Jaundice in newborn babies

Information for the public
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About this information

NICE guidelines provide advice on the care and support that should be offered to people who use health and care services.

This information explains the advice about jaundice in newborn babies that is set out in NICE guideline CG98.

The information about tests to recognise jaundice in newborn babies, when to start treatment and using phototherapy treatment was updated in 2016. This information can be found in the sections on testing for jaundice and treating jaundice.

Does this information apply to me?

Yes, if you are a parent or carer of a newborn baby (including babies born prematurely) with jaundice, from birth to 28 days.

No, if you are the parent or carer of a baby:

- with jaundice that lasts longer than the first 28 days after birth
- who needs surgery to treat the cause of their jaundice
- with a type of jaundice caused by an increased level of a special form of bilirubin known as 'conjugated bilirubin'.

Jaundice in newborn babies

Jaundice is the name given to yellowing of the skin and the whites of the eyes. Jaundice in newborn babies is very common, is usually harmless and usually clears up on its own after 10–14 days.

Newborn babies produce large quantities of the pigment bilirubin. This is the substance that gives the yellow colour to the skin and whites of the eyes. Bilirubin is a product of the breakdown of red blood cells. It is normally processed by the liver and passed out of the body through the bowels in stools (faeces). The skin and eyes turn yellow in jaundice because there is an increased amount of bilirubin in the body.

Most babies who develop jaundice do not need treatment or extra monitoring. However, a few babies will develop very high levels of bilirubin, which can be harmful if not treated. In rare cases, it can cause brain damage.

The aim of this guideline is to help prevent or detect very high levels of bilirubin. It is also to help identify those babies who have jaundice because of liver disease.

If you think your baby is jaundiced the doctor or midwife will be able to help you judge whether or not the jaundice needs treating.

Your care team

A range of professionals who specialise in different areas of treatment or support may be involved in your baby's care. These could include midwives, GPs, health visitors and hospital doctors.

Working with you

Your care team should talk with you about jaundice in newborn babies. They should explain any tests, treatments or support you should be offered so that you can decide together what is best for your baby. There is a list of questions you can use to help you talk with your baby's care team.

Information and support

If you have just had a baby, the doctor or midwife should tell you about jaundice, and offer information that is appropriate for you. The information should include:

- the fact that jaundice is common, and usually short-lasting and harmless

- what makes it more likely that a baby might develop significant jaundice
- how to check your baby for jaundice
- what to do if you think your baby might have jaundice
- why it is important to check your baby's nappies for dark urine or pale chalky stools
- why it is important to recognise jaundice in the first 24 hours and, if you think your baby has jaundice during this time, to speak to a member of your healthcare team about it straight away
- reassurance about continuing to breastfeed.

Feeding your baby

If you are breastfeeding your baby, you should be encouraged to breastfeed regularly, and to wake your baby for feeds if necessary. If your baby looks jaundiced you should be offered support to help you breastfeed successfully. There is advice on this in NICE's guideline on postnatal care.

Which babies are more likely to develop jaundice that needs treatment?

The following babies are more likely to develop jaundice that needs treatment:

- babies who were born early (at less than 38 weeks of pregnancy)
- babies who have a brother or sister who had jaundice that needed treatment as a baby
- babies whose mother intends to breastfeed exclusively
- babies who have signs of jaundice in the first 24 hours after birth.

Whether your baby looks jaundiced or not, the doctor or midwife should check whether your baby is at risk of developing high levels of jaundice soon after birth, and if so, the doctor or midwife should give your baby an additional check for jaundice during the first 48 hours.

Testing for jaundice

Your newborn baby should be checked for signs of jaundice at every opportunity, especially in the first 72 hours. This will include looking at your naked baby in bright light (natural light if possible) to see if they appear yellow. You can detect jaundice more easily by pressing lightly on the skin. A yellowing of the whites of the eyes and the gums are helpful indicators of jaundice, particularly in babies with darker skin tones. You or the doctor or midwife can carry out the check.

If it looks like your baby has jaundice, then it is important that the level of bilirubin is measured. The doctor or midwife shouldn't rely on visual inspection alone to estimate the bilirubin level. Measuring the level of bilirubin can be done very simply for most babies, using a special hand-held device placed briefly on the skin (a 'bilirubinometer'). It won't hurt your baby. However, babies whose bilirubinometer reading is high, babies who are less than 24 hours old and some babies born prematurely (who are aged less than 35 weeks of pregnancy) will need a blood test. See below for more information about these tests.

The doctor or midwife will use the results of these tests to decide whether the jaundice needs to be treated, and what kind of treatment would be best. They should use a table or charts for this.

Your baby may have jaundice that lasts longer than your doctor or midwife expects. If so, you and your doctor or midwife should look for pale, chalky stools and/or dark urine and further blood and urine tests will be needed.

Measuring bilirubin levels in babies with jaundice

Babies in the first 24 hours

If your baby looks jaundiced in the first 24 hours after birth, your baby will need a blood test urgently (within 2 hours). This test measures the level of bilirubin in the blood to see if the jaundice needs to be treated. Once the doctor or midwife knows the results of the blood test, more tests may be needed to see if there is an underlying illness causing the jaundice.

