

What is Necrotizing Enterocolitis (NEC) of the Neonate?

PATIENT/FAMILY INFORMATION SHEET

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Necrotizing enterocolitis (NEC) is an inflammatory process of the small and large intestine. NEC is the most common gastrointestinal emergency that affects babies who had complications during pregnancy and delivery. NEC may involve just the inner lining of the intestine causing erosion or it may involve the entire wall of the intestine causing a hole. The amount of intestine involved may be very small to a large area in size.

NEC typically occurs within the first 2 weeks of life, usually after feedings have begun. The neonatologist may encourage you to feed your baby breast milk because it is more easily digested and less irritating to your baby.

Why is NEC a concern?

This erosion or hole allows the bacteria normally present in the intestinal tract to leak into the abdomen and cause infection. Complications from NEC may include the following:

- Perforation (hole) in the intestine
- Scarring or stricture (narrowing) of the intestine
- Problems with food being absorbed by the intestine
- Severe infection

Who is affected by NEC?

Babies most at risk for developing NEC include:

- Premature babies because they have immature body systems. As a result they may have difficulty with blood and oxygen circulation, digestion, and fighting infection.
- Babies who have had a difficult delivery or lowered oxygen levels. This can result in decreased amounts of oxygen delivered to the intestines.
- Babies with gastrointestinal infection/inflammation

What are the symptoms of NEC?

A baby with NEC may present with some or all of the following symptoms:

- General signs of being "sick" which may include decreased activity, apnea (pause in breathing for more than 20 seconds), difficulty in keeping the body temperature normal
- Distended abdomen
- Feeding intolerance (left over milk in the stomach from an earlier feeding)

- Blood in bowel movement (may or may not be visible)
- Redness or abnormal color to the belly

How is NEC diagnosed?

The doctor diagnoses NEC by:

- Baby's medical history and symptoms
- Physical exam
- Testing baby's bowel movements for blood
- Abdominal x-ray to check for air in the intestine or abdomen
- Blood work

What is the treatment for NEC?

The majority of infants with NEC are treated medically and the symptoms resolve without the need for surgery. The treatment includes:

- Stopping feeding for 7- 14 days
- Nasogastric drainage (passing a small tube through the nose and into the stomach to keep it empty)
- Regular measurements of the abdominal size (girth) with a tape measure to check for increased or decreased distention
- Intravenous fluids for nutrient and fluid replacement
- Antibiotics for infection
- Frequent x-rays of the abdomen
- Provision of extra oxygen or mechanical ventilation if the abdomen is distended and it interferes with breathing
- Isolation procedures (such as protective gown and gloves) to keep the infection from spreading.

Surgery may be necessary in severe cases to remove the damaged part of the intestine. In some cases, a temporary colostomy or ileostomy may be necessary to allow the intestine to rest. This is a small opening in the abdominal wall (called a stoma) through which the end of the intestine will drain. This allows the bowel contents to empty into a sealed pouch system adhered to the abdomen. Follow up surgery is then scheduled to reattach the ends of the intestine and close the stoma/ostomy.

Sources: • www.neonatology.org • www.marchofdimes.org • www.kidshealth.org

For more Patient Fact Sheets, see the Greenwich Hospital web site at www.greenhosp.org and Click on Patients & Visitors, then Patient Education