Many oncology practices treat patients with benign and malignant hematologic diagnoses. As a result, oncology nurses often are required to care for these patients. One common procedure nurses perform is therapeutic phlebotomy, where about 500 ml of blood is removed through a large-bore needle over 15–30 minutes. The procedure is ordered as a treatment for hereditary hemochromatosis, polycythemia vera, and secondary polycythemia. Before initiating the procedure, nurses must be aware of a patient’s diagnosis, baseline hemoglobin, hematocrit, ferritin, and therapeutic end points. Reviewing these diagnoses will help nurses understand why phlebotomy is an important part of treatment.

Hereditary hemochromatosis is characterized by the abnormal progressive absorption of dietary iron in the intestines, which is then stored in the liver, heart, and other organs. Inherited as an autosomal recessive disorder, the most common genotype that causes hereditary hemochromatosis is HFE C282Y/C282Y (Adams & Barton, 2010). Signs and symptoms often appear in adults aged 50–69. Complications in the liver include fibrosis, cirrhosis, complete liver failure, or hepatocellular cancer. Damage to other organs from iron overload may result in diabetes mellitus, cardiomyopathy, gonadal dysfunction, arthritis, and dementia. Excess iron storage is thought to be toxic to cells. Increased amounts of free radicals are generated that can damage cellular and subcellular membranes. In this disease, the goal of treatment with phlebotomy is to deplete enough iron to normalize the body’s iron stores and prevent or minimize organ dysfunction (McLaren, 2002).

Diagnosis of hereditary hemochromatosis is based on symptoms and laboratory studies. If the patient is asymptomatic, suspicion of iron overload may first be raised when laboratory tests reveal elevated hemoglobin, hematocrit, and ferritin. Normal ferritin in men is about 18–464 mg/dl; for women it ranges from 12–262 mg/dl. Pa-

Phlebotomy maintenance program can be developed (Adams & Barton, 2010). Provisions are often based on symptoms and laboratory findings. The goal of treatment with phlebotomy is to remove the circulating iron as quickly and safely as possible. Depending on the size and overall condition of the patient, phlebotomy can be performed once or twice weekly. The end-point goal of treatment is a serum ferritin in the range of 50–100 mg/dl. Therefore, the length of treatment depends on the baseline level. To prevent anemia, a hemoglobin and hematocrit usually is drawn before each phlebotomy. Parameters ordered by the provider to hold the treatment will be compared with the most recent hemoglo-

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