Babies older than 24 hours

If your baby looks jaundiced and is older than 24 hours, the doctor or midwife should measure your baby's bilirubin level within 6 hours. This can usually be done using a bilirubinometer. If a bilirubinometer is not available, bilirubin levels can be measured using a blood test.

Treating jaundice

Some treatments may not be suitable for your baby, depending on their exact circumstances. If you have questions about specific treatments and options covered in this information, please talk to a member of your baby's healthcare team.

If your baby needs treatment for jaundice, this will be done in hospital. Your baby will be monitored to see if the treatment is working, and tests for conditions that may have caused the jaundice should be carried out.

Information about treating jaundice

The doctor or midwife should tell you about the treatments for jaundice and give you appropriate information. The information should include:

- the different options available, why they are being considered and how they can help treat jaundice (see below)
- benefits, possible problems and any long-term effects of the treatments
- what the treatment involves
- how long the treatment is likely to last
- what will happen if the treatment does not work
- how you can hold, touch and feed your baby during their treatment.

Phototherapy

If the doctor or midwife decides that treatment is needed because your baby's bilirubin level is higher than expected, your baby should be treated in hospital using phototherapy.

Phototherapy involves placing the baby under a special light (not sunlight). Light of a certain wavelength helps the body to break down the bilirubin and pass it out of the body.

During phototherapy your baby will be placed on his or her back unless they have other conditions that prevent this. Your baby's eyes should be protected and they should be given routine eye care. Your baby may be placed in a cot or an incubator. Your baby's temperature should be monitored and your baby should be checked to make sure he or she stays hydrated (has enough fluid in their body). This is done by weighing your baby every day and assessing their wet nappies.

The treatment may be stopped from time to time for up to 30 minutes so you can hold, feed and cuddle your baby, and change their nappy. You should be given help with feeding.

Intensified phototherapy

If your baby's bilirubin level is very high or rising quickly, or if your baby's jaundice does not improve after phototherapy, your baby's treatment should be stepped up. The healthcare team should offer 'intensified' phototherapy. This involves increasing the amount of light used in phototherapy. The phototherapy lamp may be turned up or another light source added at the same time to give more light. During intensified phototherapy, it is not usually possible for you to carry on breastfeeding. This is because the treatment should not be stopped for breaks. However, you can express your breast milk, which can then be given to your baby through a feeding tube that passes up your baby's nose and into their stomach. Rarely, fluids may be needed and these are given straight into a vein using a 'drip'. Your baby can be breastfed normally again after intensified phototherapy is stopped, and you should be offered extra help with this.

Checking to see if phototherapy is working

The level of bilirubin in your baby's blood will need to be checked with a blood test every 4–6 hours after starting phototherapy to see if the treatment is working. Once the levels of bilirubin become stable or fall, they will still have to be checked every 6–12 hours. When your baby's jaundice does get better, phototherapy can be stopped but your baby will need another blood test 12–18 hours later to make sure the jaundice has not returned to a level that would need further treatment. Your baby won't necessarily have to stay in hospital for this.

Other treatments for jaundice

If the level of bilirubin in your baby's blood is very high, your baby might need a complete changeover of blood (an exchange transfusion) because this is the quickest way to lower the bilirubin levels. Your baby will need to be admitted to an intensive care bed for this. After the exchange transfusion your baby will need a blood test within 2 hours so that the bilirubin level can be checked to see how well the treatment has worked.

If your baby has haemolytic disease (this is when antibodies in the mother's blood attack the baby's blood cells) and their blood bilirubin level is rising rapidly, the doctor may suggest a treatment called intravenous immunoglobulin (sometimes called IVIG), which is a blood product. Intravenous means it needs to be injected into a vein.

The doctor should not offer any of the following to treat jaundice in your newborn baby: agar, albumin, barbiturates, charcoal, cholestyramine, clofibrate, D-penicillamine, glycerin, manna, metalloporphyrins, riboflavin, traditional Chinese medicine, acupuncture or homeopathy.

Questions to ask about jaundice in newborn babies

These questions may help you discuss your baby's condition or the treatments that have been offered with your healthcare team.

- How can I tell if my baby has jaundice?
- What tests are available to find out if my baby has jaundice?
- How will I know if my baby needs treatment?
- Will my baby's jaundice clear up on its own?
- What sort of support can I get with breastfeeding?
- Why have you decided my baby should have this particular type of treatment?
- What are the pros and cons of having this treatment?
- What will the treatment involve?
- How long will it take to have an effect?
- Are there any risks associated with this treatment? Are there any long-term effects?
- What other treatment options are there?
- What would happen if my baby didn't have the treatment?
- What happens if the treatment doesn't work?
- How long will the treatment last? Will I be able to feed and cuddle my baby during treatment? If not, when will I be able to see and hold my baby again?

Sources of advice and support

- Bliss – the special care baby charity, 0808 801 0322
  www.bliss.org.uk
- The Breastfeeding Network, 0300 100 0212
  www.breastfeedingnetwork.org.uk
- Children's Liver Disease Foundation, 0121 212 3839
  www.childliverdisease.org

- La Leche League, 0845 120 2918
  www.laleche.org.uk
- National Childbirth Trust, 0300 330 0700
  www.nct.org.uk

You can also go to NHS Choices for more information.

NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.

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