

# Department of Paediatrics, Kalafong hospital, Neonatal Jaundice Management Flow Chart

## Management when infant is jaundiced

- Send blood for bilirubin (TSB) levels immediately.
- If infant is very jaundiced start phototherapy while waiting for the TSB result. If the value is above the line on the first graph, continue or start phototherapy.
- Check the level for exchange transfusion on the second graph. This varies depending on the baby's weight, gestational age, chronological age and illness.
- Repeat the TSB level every 12 – 24 hours, depending on the severity of the jaundice.
- Ensure the baby is getting adequate fluid intake. Encourage breastfeeding, as it enhances the excretion of bilirubin. Make sure mother has enough breastmilk – start milk expression.
- Stop phototherapy when the TSB value is 50  $\mu\text{mol/l}$  lower than the line on the graph and repeat the TSB the next day. The TSB result should be available within 1 hour from the laboratory.
- If term baby is older than 7 days and preterm older than 10 days the 50  $\mu\text{mol/l}$  rule can be ignored and photo Rx can be stopped if value is just below phototherapy value.
- Prolonged jaundice is: Jaundice > 10 days in term infants and >14 days in preterms – exclude UTI, do liver function tests, if abnormal do liver sonar.
- Jaundice during the first 24 hours of life is pathological and needs investigation.

## Phototherapy:

The distance between the mattress and the light should be about 40 cm. Make sure the light bulbs are working. The baby should be naked. Cover the baby's eyes when under phototherapy. Turn the baby over every hour.

## Exchange transfusion

This is needed if the TSB is above the line on the exchange transfusion graph.

Exchange transfusion may also be necessary if the TSB is rising with more than 17  $\mu\text{mol/l}$  per hour.

## PHOTOTHERAPY

South African Neonatal Academic Hospital Guidelines: 2006

In presence of risk factors use one line lower (the gestation below) until <1000g.

If gestational age is accurate, rather use gestational age (weeks) instead of body weight

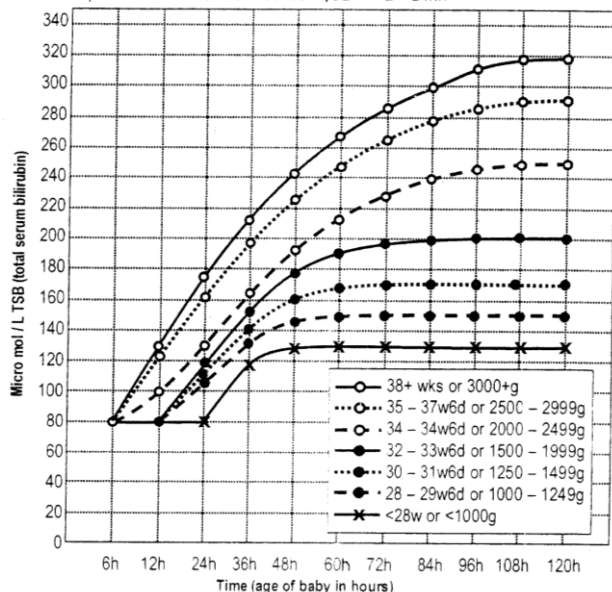
**Infants > 12 hours old with TSB level below threshold, repeat TSB level as follows:**  
 1- 20 $\mu\text{mol/L}$  below line: repeat TSB in 6hrs or start phototherapy and rept TSB in 12- 24hrs.  
 21 - 50  $\mu\text{mol/L}$  below line: repeat TSB in 12 - 24hrs.  
 >50  $\mu\text{mol/L}$  below line: rept TSB until it is falling and/or until jaundice is clinically resolving

**Infants under phototherapy:**

Check the TSB 12 - 24 hly but if TSB >30  $\mu\text{mol/L}$  above the line, check TSB 4 - 6hly.

**STOP phototherapy:**

If TSB > 50  $\mu\text{mol/L}$  below the line. Recheck TSB in 12 - 24hr.



Start intensive phototherapy when the TSB is  $\geq$  the line according to gestation or weight.

## EXCHANGE TRANSFUSION

South African Neonatal Academic Hospital Guidelines: 2006

In presence of sepsis, haemolysis, acidosis, or asphyxia,

use one line lower (gestation below) until <1000g

If gestational age is accurate, rather use gestational age (weeks) than body weight

- Note: 1. Infants who present with TSB above threshold should have Exchange done if the TSB is not expected to be below the threshold after 6 hrs of intensive phototherapy.  
 2. Immediate Exchange is recommended if signs of bilirubin encephalopathy and usually also if TSB is >85  $\mu\text{mol/L}$  above threshold at presentation  
 3. Exchange if TSB continues to rise >17  $\mu\text{mol/L/hour}$  with intensive phototherapy

