




# Lightning Learning: Neonatal Jaundice

# #EM3

East Midlands Emergency Medicine Educational Media

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## STOP!

**Neonatal jaundice** (*aka hyperbilirubinaemia*) refers to the yellow colouration of the skin and the sclera caused by the accumulation of bilirubin.

For most babies jaundice is physiological and not harmful. **However, jaundice in the first 24 hours should always be considered pathological.**

Physiological jaundice occurs due to a high red cell turnover, together with an immature liver and gut flora.

Approximately 60% of healthy term and 80% of preterm babies develop jaundice in the first week of life. 10% of breastfed babies are still jaundiced at 1 month.<sup>(1)</sup>

### DON'T MISS THE FOLLOWING!

Jaundice is pathological if...

- The child is unwell – **THINK SEPSIS!**
- Within the first 24 hours of life – haemolysis/ sepsis or dehydration.



## LOOK

### HISTORY *Ask the parent...*

- Gestation at birth?
- Type of delivery/complications at birth?
- Any sepsis risk factors? (*e.g. maternal pyrexia, baby pyrexia, GBS infection*)
- Any wet nappies?
- Feeding history? (*e.g. bottle, breast or mixed? Volume, duration of feeds, vomits?*)

### EXAMINATION

- Are they gaining weight appropriately? Refer to the growth chart.
- POPS score – are we scoring for sepsis?
- Any evidence of jaundice? (*e.g. skin and sclera*)
- Check for signs of dehydration (*e.g. sunken fontanelle, dry mucous membranes*)
- Palpate the abdomen – is there any hepatomegaly or splenomegaly?
- Stools pale/chalky? **Biliary atresia = emergency that needs specialist intervention.**

## LEARN

### MANAGEMENT

1. **Admit for observation, if...**  
<24 hours old **OR** <35 weeks gestation
2. **Refer to prolonged jaundice clinic, if...**  
>14 days term **OR** >21 days preterm

Approach to managing jaundice depends on the age of the neonate and the various factors mentioned. Not all babies need everything!

### RELEVANT INVESTIGATIONS

- Serum bilirubin (SBR) – capillary blood gas
- Consider U&E if considerable weight loss for their age (>10%)
- If unwell, add septic screen
- Consider urine clean catch

### RESULTS

Compare total SBR to NICE nomogram for gestational age and plot on Treatment Threshold Graph.<sup>(2)</sup> This will indicate if no therapy, phototherapy **OR** exchange transfusion is required. Refer to local guidelines regarding specialty referral or discharge follow-up.

### REFERENCES

1. **Neonatal Jaundice Hospital Guideline (UHL)**  
<http://bit.ly/2JCjw3i>
2. **Treatment Threshold Graph (NICE)**  
<http://bit.ly/34QVTMx>
3. **Jaundice in newborn babies under 28 days (NICE)** <http://bit.ly/2oyCxMG>