PRACTICE ALERT  
Report signs of decreased cardiac output to the physician. Severe anemia can lead to heart failure, necessitating additional treatment.

Self-Care Deficit
Energy expenditures for activities of daily living (ADLs) may cause oxygen demands to exceed supply in the client with severe anemia.

• Assist with ADLs, such as bathing, grooming, and eating, as needed. Assistance decreases energy expenditures and tissue requirements for oxygen, reducing cardiac workload.
• Discuss the importance of rest periods prior to such activities as dressing. Rest reduces oxygen demand and cardiac workload. The person who is able to perform self-care in activities of daily living maintains independence, self-esteem, and morale.

Using NANDA, NIC, and NOC
Chart 32–1 shows links between NANDA nursing diagnoses, NIC (McCloskey & Bulechek, 2000), and NOC (Johnson et al., 2000) for the client with anemia.

Home Care
With the exception of anemia resulting from acute hemorrhage, most clients with anemia are treated in the home and community setting. Include the following topics when preparing the client and family for home care.

• Nutritional strategies to address deficiencies
• Prescribed medications, vitamins, or mineral supplements and their appropriate use, intended effect, possible adverse effects, and interactions with food or other medications
• Energy conservation strategies
• Other recommended treatment measures and follow-up
• If the anemia is genetically transmitted, such as sickle cell anemia, include inheritance patterns of the disorder, symptoms of crisis, and manifestations to report to the physician

Provide referrals for counseling to facilitate decisions about pregnancy as indicated. Also refer for nutritional assistance and teaching, home health care, or assistance with self-care and home maintenance activities as indicated. Older adults with nutritional anemias may benefit from community services such as senior meals or Meals-on-Wheels.

Sheri Matthews is a 76-year-old widow who lives alone. She tells Lisa Apana, RN, the nurse in her care provider’s office, that she liked to cook when her husband was alive, but preparing an entire meal just for herself seems senseless. She relates that her typical day’s menu includes coffee for breakfast, a bologna sandwich and coffee for lunch, and a hot dog or two, a few cookies, and a glass of milk for dinner.

ASSESSMENT
Mrs. Matthews’s nursing history includes a 20 lb (9 kg) weight loss since her husband died 8 months ago. She states that she sometimes has heart palpitations and always feels weak. Physical assessment shows: T 98.8°F (37.1°C), P 110, R 22, BP 90/52. Skin warm, pale, and dry. Diagnostic tests indicate folic acid
### Nursing Care Plan

#### A Client with Folic Acid Deficiency Anemia (continued)

- Discuss the importance of taking the folic acid supplement. Advise to continue taking it even after she begins to feel better.
- Help Mrs. Matthews develop a schedule of activities that provides adequate rest and energy for cooking.

#### EXPECTED OUTCOMES

The expected outcomes specify that Mrs. Matthews will:
- Verbalize the importance of taking folic acid supplements and eating a balanced diet.
- Gain at least 1 lb (0.45 kg) per week.
- Return to previous level of physical energy.
- Consume a balanced diet, including foods containing folic acid.

#### PLANNING AND IMPLEMENTATION

Ms. Apana plans and implements the following interventions for Mrs. Matthews.
- Discuss foods required for a well-balanced diet, as well as dietary sources of folic acid.
- Develop a dietary plan with Mrs. Matthews which includes food preferences and foods that are easy and quick to prepare.
- Help Mrs. Matthews develop a schedule of activities that provides adequate rest and energy for cooking.

#### THE CLIENT WITH POLYCYTHEMIA

**Polycythemia**, or *erythrocytosis*, is an excess of red blood cells characterized by a hematocrit higher than 55%. The two major types of polycythemia are primary and secondary. *Primary polycythemia*, also called *polycythemia vera*, is an uncommon disorder of increased RBC production. This condition more commonly affects men of European Jewish ancestry between age 40 and 70. *Secondary polycythemia* occurs in response to elevated erythropoietin levels. This commonly is a compensatory response to hypoxia, often due to living at a high altitude, smoking, or chronic lung disease. A third type of polycythemia, *relative polycythemia*, is not due to an excess of RBCs but to fluid deficit. The total red blood cell count is normal, but fluid loss increases cell concentration, thus raising the hematocrit. Relative polycythemia is corrected by rehydration.

#### PATHOPHYSIOLOGY AND MANIFESTATIONS

##### Primary Polycythemia

Primary polycythemia, or polycythemia vera (PV), is a neoplastic stem cell disorder characterized by overproduction of RBCs and, to a lesser extent, white blood cells and platelets. It is classified as a myeloproliferative disorder. Its cause is unknown. In PV, colonies of endogenous erythroid stem cells develop. These colonies produce RBCs in the absence of erythropoietin, leading to excess RBC production.

Initially, PV is asymptomatic, and the diagnosis may be made during routine blood tests. Its manifestations are caused by increased blood volume and viscosity. Hypertension is common, and may lead to complaints of headaches, dizziness, and vision and hearing disruptions. Venous stasis causes *plethora*, a ruddy, red color of the face, hands, feet, and mucous membranes. This often is accompanied by severe, painful itching of the fingers and toes. Retinal and cerebral vessels may be engorged. Hypermetabolism develops, causing weight loss and night sweats. Mental status may be altered, leading to drowsiness or delirium.

Thrombosis and hemorrhage are potential complications of PV. Thrombosis may cause transient ischemic attacks, angina, or manifestations of peripheral vascular disease. Gastrointestinal bleeding may occur, and portal hypertension may develop.

##### Secondary Polycythemia

Secondary polycythemia, or *erythrocytosis*, is increased numbers of RBCs in response to excess erythropoietin secretion or...