Infection Screening for Newborn Babies

Patient Information Leaflet
If you require a translation or an alternative format of this leaflet please speak to the nurse in charge or call the Patient Advice Liaison Service on 01296 316042
Congratulations on the birth of your baby

You have been given this leaflet because there is concern that your baby is at risk of developing an infection or is showing signs that may be caused by an infection. An Infection Screen is the standard set of tests and treatment given when looking for infection.

A member of the Paediatric Team will speak to you but we know that it can be a lot of information to take in. Please take your time to read through this leaflet and do not hesitate to ask if there is anything more you would like to know.

What kind of infection might baby develop?
Bacterial infections are a common cause of illness in newborns, including septicaemia, meningitis and pneumonia. Septicaemia is when there is an infection in the blood stream which can lead to sepsis (a life-threatening condition if not treated). Meningitis is where infection enters the fluid around the brain. Pneumonia is the result of an infection in the lungs. These infections are seen more often in newborn babies because their immune system is not fully developed so they can become very sick and, the long-term outcomes can be worse, if not treated early.

Where does the infection come from?
All babies are born with bacteria on their skin and in their bowels, of which most are harmless and some beneficial. However, certain bacteria are known to be more often associated with illness in newborns, such as Group B Streptococcus (GBS). They can get this whilst in the womb, during birth or after birth.
Why does your baby need an Infection Screen?

We have indicated the reason(s) for your baby below:

Risk factors:

◊ Fever in mother during/after labour
◊ Prolonged rupture of membranes (more than 24 hours) before birth
◊ Group B Streptococcus (GBS) infection or carriage in mother
◊ Previous baby with newborn illness caused by GBS
◊ Premature birth (before 37 weeks gestation)

Signs and Symptoms in baby:

◊ Abnormal breathing/heart rate/temperature/behavior
◊ Abnormal behaviour/seizures
◊ Abnormal blood sugar levels or poor feeding
◊ Jaundice in the first 24 hours after birth

Other reasons are given here:
What does an Infection Screen involve?

All babies will have the following:

**Regular observations** including heart rate, breathing rate and temperature at least every 4 hours.

**Insertion of a cannula** which is a small plastic tube that is inserted into a vein in baby’s hand/foot and left in place to give antibiotics.

**Blood tests** are taken:
1. At the start from the cannula as it is put in, which is sent to check: full blood count (number of white cells produced to fight infection); C Reactive Protein (CRP which can be raised if an infection is present); and a blood culture (to check if any bacteria can be grown from the blood).
2. Then after 18-24 hours - a repeat CRP
3. Then after 36 hours - the level of the antibiotic Gentamicin is checked.
4. Also if additional blood tests are needed.

Some babies may also need to have the following:

**Chest X-ray** to see if there are any areas of the lung that look abnormal in babies with breathing problems.

**Lumbar Puncture** which involves taking a small sample of the cerebrospinal fluid (CSF) which surrounds the brain and spinal cord to look for meningitis. This is done by inserting a thin needle into the baby’s lower back which is a similar procedure to having an epidural in labour. It is done in sterile conditions and baby may be given some sucrose (sugar) solution which provides some pain relief if they show signs of being upset. It is not always possible to collect a sample or sometimes the sample contains some blood, but two attempts to collect a CSF sample may be made on separate occasions but, if this is not successful, then a longer course of antibiotics will be given. The sample collected is sent for several tests to look for infection fighting cells (white blood cells) or the presence of bacteria and viruses. These results should be available within a couple of hours.
Why are intravenous antibiotics being given?
Intravenous antibiotics are started immediately and given for approximately two days until the results of the blood tests are received. Most babies are started on Penicillin and Gentamicin, these will be stopped if all the tests are negative; continued for a longer course (which in certain situations may be for as long as two weeks) or changed to alternative antibiotics if indicated by the test results.

Newborn babies do not absorb antibiotics given by mouth very well and some antibiotics are not available as oral solutions and antibiotics given into the vein work more quickly and effectively.
Even if your baby seems well, antibiotics will be given while the tests are being processed because we do not want baby to become unwell while waiting for the results.

Where will baby be looked after?
Well babies are usually brought to the treatment rooms on the post-natal ward or near the neonatal unit to have the cannula inserted and the tests done. Unless there are concerns about baby’s condition, they can stay with you on the post-natal ward. You can care for baby as normal, but extra care just needs to be taken to avoid dislodging the cannula when handling or changing baby.
Further blood tests can also be done in the treatment rooms. The antibiotics will be given to baby on the postnatal ward by the Midwifery Team.

Unwell babies will be admitted to the Neonatal Unit to be monitored more closely and to help with problems such as feeding or breathing.
**When can baby go home?**

Your baby will be discharged when the results have all come back as normal; your baby has completed the antibiotic course and is well.

Once discharged, your baby can be treated as any other baby, however he/she is still very young and vulnerable to infections.

**Signs of infection**

If you are concerned about your baby, please contact your Midwife, Health Visitor, GP or call 111

**If baby seems very unwell - you must call 999**

Signs of infection can be hard to spot but include:

- Changes in behaviour such as inconsolable crying or unusually sleepy
- Develops difficulties feeding or tolerating feeds
- Repeated vomiting
- Has dry nappies
- Has an abnormal temperature (lower than 36°C or higher than 38°C) not explained by environmental factors, such as being a hot day
- Abnormal or fast breathing
- Change in skin colour - yellow (jaundiced), pale, has a rash (non-blanching with glass test)
- Bulging or sunken fontanelle (soft spot on top of head)
What do I need to do when baby goes home?
Register your baby with your GP surgery as we will send a letter to your GP with information about what tests and treatments your baby has received.
Book baby’s 6-week check with your GP.

How do I get more information?
Patient Advice and Liaison Service based at the hospital
01296 316042
BLISS (www.bliss.org.uk)
Group B Strep Support (www.gbss.org.uk)
NICE Guideline QS75 (www.nice.org.uk/guidance/qs75/ifp/chapter/About-this-information)

We continually strive to improve the quality of information given to patients.
If you have any comments or suggestions regarding this information booklet, please contact:

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How can I help to reduce healthcare associated infections?
Infection control is important to the well-being of our patients and for that reason we have infection control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you, and anyone visiting you, use the hand sanitiser available at the entrance to every ward before coming into and after leaving the ward. In some situations hands may need to be washed at the sink using soap and water rather than using the hand sanitiser.

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