## Plan of Nursing Care: Care of the Elderly Patient With a Fractured Hip

**Nursing Diagnosis:** Acute pain related to fracture, soft tissue damage, muscle spasm, and surgery
Goal: Relief of pain

| Nursing Interventions | Rationale | Expected Outcomes |
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| 1. Assess type and location of patient's pain whenever vital signs are obtained and as needed. | 1. Pain is expected after fracture; soft tissue damage and muscle spasm contribute to discomfort; pain is subjective and is best evaluated on a pain scale of 0 to 10 and through description of characteristics and location, which are important for identifying cause of discomfort and for proposing interventions. Continuing pain may indicate development of neurovascular problems. Pain must be assessed periodically to gauge effectiveness of continuing analgesic therapy. | • Patient describes and rates pain on scale of 0 to 10<br>• Expresses confidence in efforts to control pain<br>• Expresses comfort with position changes<br>• Expresses comfort when leg is positioned and immobilized<br>• Minimizes movement of extremity before reduction and fixation<br>• Uses physical, psychological, and pharmacologic measures to reduce discomfort<br>• Describes a decrease in pain in 24 to 48 hours after surgery<br>• Requests pain medications and uses pain relief measures early in pain cycle<br>• States that positioning provides comfort<br>• Appears comfortable and relaxed<br>• Moves with |
| 2. Acknowledge existence of pain; inform patient of available analgesics; record patient's baseline discomfort. | 2. Reduces stress experienced by the patient by communicating concern and availability of help in dealing with pain. Documentation provides baseline data. | |
| 3. Handle the affected extremity gently, supporting it with hands or pillow. | 3. Movement of bone fragments is painful; muscle spasms occur with movement; adequate support diminishes soft tissue tension. | |
| 4. Apply Buck's traction if prescribed. Use trochanter roll. | 4. Immobilizes fracture to decrease pain, muscle spasm, and external rotation of hip. | |
| 5. Use pain-modifying strategies.<br>a. Modify the environment.<br>b. Administer prescribed analgesics as needed.<br>c. Encourage patient to use pain relief measures to relieve pain.<br>d. Evaluate patient's response to medications and other pain-reduction | 5. Pain perception can be diminished by distraction and refocusing of attention.<br>a. Interaction with others, distraction, and environmental stimuli may modify pain experiences.<br>b. Analgesics reduce the pain; muscle relaxants may be prescribed to decrease discomfort associated with muscle spasm.<br>c. Mild pain is easier to control than severe pain.<br>d. Assessment of effectiveness of measures provides basis for future management interventions; early identification of adverse reactions is necessary for corrective measures and care plan modifications. | |

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| | techniques.<br>e. Consult with physician if relief of pain is not obtained. | | e. Change in treatment plan may be necessary. | increasing comfort as healing progresses |
| 6. | Position for comfort and function. | 6. | Alignment of body facilitates comfort; positioning for function diminishes stress on musculoskeletal system. | |
| 7. | Assist with frequent changes in position. | 7. | Change of position relieves pressure and associated discomfort. | |

**Nursing Diagnosis:** Impaired physical mobility related to fractured hip
**Goal:** Achieves pain-free, functional, stable hip

