Necrotising enterocolitis

Neonatal surgery

Patient information

What is necrotising enterocolitis?
Necrotising enterocolitis (NEC) is a serious, sometimes life-threatening illness in which tissues in the intestine (gut) become inflamed and start to die. This can lead to a perforation (hole) developing which allows the contents of the intestine to leak into the abdomen (tummy). This can cause a very dangerous infection.

NEC is the most common surgical emergency in newborn babies and tends to affect more babies born prematurely than those born full-term.

NEC can be difficult to diagnose but the symptoms are:
- a swollen, tender tummy
- bile (green) vomiting
- blood in the stool

Why does necrotising enterocolitis occur?
Premature and other sick newborn babies have immature and fragile bowels. Why a certain baby develops NEC is often impossible to determine but we(15,8),(987,976) believe the interaction of many different factors may be involved.

How is it treated?
In most cases, NEC can be treated without surgery. If your baby has or is suspected of having NEC:
- an x-ray of your baby’s tummy is taken
- milk feeds are stopped to allow the intestine to rest
- feeding is through a drip (usually a long-line is inserted into one of your baby’s vein) to keep your baby nourished
- antibiotics are started to treat any infections
• a naso-gastric (NG) tube is passed through his or her nose to drain off the contents of his or her stomach

However, your baby will need an operation if they develop a perforation, if they do not respond to the treatment above, or their intestine becomes narrowed with scar tissue (strictures). The operation is carried out under a general anaesthetic and the surgeon will aim to remove the part of the bowel that has died. Usually a stoma (bowel opening onto the surface of the baby’s tummy) is created to rest the bowel and in this case will be rejoined in a later operation. Sometimes, if only a small part of the bowel is affected it can be removed and the bowel rejoined at the same time.

What happens after the operation?

Your baby will:

• need help with breathing (on a ventilator)

• need drugs for pain relief

• may need a blood transfusion and other blood products

• be fed by their long line with PN because they cannot have milk until the intestines have recovered - usually about 10 days after surgery

• continue antibiotics

Caring for your baby’s stoma

The stoma nurse will visit once the stoma begins to work and chose the right size stoma bag. The stoma nurse and the neonatal nurses will teach you how to look after the stoma.

Occasionally babies go home with stomas while they are waiting to grow and before their intestine is rejoined.

Restarting milk feeds

Because your baby is small and has suffered a problem with their bowel we would recommend using breast milk. Milk feeds are introduced slowly. The nursing staff can help you with expressing and storing your breast milk. If you have no breast milk available, we have donor-expressed breast milk (see leaflet). The nurse looking after your baby will talk to you about this option. Sometimes it may be necessary to use specially prepared formula milk.

Are there any long-term problems?

Most babies will recover from NEC but sometimes there may be additional problems if there has been a perforation or a lot of bowel affected.

• the wound can become infected or break down

• the long-line site can become infected

• NEC can recur
• scar tissue (adhesions) may develop inside your baby’s tummy where the surgery took place and a further operation be required
• if a lot of bowel had to be removed, this may cause problems with milk tolerance and require longer term PN

If St George’s Hospital is not your local hospital

Once your baby has had surgery and made a good recovery, i.e. when their specialist medical and nursing requirements are less, the baby will be transferred back to the care of your local hospital. This transfer is a sign of progress and will not occur until the baby is ready. It will allow you to be closer to home and become familiar with your local healthcare professionals.