

## Myeloma complications at a glance

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

COMPLICATION	ASSESSMENT FINDINGS	NURSING INTERVENTIONS	PATIENT TEACHING
<b>Anemia</b>	<b>Laboratory tests:</b> Decreased hemoglobin and hematocrit <b>Signs and symptoms:</b> Shortness of breath, chest pain, palpitations, dizziness, fatigue, cold intolerance	<ul style="list-style-type: none"> <li>Consider and discuss with care team the need for packed red blood cell transfusions or erythropoietin.</li> <li>Evaluate patient's fall risk and implement appropriate prevention strategies.</li> </ul>	Instruct patient to: <ul style="list-style-type: none"> <li>report shortness of breath, chest pain, and dizziness</li> <li>conserve energy</li> <li>ask for assistance with activities of daily living (ADLs) as needed</li> <li>eat a well-balanced diet and drink plenty of water.</li> </ul>
<b>Neutropenia</b>	<b>Laboratory tests:</b> Decreased white blood cell and absolute neutrophil counts <b>Signs and symptoms:</b> Temperature > 100.4° F (38° C), increased heart rate, decreased blood pressure, breakdown in skin or mucosal integrity	<ul style="list-style-type: none"> <li>Consider and discuss with care team the need to obtain cultures.</li> <li>Evaluate current antibiotic therapy and discuss whether antimicrobial agents should be changed or added.</li> </ul>	Instruct patient to: <ul style="list-style-type: none"> <li>report fever, chills, or signs and symptoms of infection (such as redness or drainage)</li> <li>wash hands frequently and practice good personal hygiene</li> <li>avoid crowds and people with colds or other infections.</li> </ul>
<b>Thrombocytopenia</b>	<b>Laboratory tests:</b> Decreased platelet count <b>Signs and symptoms:</b> Petechiae, bruising, bleeding or oozing from cuts or mucous membranes	<ul style="list-style-type: none"> <li>Consider and discuss with care team the need for platelet transfusions or platelet growth factors.</li> <li>Evaluate patient's fall risk and implement appropriate prevention strategies.</li> </ul>	Instruct patient to: <ul style="list-style-type: none"> <li>report bruising or bleeding</li> <li>ask for assistance with ADLs as needed</li> <li>use a soft-bristled toothbrush</li> <li>avoid flossing teeth</li> <li>shave with electric razor.</li> </ul>
<b>Renal impairment</b>	<b>Laboratory tests:</b> Elevated blood urea nitrogen, creatinine, and calcium levels <b>Signs and symptoms:</b> Decreased urine output, swelling, shortness of breath	<ul style="list-style-type: none"> <li>Compare kidney function to baseline status.</li> <li>Consider and discuss with care team the need for bisphosphonates therapy or dialysis.</li> </ul>	Instruct patient to: <ul style="list-style-type: none"> <li>follow renal diet and fluid restriction, if ordered</li> <li>avoid nonsteroidal anti-inflammatory agents.</li> </ul>
<b>Peripheral neuropathy</b>	<b>Laboratory tests:</b> Decreased vitamin B12 and folate levels <b>Signs and symptoms:</b> Numbness, tingling, burning, coldness, or weakness in arms and legs	<ul style="list-style-type: none"> <li>Compare neuropathy to baseline assessment findings.</li> <li>Consider and discuss with care team the need to reduce, delay, or discontinue myeloma treatment and to initiate pregabalin or anticonvulsants.</li> </ul>	Instruct patient to: <ul style="list-style-type: none"> <li>check self daily and report cuts and sores on arms or legs</li> <li>wear socks with closed-toe shoes</li> <li>avoid exposure to very cold and very hot temperatures.</li> </ul>
<b>Deep vein thrombosis</b>	<b>Diagnostic tests:</b> Abnormal ultrasound or venography findings <b>Laboratory tests:</b> elevated D-dimer level <b>Signs and symptoms:</b> Extremity swelling, warmth, tenderness, or discoloration; shortness of breath	<ul style="list-style-type: none"> <li>Consider and discuss with care team the need for aspirin, warfarin, or low-molecular-weight heparin.</li> <li>Evaluate need for compression devices.</li> </ul>	Instruct patient to: <ul style="list-style-type: none"> <li>ambulate to the extent possible</li> <li>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.</li> </ul>