| Nursing Interventions | | Rationale | | Expected Outcomes |
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| 1. | Maintain neutral positioning of hip. | 1. | Prevents stress at the site of fixation. | • Patient engages in therapeutic positioning<br>• Uses pillow between legs when turning<br>• Assists in position changes; shows increased independence in transfers<br>• Exercises every 2 hours while awake<br>• Uses trapeze<br>• Participates in progressive ambulation program<br>• Actively participates in exercise regimen<br>• Uses ambulatory aids correctly and safely |
| 2. | Use trochanter roll; roll to uninjured side. | 2. | Minimizes external rotation. | |
| 3. | Place pillow between legs when turning. | 3. | Supports leg; prevents adduction. | |
| 4. | Instruct and assist in position changes and transfers. | 4. | Encourages patient's active participation while preventing stress on hip fixation. | |
| 5. | Instruct in and supervise isometric, quadriceps-setting, and gluteal-setting exercises. | 5. | Strengthens muscles needed for walking. | |
| 6. | Encourage use of trapeze. | 6. | Strengthens shoulder and arm muscles necessary for use of ambulatory aids. | |
| 7. | In consultation with physical therapist, instruct in and supervise progressive safe ambulation within limitations of weight-bearing prescription. | 7. | Amount of weight bearing depends on the patient's condition, fracture stability, and fixation device; ambulatory aids are used to assist the patient with non–weight-bearing and partial-weight-bearing ambulation. | |
| 8. | Offer encouragement and support exercise regimen. | 8. | Reconditioning exercises can be uncomfortable and fatiguing; encouragement helps patient comply with the program. | |
| 9. | Instruct in and supervise safe use of ambulatory aids. | 9. | Prevents injury from unsafe use. | |

**Nursing Diagnosis:** Risk for infection related to surgical incision
**Goal:** Maintains asepsis

| Nursing Interventions | Rationale | Expected Outcomes |
|---|---|---|
| 1. Monitor vital signs. | 1. Temperature, pulse, and respiration increase in response to infection. (Magnitude of response may be minimal in elderly patients.) | • Patient maintains vital signs within normal range<br>• Exhibits well-approximated incision without drainage or excessive inflammatory response<br>• Relates minimal discomfort; demonstrates no hematoma<br>• Tolerates antibiotics; exhibits no evidence of osteomyelitis |
| 2. Perform aseptic dressing changes. | 2. Avoids introducing infectious organisms. | |
| 3. Assess wound appearance and character of drainage. | 3. Red, swollen, draining incision is indicative of infection. | |
| 4. Assess report of pain. | 4. Pain may be due to wound hematoma, a possible locus of infection, which needs to be surgically evacuated. | |
| 5. Administer prophylactic antibiotic if prescribed, and observe for side effects. | 5. Antibiotics reduce the risk for infection. | |

**Nursing Diagnosis:** Readiness for enhanced urinary elimination related to immobility
**Goal:** Maintains normal urinary elimination patterns

| Nursing Interventions | Rationale | Expected Outcomes |
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| 1. Monitor intake and output. | 1. Adequate fluid intake ensures hydration; adequate urinary output minimizes urinary stasis. | • Intake and output are adequate; patient exhibits normal voiding patterns<br>• Demonstrates no evidence of urinary tract infection |
| 2. Avoid/minimize use of indwelling catheter. | 2. Source of bladder infection. | |
| 3. Perform intermittent catheterization for urinary retention. | 3. Empties bladder; reduces urinary tract infections. | |

**Nursing Diagnosis:** Readiness for enhanced coping related to injury, anticipated surgery, and dependence
**Goal:** Uses effective coping mechanisms to modify stress

| Nursing Interventions | Rationale | Expected Outcomes |
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| 1. Encourage patient to express concerns and to discuss the possible impact of fractured hip. | 1. Verbalization helps patient deal with problems and feelings. Clarification of thoughts and feelings promotes problem | • Patient describes feelings concerning fractured hip and implications for |

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| | | | solving. | lifestyle<br>• Uses available resources and coping mechanisms; develops health promotion strategies<br>• Uses community resources as needed<br>• Participates in development of health care plan |
| 2. | Support use of coping mechanisms. Involve significant others and support services as needed. | 2. | Coping mechanisms modify disabling effects of stress; sharing concerns lessens the burden and facilitates necessary modification. | |
| 3. | Contact social services, if needed. | 3. | Anxiety may be related to financial or social problems; facilitates management of problems associated with continuing care. | |
| 4. | Explain anticipated treatment regimen and routines to facilitate positive attitude in relation to rehabilitation. | 4. | Understanding of plan of care helps to diminish fears of the unknown. | |
| 5. | Encourage patient to participate in planning. | 5. | Participating in care provides for some control of self and environment. | |

