

regress.

Of major concern in long-term survivors is the development of secondary tumors. Children with bilateral disease (hereditary form) are more likely to develop secondary cancers than are children with unilateral disease. Currently providers believe these individuals are predisposed to developing cancer and that radiation increases their risk.

Therapeutic Management

Treatment of retinoblastoma is complex. Enucleation may be used to treat advanced disease with optic nerve invasion in which there is no hope for salvage of vision. Irradiation can be used when there is vitreous seeding. Chemotherapy has been used to decrease the tumor size to allow treatment with local therapies, such as plaque brachytherapy (surgical implantation of an iodine-125 applicator on the sclera until the maximum radiation dose has been delivered to the tumor), photocoagulation (use of a laser beam to destroy retinal blood vessels that supply nutrition to the tumor), and cryotherapy (freezing of the tumor, which destroys the microcirculation to the tumor and the cells themselves through microcrystal formation). The use of chemotherapy along with radiation or high-dose chemotherapy with autologous stem cell rescue is used to treat metastatic disease ([Hurwitz, Shields, Shields, et al, 2016](#)).

Nursing Care Management

Prepare the Family for Diagnostic and Therapeutic Procedures and Home Care

Because the tumor is usually diagnosed in infants or very young children, most of the preparation for diagnostic tests and treatment involves parents. Once the disease is staged, the physician confers with the parents regarding treatment. In most cases, enucleation can be avoided. In the event that an enucleation is performed, tell parents about the procedure and the benefits of a prosthesis. Showing parents pictures of another child with an artificial eye may help them adjust to the procedure. Although the loss of vision is distressing, most parents realize that there is no alternative. Emphasizing that the unaffected eye retains normal vision and that