

may be present in NHL, although rarely does a single symptom give rise to the diagnosis. Rather, metastasis to the bone marrow or CNS may produce signs and symptoms typical of leukemia. Lymphoid tumors compressing various organs may cause intestinal or airway obstruction, cranial nerve palsies, or spinal paralysis.

Diagnostic Evaluation

Because most children with NHL have widespread disease at diagnosis, thorough pathologic staging is unnecessary. Current recommendations for staging include a surgical biopsy for histopathologic confirmation of disease with immunophenotyping and cytogenetic evaluation; bone marrow aspiration; radiologic studies, especially CT scans of the lungs and gastrointestinal organs; and LP.

Therapeutic Management

The present treatment protocols for NHL include an aggressive approach using irradiation and chemotherapy. Similar to leukemic therapy, the protocols include induction, consolidation, and maintenance phases, some with intrathecal chemotherapy. Children with nonlymphoblastic lymphoma are treated with cyclic drug combinations and combination intrathecal chemotherapy. These multiagent regimens are administered for 6 to 24 months.

Nursing Care Management

Nursing care of the child with NHL is similar to the care discussed in the [Nursing Care Management](#) section. Because of the intensive chemotherapy protocol, nursing care is primarily directed toward managing the side effects of these agents.

Nervous System Tumors

Brain Tumors

Tumors of the CNS are the most common solid tumor in children and account for about 25% of all childhood cancers, with an annual incidence of 5 per 100,000 children younger than 20 years old ([Crawford, 2013](#)). About 60% of the tumors are infratentorial (below the tentorium cerebelli), which means they occur in the posterior