Clinical signs of the aspiration of oral secretions may not be distinguishable from those of other forms of acute bacterial pneumonia. For example, if vegetable matter has been aspirated, manifestations may not appear for several weeks after the event. Classic symptoms include an increasing cough or fever with foul-smelling sputum, deteriorating oxygenation, evidence of infiltrates on chest radiographs, and other signs of lower airway involvement. These deviations may persist for weeks, however, while the child starts to feel better. Rarely, aspiration causes immediate death from asphyxia; more often, the irritated mucous membrane becomes a site for secondary bacterial infection. In addition to fluids, food, vomitus, and nasopharyngeal secretions, other substances that may cause pneumonia are hydrocarbons, lipids, powder, and contrast dye or barium. The severity of the lung injury depends on the pH of the aspirated material.

Nursing Care Management

Care of the child with aspiration pneumonia is the same as that described for the child with pneumonia from other causes. However, the major focus of nursing care is on prevention of aspiration. Proper feeding techniques should be carried out, and preventive measures should be used to prevent aspiration of any material that might enter the nasopharynx. The presence of an NG feeding tube or a history of gastroesophageal reflux disease places the child at risk of aspiration. Other risk factors include decreased gastrointestinal motility, ineffective cough, poor gag reflex, impaired swallow, high gastric residual, and trauma or surgery to the neck, face, or mouth.

Children who are at risk for swallowing difficulties as a result of illness, physical debilitation, anesthesia, or sedation are kept NPO (nothing by mouth) until they can properly swallow fluids effectively. A formal evaluation by an occupational therapist of a child's ability to swallow is recommended with patients who are at risk of aspiration. The child may receive nutrition by alternate means, such as an enteral feeding tube. NG tubes should be checked for correct placement before the initiation of enteral feedings, flushes, or medication administration. The child who is at risk for vomiting and incapable of protecting the airway should be positioned in a side-lying recovery position (see Fig. 21-20).