

TABLE 2. Post-Transplantation Symptoms, Clinical Findings, and Management Strategies

Symptom	Clinical Findings and Risk Factors	Management Strategies
Anorexia	Weight loss, taste changes, change in performance status, fatigue, nausea and vomiting, and diarrhea	Review medications for possible source. Medical nutritional therapies: oral nutritional supplements, IV hydration Small frequent meals, calorie counts, weekly weight, nutritional consult Reinforce improvement with time. Adjust medications as needed. Treat underlying cause (e.g., medication for nausea and vomiting).
Anxiety and depression	Fatigue, exhaustion, difficulty sleeping, difficulty concentrating, restlessness, irritability and impatience, recurrent thoughts of diagnosis and treatment, and anorexia	Listen to and validate concerns. Referral to social services, psychiatry, and support groups Pharmacologic: anti-anxiety medication, antidepressants Complementary and alternative medicine therapy: relaxation therapy, mild exercise such as walking
Diarrhea	Increased frequency of bowel movements, abdominal cramps, dehydration, and decrease in weight	Review medications for possible source (i.e., antibiotics, narcotic withdrawal). Electrolyte evaluation Stool sample for enteric pathogens (i.e. <i>Clostridium difficile</i>) Anti-diarrheal medication Appropriate fluid and electrolyte replacement Adjust diet for food sensitivities: milk products, certain spicy foods, nutritional supplements, fatty foods, chocolate Antibiotics as needed; adjust medications as needed
Fatigue	Decrease in energy, inability to complete tasks, insomnia or hypersomnia, not feeling rested after sleeping at night, and generalized weakness	Review medications that may cause fatigue. Assess for anemia. Mild exercise such as walking Potentially decrease or discontinue medications that cause fatigue. Counsel patient on sleep hygiene, such as minimizing napping or staying in bed throughout the day. Erythropoietin medication if indicated and after obtaining written consent Red blood cell transfusion, if needed
Fever	Diarrhea, muscle weakness, fatigue, confusion, and seizures	Panculture, chest x-ray, and CBC with differential and platelets Prophylactic antibiotics if neutropenic; therapeutic antibiotics if culture positive Acetaminophen, IV hydration, symptom management Monitor for fever greater than 101.3°F (and lower temperatures if patients are not feeling well), blood pressure declining from baseline and tachycardia
Nausea and vomiting	Anorexia, nausea and vomiting, weight loss, and diminished skin turgor	Quantify episodes of emesis. Assess fluid and electrolyte status. Review medications for antiemetics and medications that may cause nausea and vomiting. Adjust medications if possible and as needed. IV or oral hydration and replace electrolytes as needed
Pain	Assess for new or existing pain symptoms, current pain medication, assess for pain related to infection, and assess for symptoms of depression or anxiety	Appropriate pain medication regimen: long-acting pain medication together with breakthrough pain medication, doses titrated to effectiveness Consider imaging for source of new or worsening pain Consult with appropriate specialty, if indicated
PN	Paresthesias, impaired proprioception, pain, and sensory deficits; patients at increased risk: those with a history of diabetes, alcohol use, vitamin B ₁₂ deficiency, paraneoplastic syndrome, and vascular insufficiency	Baseline assessment of PN, description of PN symptoms, previous chemotherapy, current medications, neurologic examination including sensory and motor use Safety evaluation and nutritional assessment Treatment of neuropathic pain: medications, acupuncture, massage, medications Promote safety with use of assistive devices: cane, orthotics, wheelchair. Physical therapy and activity; massage
Thrombosis (DVT or PE)	Painful, swollen and erythematous extremity (most often lower extremity), shortness of breath, tachycardia, chest pain, and HTN; patients at increased risk: those with obesity, diabetes, cardiovascular disease, HTN, hyperlipidemia, immunomodulatory agents with concurrent high-dose steroids, anthracyclines, ESAs, hospitalizations, and immobility	Prevention: thromboprophylaxis for all patients at risk Full therapeutic anticoagulation for any patients with more than two risk factors If DVT or PE is suspected: Doppler ultrasound of suspected extremity High-resolution chest CT with PE protocol if PE is suspected Medication to treat thrombosis: low molecular weight heparin, warfarin, and alternative anticoagulants Consult with coagulation specialist if appropriate.

CBC—complete blood count; CT—computed tomography; DVT—deep vein thrombosis; ESA—erythropoietin-stimulating agent; HTN—hypertension; PE—pulmonary embolus; PN—peripheral neuropathy

Note. Based on information from Antin & Yolin Raley, 2008; Eaton & Tipton, 2010; Rodriguez, 2010a.