Intensification, or consolidation, therapy is used to further decrease the number of leukemic cells in the child's body. The intensification phase consists of pulses of chemotherapy medications given periodically during the first 6 months of treatment. The specific agents used for intensification therapy depend on the type of leukemia and the child's risk factors.

Maintenance

The goal of maintenance therapy is to preserve remission and further reduce the number of leukemic cells. Combined drug regimens have been more successful in maintaining remissions and preventing drug resistance.

During maintenance therapy, weekly or monthly complete blood counts are taken to evaluate the marrow's response to the drugs. If myelosuppression becomes severe (usually indicated by an ANC less than $1000/mm^3$) or if toxic side effects occur, therapy is temporarily stopped or the dose decreased. Duration of therapy has been based on clinical experience comparing survival rates for various time intervals and is concerned with preventing deleterious effects of excessive treatment. Although the optimum time for discontinuing therapy is not known, current practice is to continue treatment for 2 to 3 years. All children after cessation of therapy require regular medical evaluation for surveillance of relapse and long-term sequelae of treatment.

Central Nervous System Prophylactic Therapy

Children with leukemia are at risk for invasion of the CNS by the leukemic cells. For this reason, many children receive CNS prophylactic therapy. Because of the concern regarding late effects of cranial irradiation and secondary malignancies, this mode of therapy is generally reserved for high-risk patients or those with resistant CNS disease.

Reinduction After Relapse

For many children, additional therapy becomes necessary when a relapse occurs, as evidenced by the presence of leukemic cells within the bone marrow. Although remissions may be achieved after more than one relapse, each relapse indicates an increasingly poor prognosis. However, more long-term second and subsequent