### Myeloma complications at a glance

This chart describes assessment, intervention, and education for patients with multiple myeloma complications.

<table>
<thead>
<tr>
<th>COMPLICATION</th>
<th>ASSESSMENT FINDINGS</th>
<th>NURSING INTERVENTIONS</th>
<th>PATIENT TEACHING</th>
</tr>
</thead>
</table>
| Anemia                           | **Laboratory tests:** Decreased hemoglobin and hematocrit  
**Signs and symptoms:** Shortness of breath, chest pain, palpitations, dizziness, fatigue, cold intolerance | • Consider and discuss with care team the need for packed red blood cell transfusions or erythropoietin.  
• Evaluate patient’s fall risk and implement appropriate prevention strategies. | Instruct patient to:  
• report shortness of breath, chest pain, and dizziness  
• conserve energy  
• ask for assistance with activities of daily living (ADLs) as needed  
• eat a well-balanced diet and drink plenty of water. |
| Neutropenia                       | **Laboratory tests:** Decreased white blood cell and absolute neutrophil counts  
**Signs and symptoms:** Temperature > 100.4°F (38°C), increased heart rate, decreased blood pressure, breakdown in skin or mucosal integrity | • Consider and discuss with care team the need to obtain cultures.  
• Evaluate current antibiotic therapy and discuss whether antimicrobial agents should be changed or added. | Instruct patient to:  
• report fever, chills, or signs and symptoms of infection (such as redness or drainage)  
• wash hands frequently and practice good personal hygiene  
• avoid crowds and people with colds or other infections. |
| Thrombocytopenia                  | **Laboratory tests:** Decreased platelet count  
**Signs and symptoms:** Petechiae, bruising, bleeding or oozing from cuts or mucous membranes | • Consider and discuss with care team the need for platelet transfusions or platelet growth factors.  
• Evaluate patient’s fall risk and implement appropriate prevention strategies. | Instruct patient to:  
• report bruising or bleeding  
• ask for assistance with ADLs as needed  
• use a soft-bristled toothbrush  
• avoid flossing teeth  
• shave with electric razor. |
| Renal impairment                  | **Laboratory tests:** Elevated blood urea nitrogen, creatinine, and calcium levels  
**Signs and symptoms:** Decreased urine output, swelling, shortness of breath | • Compare kidney function to baseline status.  
• Consider and discuss with care team the need for bisphosphonates therapy or dialysis. | Instruct patient to:  
• follow renal diet and fluid restriction, if ordered  
• avoid nonsteroidal anti-inflammatory agents. |
| Peripheral neuropathy             | **Laboratory tests:** Decreased vitamin B12 and folate levels  
**Signs and symptoms:** Numbness, tingling, burning, coldness, or weakness in arms and legs | • Compare neuropathy to baseline assessment findings.  
• Consider and discuss with care team the need to reduce, delay, or discontinue myeloma treatment and to initiate pregabalin or anticonvulsants. | Instruct patient to:  
• check self daily and report cuts and sores on arms or legs  
• wear socks with closed-toe shoes  
• avoid exposure to very cold and very hot temperatures. |
| Deep vein thrombosis              | **Diagnostic tests:** Abnormal ultrasound or venography findings  
**Laboratory tests:** elevated D-dimer level  
**Signs and symptoms:** Extremity swelling, warmth, tenderness, or discoloration; shortness of breath | • Consider and discuss with care team the need for aspirin, warfarin, or low-molecular-weight heparin.  
• Evaluate need for compression devices. | Instruct patient to:  
• ambulate to the extent possible  
• report tender, swollen, or red areas; skin that looks pale or blue or feels cold to the touch; numbness, tingling, or aching of extremities; shortness of breath; or chest pain. |