evident. Gram-negative organisms are often cultured from blood, although bacteremia or septicemia may not be prominent early in the course of the disease.

## Therapeutic Management

Treatment of infants with NEC begins with prevention. Oral feedings may be withheld for at least 24 to 48 hours from infants who are believed to have experienced birth asphyxia. Breast milk is the preferred enteral nutrient because it confers some passive immunity (IgA), macrophages, and lysozymes.

**Minimal enteral feedings** (trophic feeding, gastrointestinal priming) have gained acceptance with no evidence of increased incidence of NEC. In particular, the use of fresh human milk has been shown to decrease the risk of NEC (Corpeleijn, Kouwenhoven, Paap, et al, 2012). A systematic review of the role of probiotics such as *Lactobacillus acidophilus* and *Bifidobacterium infantis* administered with enteral feedings for the prevention of NEC has demonstrated a reduced incidence of severe NEC and mortality in preterm infants (Alfaleh, Anabrees, Bassler, et al, 2011). The preferred type and optimal dosing of probiotics remain to be determined.

Medical treatment of infants with confirmed NEC consists of discontinuation of all oral feedings; institution of abdominal decompression via nasogastric suction; administration of IV antibiotics; and correction of extravascular volume depletion, electrolyte abnormalities, acid–base imbalances, and hypoxia. Replacing oral feedings with parenteral fluids decreases the need for oxygen and circulation to the bowel. Serial abdominal radiographs (every 6 to 8 hours in the acute phase) are taken to monitor for possible progression of the disease to intestinal perforation.

## Prognosis

With early recognition and treatment, medical management is increasingly successful. If there is progressive deterioration under medical management or evidence of perforation, surgical resection and anastomosis are performed. Extensive involvement may necessitate surgical intervention and establishment of an ileostomy, jejunostomy, or colostomy. Sequelae in surviving infants include short-bowel syndrome (see Chapter 24), colonic stricture with