

Neonatology

Early onset neonatal infection

Information for parents and families

Introduction

You have been given this leaflet because your baby has some risk factors for infection or some symptoms that could signal infection. This leaflet will hopefully help you better understand neonatal infection, but also alert parents/carers to the signs and symptoms of sepsis, so they know what to look out for.

What is early onset neonatal infection?

An infection that occurs in the first 72 hours of life is called early onset infection and can be very dangerous and even life threatening for some babies.

What is early onset neonatal sepsis?

Infection can, in some cases, lead to sepsis. This is a life-threatening reaction to an infection. It's an unusual reaction, most babies with an infection do not get sepsis. Sepsis happens when your immune system overreacts to an infection and starts to damage your body's own tissues and organs. Sepsis is sometimes called septicaemia or blood poisoning.

Which babies have a higher risk of getting early onset neonatal sepsis?

Some newborn babies have a higher risk for infection than others due to the presence of certain risk factors. These risk factors include:

- the mother has had a previous baby who had a group B streptococcal (GBS) infection
- GBS was found during the current pregnancy in urine, vaginal or rectal swabs or you have had a GBS infection (including a GBS urine infection) during this pregnancy
- the baby is born prematurely (before 37 weeks) following the spontaneous start of labour
- the mother's waters broke 18 hours or more before birth
- the mother has maternal chorioamnionitis (possible infection in the amniotic fluid))
- the mother has maternal blood infection (septicaemia)
- the mother has a fever (more than 37.5°C on two separate measurements or one measurement of more than 38.0°C up to one hour after birth)
- the baby has/had fetal tachycardia in the womb
- there's a suspected/ confirmed infection in one of the babies in a twin pregnancy

What are the signs and symptoms of a neonatal infection?

Depending on the risks present, your baby will be clinically assessed for signs and symptoms of infection that include:

- breathing difficulties
- floppiness
- feeding difficulties – baby refuses to take milk or vomiting
- signs of poor circulation
- temperature instability – baby is too hot or too cold
- low blood sugar
- jaundice within 24 hours of life
- seizures

What will happen if your baby is at risk or shows signs of an infection?

The results from the clinical examination and the risk assessment will be evaluated. Depending on the outcome, blood tests will be carried out. Your baby will either be started on intravenous antibiotics or monitored for at least 24 hours from birth. If any concerns arise during the observation period, the medical team would carry out tests and start antibiotic treatment.

After antibiotics are started

Most babies that are started on antibiotics can remain with their mother or parent in the postnatal ward. A cannula will be inserted and blood tests will be taken. These include:

- a blood culture test (to check for bacteria in the blood)
- a full blood count (that gives information about the cells in someone's blood)
- a C- reactive protein test (CRP) (this measures inflammation in the body to help us diagnose an infection). CRP will be repeated between 18 to 24 hours after the first blood tests.

About 36 hours after the antibiotics were given, we'll review whether antibiotics need to be continued. If the tests show no signs of infection and your baby remains clinically well, the medical team will stop the antibiotics. Your baby can then be discharged and taken home. If any blood test suggests infection, the antibiotics will be continued for usually a total of five to seven days. The medical team might also recommend a further test called lumbar puncture to rule out meningitis.

What happens if your baby does not receive treatment?

After birth, it is hard to differentiate between babies that have an infection and those that need more time to adapt to life outside the womb. This is why your baby will remain in hospital and be closely monitored. If your baby shows any signs of developing an infection, antibiotics will be started promptly. Early treatment will often mean there are no long-term effects. If a baby has an infection that it is not promptly treated, it could pose a risk to the baby's life or could cause long term complications and would need longer treatment.

What to do once you go home

There is a small chance of your baby developing a late infection up to six weeks after birth, even if they had antibiotics initially. This is especially the case if the mother had group B streptococcal (GBS) infection or colonisation (presence of the bacteria on swab tests) during the pregnancy. If your baby is discharged home, you should be aware of signs that baby becomes clinically unwell like:

- abnormal behaviour (for example, inconsolable crying or listlessness)
- floppiness
- feeding difficulties or vomiting
- high or low temperature
- tachypnoea (rapid breathing)
- changes in the colour of their skin (blue/ mottled)

If you notice any of the above, immediately seek medical advice from your GP, NHS 111 or the Emergency Department.

If your baby required antibiotics after birth, your GP will receive a letter from the medical team explaining the reasons for starting antibiotics and the blood results. Please register your baby with your GP as soon as possible after discharge.

If you have any further questions or concerns, please speak to the staff member in charge of your care.

Useful Links

- Bliss, 0500 618140 www.bliss.org.uk
- Group B Strep Support, 01444 416176 www.gbss.org.uk
- National Institute of Clinical Excellence (NICE), <https://www.nice.org.uk/guidance/cg149/ifp/chapter/Early-onset-bacterial-infection-innewborn-babies>
- NHS Choices Website: <https://www.nhs.uk/>

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3312 7777** (10.00 – 16.00, Monday to Friday). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:
imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information visit our website: www.imperial.nhs.uk

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