

i) What are the appropriate criteria for monitoring (timing, frequency) of babies with jaundice who are at lower risk of developing neonatal hyperbilirubinaemia/kernicterus?

ii) What are the appropriate criteria for monitoring (timing, frequency) of babies diagnosed with neonatal hyperbilirubinaemia who do not require immediate treatment?

Q11. When to discharge a baby treated for hyperbilirubinaemia? What follow-up is required?

i) What is the appropriate criterion for discharge of babies treated for neonatal hyperbilirubinaemia?

ii) What is the appropriate timing/frequency of follow-up?

V. INFORMATION

Q13. What information and support should be given to parents/carers of babies with neonatal hyperbilirubinaemia?

- a) At the time of birth
- b) At the time of recognition of jaundice (FOR ALL BABIES)
- c) At the time of formal assessment/diagnosis
- d) During monitoring
- e) During treatment with phototherapy and other interventions
- f) At discharge and follow-up