

Jaundice

What is Jaundice?

- Jaundice is the yellow colour often seen in the skin of newborn babies in the first few days after birth
- The yellow colour comes from a chemical called bilirubin which is made when red blood cells are broken down by the body
- The liver usually gets rid of bilirubin and it comes out in the stool

Why do babies become jaundiced?

- After birth, newborn babies breakdown red blood cells and make bilirubin
- The liver cannot handle this bilirubin fast enough and instead of it being passed in the stools, some ends up in the skin
- Premature babies are more likely to get jaundiced but healthy term babies often get jaundiced too.

Is bilirubin harmful?

- Not in small amounts
- High levels of jaundice can be harmful and will need treatment
- In extreme cases, this can cause brain damage to the baby.

How is the level of bilirubin checked?

- A blood test is the only way to accurately check the bilirubin level.
- We may double check that a blood test is needed by making a measurement with a bilirubinometer, which is a machine placed on your baby's forehead. It is similar to using a baby head thermometer this does not hurt your baby and will be used by trained staff on the ward.
- The blood sample will be sent away to the laboratory and results will be available within a few hours,
- Results will then be discussed with paediatrician and parents to form a plan of care and treatment for baby. This will include when the next blood test will need to be taken.

How is jaundice treated?

- A paediatrician will refer to a serum bilirubin chart, this assists in deciding the most appropriate treatment for jaundice. The chart is available to look at.

- There are 5 zones for treatment of a healthy baby born at close to the due date. Babies who are premature or small are more likely to need photo therapy treatment earlier.
- **Zone 5** is simply to observe the jaundice levels and baby will remain with mum
- **Zone 4** is to investigate which means the baby will need to have bloods repeated the next day and baby would remain with mum.
- **Zone 3** is photo therapy this is a special light used to breakdown the bilirubin in the skin. The baby will remain with mum.
- **Zone 2** Photo therapy and admission to Neonatal Unit. If levels of bilirubin are very high the baby may need close observation by neonatal staff.
- **Zone 1** Exchange transfusion [this is a very rare complication of jaundice] Baby will be admitted to neonatal unit where they will need to have their blood replaced, as bilirubin levels have become too high and without removing the bilirubin completely, may cause permanent damage.

Phototherapy

What is phototherapy?

- Phototherapy is a special light used to breakdown the bilirubin in the skin
- Light from phototherapy unit converts bilirubin in to a harmless substance passed in stools and urine.

What are the benefits of phototherapy?

- The jaundice can be treated, preventing the need for more invasive treatment and the serious complications, which can occur if excessive levels of bilirubin develop.

What happens when my baby is having phototherapy?

- Your baby will need to be in an incubator whilst under photo therapy to keep warm,
- The photo therapy unit will be placed over the top of the incubator occasionally more than one unit may be used. This can be switched off when your baby needs to come out to be fed
- Whilst in the incubator your baby will only be wearing a nappy and special eye shields
- This is to ensure that the majority of your baby's skin is exposed to the phototherapy lights.
- The eye shields are a precaution to protect your baby's eyes from the bright light.
- Your baby should spend as much time as possible under the phototherapy lights for it to be most effective, but your baby can come out for feeding or cuddles if he or she is upset.

- Your baby will need to have regular (usually daily) blood tests whilst under photo therapy to assess the levels of bilirubin and ensure the phototherapy is effective.
- **Photo therapy is the best treatment for jaundice**

How long will my baby need to be treated?

- Most babies will need to be treated for a few days
- The exact time will vary from baby to baby
- During this time the level of jaundice will be checked daily with a blood test.
- When phototherapy is stopped your baby will still need to remain in hospital for further blood tests to make sure that the jaundice levels do not increase.
- Occasionally babies may have jaundice that persists for several weeks, these babies will need extra blood tests taken to investigate the cause. The majority of babies will be allowed home and are able to have blood tests repeated in the community/hospital

Are there any risks involved in using phototherapy?

- No, millions of babies have been treated with phototherapy and it is known that it does not have any important side effects.

Are there any alternative treatments?

- Phototherapy is the only effective treatment of significantly high levels of bilirubin that we can use. Failure to treat may cause the need for more invasive treatment such as a blood exchange transfusion.
- There are some drugs that have been used to treat jaundice in babies, but they are experimental and we do not know whether they have any side effects

Do I need to change the way I feed my baby?

- Jaundiced babies can continue to be fed by breast or bottle
- Midwives and appropriately trained staff are available on the wards for any feeding advice.
- You may find that your baby is more sleepy than usual and may need to be woken for regular feeds.

What happens if your baby becomes jaundiced at home?

- The community midwife will visit you at home, one of the checks that she will do is to see if your baby has become jaundiced

- If the community midwife feels that your baby will need to have jaundice levels checked, she would arrange an appointment for you to have a bilicheck and or blood test performed. **[Please see: how is the level of bilirubin checked]**
- These tests would usually take place at your nearest local hospital
- At Liverpool Women's Hospital testing can be arranged on Jeffcoate Ward. You will be advised to return home after the test has been completed.
- Once results are available the hospital will contact you with a plan of care dependant on which zone your babies bilirubin levels fall in to.
- If your baby requires treatment he/she will need to be admitted to the nearest children's hospital.
- **Babies cannot be readmitted to Liverpool Women's Hospital**

This information is not intended to replace discussion with either medical or midwifery staff. If you have any questions regarding the contents of this leaflet please discuss this with a midwife or paediatrician.

For further information go to the Liverpool Women's Hospital website, www.lwh.org.uk

If you require any advice about the information on the websites please speak to a midwife or medical staff.

Ref: Mat 03/05

Review date January 2007