

A 7 day old term baby boy is brought to your emergency department because his mother is concerned that he looks jaundiced.

List 6 causes for neonatal jaundice

1. Physiological jaundice
2. Prematurity
3. ABO incompatibility
4. G6PD or other red cell defect
5. Cephalohaematoma resorption
6. Increased enterohepatic circulation eg. bowel obstruction
7. Sepsis
8. Breast milk jaundice
9. Hypothyroidism
10. Conjugated hyperbilirubinaemia – biliary atresia, hepatitis

List 10 important questions in history

1. Family history of G6PD, jaundice in siblings
2. Maternal diabetes
3. Maternal blood group
4. Infections during pregnancy – TORCH screen
5. Gestational age
6. Birth weight
7. Birth trauma – cephalohaematomas
8. Vitamin K given at birth?
9. Day of onset of jaundice
10. Newborn screen done – result checked
11. Breast fed Vs bottle fed
12. Gut transit time – normal motions?
13. Vomiting or poor feeding
14. Fever
15. Pale stool

List 6 important features in physical assessment

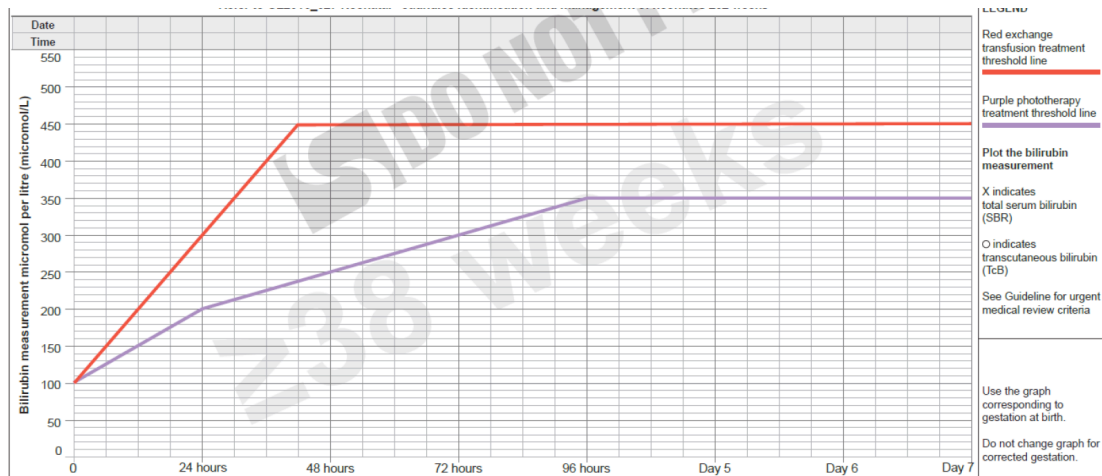
1. Weight vs birth weight
2. Hydration status
3. Fever and/or other signs of infection
4. Hepatomegaly
5. Bowel obstruction
6. Urinalysis

This baby had lost 10% of birth weight and had been feeding poorly. He was obviously jaundiced but physical examination was otherwise normal.

List 6 investigations you would perform.

1. Serum total bilirubin – used for treatment decisions, not fractionated level
2. Direct (conjugated bilirubin level) If >15% may go on to conjugated screen with LFTs, coagulation, viral serology, alpha 1 antitrypsin deficiency, hepatic US, etc)
3. Blood type and direct Coomb's test
4. Complete blood count and smear (for red cell morphology eg. hereditary spherocytosis)
5. Reticulocyte count (red cell production)
6. Urine culture, blood culture, CSF culture
7. G6PD measurement
8. Check Newborn Screen Test was actually done and normal as congenital hypothyroidism and galactosaemia are very important causes of jaundice to exclude.
9. TFTs may be done as newborn screening tests only for high TSH, not central cause of hypothyroidism
10. Urine reducing substances for metabolic screen

The total serum bilirubin was measured at 388 $\mu\text{mol/L}$. Use the attached Neonatal Jaundice Treatment Threshold Graph. List 4 features of treatment for this baby.



1. Phototherapy
2. Hydration
3. Maintain breast feeding if possible
4. Antibiotics for sepsis
5. Exchange transfusion for refractory hyperbilirubinaemia