**Nursing Diagnosis:** Risk for disturbed thought process related to age, stress of trauma, unfamiliar surroundings, and medication therapy
**Goal:** Remains oriented and participates in decision making

| Nursing Interventions | Rationale | Expected Outcomes |
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| 1. Assess orientation status. | 1. Evaluate presenting orientation of patient; confusion may result from stress of fracture, unfamiliar surroundings, coexisting systemic disease, cerebral ischemia, hypoxemia, or other factors. Baseline data are important for determining change. | • Patient establishes effective communication<br>• Demonstrates orientation to time, place, and person<br>• Participates in self-care activities<br>• Remains mentally alert<br>• Avoids episodes of confusion |
| 2. Interview family regarding patient's orientation and cognitive abilities before injury. | 2. Provides data for evaluation of current findings. | |
| 3. Assess patient for auditory and visual deficits.<br>a. Assist patient with use of sensory aids (eg, glasses, hearing aid)<br>b. Control environmental distractors | 3. Diminished vision and auditory acuity frequently occur with aging; glasses and hearing aid may increase patient's ability to interact with environment.<br>a. Aids must be in good working order and available for use.<br>b. Facilitates communication. | |
| 4. Orient to and stabilize environment.<br>a. Use orientation activities and aids (eg, clock, calendar, pictures, introduction of self).<br>b. Minimize number of staff working with patient. | 4.<br>a. Short-term memory may be faulty in the elderly; frequent reorientation helps.<br>b. Consistency of caregivers promotes trust. | |
| 5. Give simple explanations of procedures and plan of care. | 5. Promotes understanding and active participation. | |
| 6. Encourage participation in hygiene and nutritional activities. | 6. Participation in routine activities promotes orientation, increases awareness of self. | |
| 7. Provide for safety.<br>a. Keep light on at night. | 7. Mechanism for securing assistance is available to patient; independent activities based on faulty judgment may result in injury. | |

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| | b. Have call bell available.<br>c. Provide prompt response to requests for assistance. | | | |
| 8. | Assess mental responses to medications, especially sedatives and analgesics. | 8. | Elderly people tend to be more sensitive to medications; abnormal responses (eg, hallucinations, depression) may occur. | |

**Collaborative Problems:** Hemorrhage; pulmonary complications; peripheral neurovascular dysfunction; deep vein thrombosis; pressure ulcers related to surgery and immobility
**Goal:** Absence of complications

| Nursing Interventions | | Rationale | | Expected Outcomes |
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| **Hemorrhage** | | | | |
| 1. | Monitor vital signs, observing for shock. | 1. | Changes in pulse, blood pressure, and respirations may indicate development of shock; blood loss and stress may contribute to development of shock. | • Vital signs are stabilized within normal limits<br>• Experiences no excessive or bright red drainage<br>• Exhibits stable postoperative hemoglobin and hematocrit values<br>• Patient has clear breath sounds<br>• Breath sounds present in all fields<br>• Exhibits no shortness of breath, chest pain, or elevated temperature |
| 2. | Consider preinjury blood pressure values and management of coexisting hypertension, if present. | 2. | Necessary for interpretation of current blood pressure determinations. | |
| 3. | Note character and amount of drainage. | 3. | Excessive drainage and bright red drainage may indicate active bleeding. | |
| 4. | Notify surgeon if patient develops shock or excessive bleeding. | 4. | Corrective measures need to be instituted. | |
| 5. | Note hemoglobin and hematocrit values, and report decreases in values. | 5. | Anemia due to blood loss may develop; bleeding into tissues after hip fracture may be extensive; blood replacement may be needed. | |
| **Pulmonary Complications** | | | | |
| 1. | Assess respiratory status: respiratory rate, depth, and duration, breath sounds, sputum. Monitor temperature. | 1. | Anesthesia and bed rest diminish respiratory effort and cause pooling of respiratory secretions. Adventitious breath sounds, pain on respiration, shortness of breath, blood tinged sputum, cough, etc., indicate pulmonary dysfunction. | • Vital signs are stabilized within normal limits<br>• Patient has clear breath sounds<br>• Breath sounds present in all fields<br>• Exhibits no shortness of breath, chest pain, or elevated temperature<br>• $PaO_2$ on room air within normal limits<br>• Performs respiratory exercises; uses incentive spirometer as instructed<br>• Changes position frequently |
| 2. | Report adventitious and diminished breath sounds and elevated temperature. | 2. | Elevated temperature in the early postoperative period may be due to atelectasis or pneumonia. | |
| 3. | Supervise deep breathing and coughing exercises. Encourage use of incentive spirometer if prescribed. | 3. | Promote optimal ventilation. Coexisting respiratory conditions diminish lung expansion. | |
| 4. | Administer oxygen as prescribed. | 4. | Reduced ventilatory efforts may diminish $PaO_2$ when patient is breathing room air. | |

