infection. The probable cause of meningitis is wound contamination. The risk of respiratory tract infections is high because of the imposed immobility, danger of aspiration, and possible depression from the brainstem. The usual precautions of deep breathing and turning as allowed are instituted. Regular pulmonary assessments are performed to identify adventitious sounds or any areas of diminished or absent breath sounds.

As soon as possible, the nurse should begin testing reflexes, hand grip, and functioning of the cranial nerves. Muscle strength is usually less after surgery because of general weakness but should improve daily. Ataxia may be significantly worse with cerebellar intervention, but it slowly improves. Edema near the cranial nerves may depress important functions, such as the gag, blink, or swallowing reflex.

Neurologic checks are an essential aspect of care and include pupillary reaction to light, level of consciousness, sleep patterns, and response to stimuli. Although children may be comatose for a few days, once they regain consciousness, there should be a steady increase in alertness. Regression to a lethargic, irritable state indicates increasing pressure, possibly caused by meningitis, hemorrhage, or edema.

Once the younger child is alert, the arms may need to be restrained to preserve the dressing. Even a child who has been cooperative before surgery must be closely supervised during the initial stages of regaining consciousness, which is when disorientation and restlessness are common. Elbow restraints are satisfactory to prevent the hands from reaching the head, although additional restraint may be necessary to preserve an infusion line and maintain a specific position.

Positioning

Correct positioning after surgery is critical to prevent pressure against the operative site, reduce ICP, and avoid the danger of aspiration. If a large tumor was removed, the child is not placed on the operative side, because the brain may suddenly shift to that cavity, causing trauma to the blood vessels, linings, and the brain itself. The nurse confers with the surgeon to be certain of the correct position, including the degree of neck flexion. The first 24 to 48 hours after brain surgery are critical. If positioning is restricted,