13.3: Applying the Nursing Process

Assessment

Because mobility issues are directly related to musculoskeletal disorders, perform a thorough assessment of the musculoskeletal system and its effect on the patient’s mobility status. Assess muscle strength and coordination, and then assess mobility skills in the following order: mobility in bed, dangling on the bed with supported and unsupported sitting, weight-bearing while transferring from sitting to standing or to a chair, standing and walking with assistance, and walking independently.

Note

Read more details about performing a “Musculoskeletal Assessment” chapter in Open RN Nursing Skills.

Because immobility can negatively affect several body systems, perform a thorough assessment for patients with impaired mobility. Assess the cardiovascular system, including blood pressure, heart sounds, apical and peripheral pulses, and capillary refill time. Assess for the presence of lower extremity edema and for signs of a potential deep vein thrombosis (DVT).

Assess the respiratory system, including respiratory rate, oxygen saturation, lung sounds, chest wall movement and symmetry, and depth and effort of respirations. Assess for potential signs of atelectasis and pneumonia.

Assess the gastrointestinal system by inspecting for distension, auscultating bowel sounds, and palpating the abdomen for tenderness. Ask the patient about the date of their last bowel movement, and monitor stool patterns and stool characteristics. If constipation is suspected, palpate the patient’s left lower quadrant for signs of stool presence. Assess for the presence of urinary tract abnormalities related to immobility, such as suprapubic distention or tenderness that can
result from urinary retention. Monitor 24-hour trend of intake and output, as well as for symptoms of dysuria, urgency, or frequency. Note if urinary incontinence is occurring due to the inability of the patient to reach the restroom in time. 

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Life Span Considerations

At each stage of growth and development, the nurse assesses a patient’s mobility and provides appropriate education. For example, infants move their limbs, hold their head up, roll, sit, crawl, stand, and then eventually walk. Parents are educated about these developmental milestones during well-child visits. When working with school-age children, nurses provide education to prevent injury that can occur with activity, such as using helmets and knee pads to prevent injury while bicycling and skateboarding. As teenagers become adults, the nurse provides education about the effects of alcohol and other drugs on balance and safety while driving. Older adults are at increased risk for immobility. Conditions such as osteoarthritis, orthostatic hypotension, inner ear dysfunction, osteoporosis resulting in hip fractures, stroke, and Parkinson’s disease are among the most common causes of immobility in old age.

Hospitalization poses a risk for altered functional status of older adults due to acute illness, decreased mobility, and the negative effects of bedrest. The American Academy of Nursing issued a recommendation in 2014 stating, “Don’t let older adults lie in bed or only get up to a chair during their hospital stay.” This recommendation highlights the importance of implementing evidence-based measures to promote activity during hospitalization to prevent functional decline in older adults.

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Note

View evidence-based strategies to reduce functional decline in hospitalized older adults provided by The Hartford Institute for Geriatric Nursing.

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Diagnoses

There are several nursing diagnoses related to mobility. Review a nursing care planning source for current NANDA-I approved nursing diagnoses and interventions. A commonly used NANDA-I nursing diagnosis is Impaired Physical Mobility. See Table 13.3 for the definition and selected defining characteristics of this diagnosis.

Table 13.3 NANDA-I Nursing Diagnosis Impaired Physical Mobility

<table>
<thead>
<tr>
<th>NANDA-I Diagnosis</th>
<th>Definition</th>
<th>Selected Defining Characteristics</th>
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<tbody>
<tr>
<td>Impaired Physical Mobility</td>
<td>Limitation in independent, purposeful movement of the body or of one or more extremities</td>
<td>Alteration in gait, Decrease in fine motor skills, Decrease in gross motor skills</td>
</tr>
</tbody>
</table>
Decrease in range of motion
Decrease in reaction time
Difficulty turning
Exertional dyspnea
Postural instability
Uncoordinated or slow movement

A sample nursing diagnosis in PES format is, “Impaired Physical Mobility related to decrease in muscle strength as evidenced by slow movement and alteration in gait.”

Outcome Identification

A sample overall goal for a patient with Impaired Physical Mobility is, “The patient will participate in activities of daily living to the fullest extent possible for their condition.”

A sample SMART outcome is, “The patient will demonstrate appropriate use of adaptive equipment (e.g., a walker) for safe ambulation by the end of the shift.”

Planning Interventions

Nursing interventions promote a patient’s mobility and prevent effects of immobility. To avoid or minimize complications of immobility, mobilize the patient as soon as possible and to the fullest extent possible. Mobilization efforts, ranging from dangling on the edge of the bed, sitting up in a chair, and assisting with early ambulation, depend on the patient’s unique circumstances, such as their medical condition and surgery performed. For example, a patient undergoing a cardiac catheterization may be mobilized within a few hours following the procedure, whereas a patient undergoing total knee arthroplasty may begin mobilizing 24 hours following the surgery.[7] See details about early mobilization protocols earlier in this chapter.

Encourage the patient to perform activities of daily living (ADLs) as independently as possible and participate in prescribed physical therapy. Encourage or perform active or passive range of motion exercises as prescribed by the physical therapist. Be aware that pain and fear of falling can be major deterrents to a patient’s willingness to ambulate or perform physical therapy. Monitor the patient’s level of pain by using a valid pain intensity rating scale. Administer medications if warranted and consider nonpharmacologic measures such as repositioning, splinting, and heat/cold application to reduce musculoskeletal discomfort. Encourage rest between activities. Educate the patient about appropriately using assistive devices and other fall precautions.[8][9]
For patients at risk for developing pneumonia due to immobility, encourage adequate fluid intake to liquefy pulmonary secretions, and teach deep breathing and coughing exercises to prevent atelectasis. Monitor oxygenation levels and provide supplemental oxygen as prescribed to maintain adequate oxygenation, especially during ambulation. [10]

For bed-bound patients, elevate the head of the bed to 30 to 45 degrees, unless medically contraindicated, and turn and reposition the patient every two hours. Perform hourly rounding to check on the patient’s needs and prevent falls. Protect the skin as needed to minimize the potential for breakdown, and advocate for devices to prevent contractures, as needed. [11][12]

### Implementing Interventions

When implementing interventions to promote mobility, in addition to reviewing the current orders regarding assistance and weight-bearing, assess the patient’s current status. For example, use the Banner Mobility Assessment Tool to determine the patient’s current mobility status and needs for safe patient handling.

Monitor for signs of vertigo and orthostatic hypotension and assist the patient to a sitting or lying position if they occur. Monitor vital signs before, during, and after physical activity and institute appropriate fall prevention strategies as indicated. Orthostatic hypotension is defined as a drop in systolic blood pressure of 20 mmHg or more or in diastolic blood pressure of 10 mm Hg or more within three minutes of standing. If orthostatic hypotension is suspected, measure the patient’s vital signs while he or she is supine, sitting, and standing before encouraging ambulation. Monitor and document the patient’s response to activity, such as heart rate, blood pressure, dyspnea, and skin color. [13][14]

### Evaluation

Determine the patient’s progress towards their specific SMART outcomes. Encourage their participation in the setting of realistic goals for mobility and modify these goals as needed for safety.


