

My baby may have an infection – what does that mean? Information Leaflet

This leaflet describes the treatment and tests for suspected or proven infection in a baby within 72 hours of birth. This is called “early onset neonatal infection”. Please ask your midwives, nurses and doctors if you have any questions.

How are infections in babies treated?

The most important treatment for infection in newborn babies is antibiotics. These are given through a drip. Your baby may need more than one drip during the course of antibiotics. As well as treating infection we will do some tests. These tests will help us work out whether or not your baby has an infection, what type of infection is involved and how long we need to continue the antibiotics for.

Other treatments are sometimes needed to help the breathing, heart and other parts of the body.

Your baby may need to be in a special care baby unit (SCBU) or neonatal intensive unit (NICU) at the start of treatment. If a baby is very well s/he may be able to spend some time with you during the course of antibiotics. If the baby is at all unwell then s/he will need to stay in SCBU or the NICU. On rare occasions some babies need more help than usual and need to be transferred to another hospital. Your healthcare team will tell you if this is a possibility.

Risks from early onset neonatal infection

Early onset neonatal infections in babies, whilst uncommon, can be very serious. With prompt and appropriate care, most babies will make a full recovery.

Sadly, a small number of babies with early onset neonatal infection will die – approximately 1% or one in every 100 babies. Approximately 20% or one in every 5 babies who recover from their early onset neonatal infection will have long-term disability and all will require a longer stay in hospital. The risks are higher if treatment is delayed or not started.

Treating your baby means they are more likely recover without any major complications. Starting treatment as soon as possible can also reduce the amount of time spent in hospital.

Antibiotics for early onset neonatal infection

The two main antibiotics used to treat early onset neonatal infection are Benzyl Penicillin and Gentamicin, although sometimes different antibiotics are required. The risks of treatment with antibiotics are very low. Benzyl Penicillin and Gentamicin, which in combination are highly effective at targeting the most common causes of early onset neonatal infection, are two of the antibiotics most commonly given to newborn babies.

Benzyl Penicillin is a very safe drug to use in babies - newborn babies are not allergic to penicillin like some older people are. The risks of Gentamicin are also small, but include hearing problems and kidney problems. We can reduce these risks by doing blood tests on babies to check the level of gentamicin. If your baby is well enough to stay with you during the treatment with antibiotics and does not need admission to SCBU or NICU, then s/he will receive the above two antibiotics for the first 2 days and then these will be changed if necessary based on the results of the tests.

Some people are concerned that giving antibiotics to babies can increase the risks of diseases such as eczema and asthma. However, there is no proof that antibiotics cause these problems.

The risks of infection are much greater than the risks of antibiotics. Experts, including your healthcare team, have looked closely at the evidence which shows that it is better to give a baby with suspected early onset neonatal infection antibiotics and then stop them as soon as it is safe.

What tests are needed?

If the healthcare professionals suspect your baby has an early onset neonatal infection, they will carry out some tests to find out the type and cause of the infection.

Blood cultures are used to detect infection in the bloodstream and establish the type of germ responsible for causing the infection. A small sample of blood is taken from the baby, usually extracted using a needle. The sample is then sent to the laboratory where it can take up to 36 hours for bacteria to grow. A C-Reactive Protein (CRP) test is done at the same time as the blood culture to measure a specific protein in the blood. CRP levels rise in response to inflammation so this can show whether infection is present and how an infection is responding to treatment. Only 0.5mL of blood is taken for these tests – one tenth of a teaspoon. Around 18 – 24 hours after the first tests, we will repeat the CRP.

A lumbar puncture (also called a spinal tap) may also be needed to test for meningitis. Meningitis is a rare but serious infection and results from this test ensure babies can be treated with the right antibiotics, if needed. During a lumbar puncture a small, hollow needle is placed between bones in the baby's back. This allows us to take fluid from around the nerves and the spine. We get the main results within 24 hours. More detailed results can take 3 – 5 days.

Other tests may also be performed, for example a chest X-ray to obtain a picture of your baby's lungs to look for signs of infection.

The results of these tests will be used to determine whether your baby has a definite infection.

When will you get the results of the tests?

By 36 hours, we will have a good idea what is going on. If the blood culture is negative (that means no important bacteria have grown from baby's blood in the lab) and the CRP is normal (that is there is no sign that your baby is fighting infection) and your baby is well, then we may be able to stop the antibiotics.

If your baby turns out to have an infection, we will get more information between 3–5 days after the antibiotics were started. Most babies need antibiotics for 5 – 7 days. Some babies will need more blood tests.

If your baby appears well, shows no sign of infection and the tests are all clear, then antibiotics can be stopped after 36 hours.

Can I hold and cuddle my baby during treatment?

During the treatment, as long as your baby is well enough, you will be encouraged to hold and cuddle your baby. We will tell you if your baby is not well enough to be held or cuddled.

Can I breastfeed during treatment?

Yes, if your baby is well enough to feed. If your baby is not well enough to feed then we will help you to express your breast milk if that is what you want to do. The nurses can help you with this. If you are not breastfeeding your baby, you will be able to feed your baby if s/he is well enough.

When can the baby come home?

Once your baby is well enough and finished the antibiotics, you can discuss going home with the doctors looking after your baby. There may be a number of other factors which influence the time you or your baby can go home.

Your baby's healthcare professionals are able to provide you with further information including what signs to look out for (see below) and who to contact if you are concerned. If you do have concerns once at home then seek medical advice urgently.

Will my baby have problems in the future?

If the antibiotics were stopped after 36 or 48 hours, then your baby did not have an infection after all. We do not expect these babies to have any problems due to early onset neonatal infection as they grow up.

If the antibiotics are carried on for more than 48 hours, it is possible that your baby has an infection. Mild early onset neonatal infections do not cause problems in later life.

A few babies who have a serious infection have problems in later life. A serious infection involves being on a ventilator for more than 24 hours, or needing extra medicine to help the heart beat stronger. Meningitis is a serious infection. If your baby has a serious infection your health care team will discuss any long-term implications with you.

Future pregnancies:

If your baby had a Group B Strep infection, then in all future pregnancies you should be given antibiotics during labour. This is because there is an increased risk of a future baby developing early-onset neonatal infection if a previous child has had a definite GBS infection. You should make sure that you inform your midwife and GP that you have had a previous baby who had Group B Strep infection.

In all other cases future pregnancies should not be affected.

What should I look out for after we go home?

You should look out for:

- Altered behaviour or responsiveness
- Floppiness (altered muscle tone)
- Refusing to feed, vomiting or their tummy looking bloated
- Signs of breathing difficulties
- Being unresponsive
- Excessive crying
- Changes in skin colour
- Abnormal temperature (below 36°C or above 38°C)
- Rapid breathing or pauses in breathing (apnoea)

If you have any concerns about your baby having any of the above symptoms, then seek medical advice (for example, from NHS Direct, your GP, or your local Accident and Emergency Department).

Who can I talk to about my baby's illness?

Please ask the staff any questions. In the hospital you can also talk to the Patient Advisory and Liaison Service (PALS). Outside the hospital you can talk to charities that help parents. These include:

Group B Strep Support – for information for families affected by group B Strep and their health professionals.

P O Box 203, Haywards Heath RH16 1GF. 01444 416176. Email: info@gbss.org.uk Web: www.gbss.org.uk

Bliss – an organisation that supports families that have had a sick or premature baby

9, Holyrood Street, London SE1 2EL. 020 7378 1122. freephone helpline 0500-618140. Email Hello@bliss.org.uk Web: www.bliss.org.uk

This leaflet can be made available in difference formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at pals@lwh.nhs.uk

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