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| 5. | Turn and reposition patient at least every 2 hours. Mobilize patient (assist patient out of bed) as soon as possible. | 5. | Promotes optimal ventilation. Diminishes pooling of respiratory secretions. | • Consumes adequate fluids |
| 6. | Ensure adequate hydration. | 6. | Liquefies respiratory secretions. Facilitates expectoration. | |
| **Peripheral Neurovascular Dysfunction** | | | | |
| 1. | Assess affected extremity for color and temperature. | 1. | The skin becomes pale and feels cool with decreased tissue perfusion. Venous congestion may cause cyanosis. | • Patient has normal color and the extremity is warm<br>• Demonstrates normal capillary refill response<br>• Exhibits moderate swelling; tissue not palpably tense<br>• States pain is tolerable<br>• Reports no pain with passive dorsiflexion<br>• Reports normal sensations and no paresthesia<br>• Demonstrates normal motor abilities and no paresis or paralysis<br>• Has strong and equal pulses |
| 2. | Assess toes for capillary refill response. | 2. | After compression of the nail, rapid return of pink color indicates good capillary perfusion. | |
| 3. | Assess affected extremity for edema and swelling. | 3. | The trauma of surgery will cause swelling; excessive swelling and hematoma formation can compromise circulation and function; edema may be due to coexisting cardiovascular disease. | |
| 4. | Elevate affected extremity. | 4. | Minimizes dependent edema. | |
| 5. | Assess for deep, throbbing, unrelenting pain. | 5. | Surgical pain can be controlled; pain due to neurovascular compromise is refractory to treatment with analgesics. | |
| 6. | Assess for pain on passive flexion of foot. | 6. | With nerve ischemia, there will be pain on passive stretch. | |
| 7. | Assess for sensations and numbness. | 7. | Diminished pain and paresthesia may indicate nerve damage. Sensation in web between great and second toe-peroneal nerve; sensation on sole of foot-tibial nerve. | |
| 8. | Assess ability to move foot and toes. | 8. | Dorsiflexion of ankle and extension of toes indicate function of peroneal nerve. Plantar flexion of ankle and flexion of toes indicate functioning of tibial nerve. | |
| 9. | Assess pedal pulses in both feet. | 9. | Indicates circulatory status of extremities. | |
| 10. | Notify surgeon if diminished neurovascular status occurs. | 10. | Function of extremity needs to be preserved. | |
| **Deep Vein Thrombosis** | | | | |

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| 1. | Apply thigh-high anti-embolism stockings and/or sequential compression device as prescribed. | 1. | Compression aids venous blood return and prevents stasis. | • Wears thigh-high anti-embolism stockings<br>• Uses sequential compression device<br>• Experiences no more warmth than usual in skin areas<br>• Exhibits no increase in calf circumference<br>• Demonstrates no evidence of calf tenderness, warmth, redness, or swelling<br>• Changes position with assistance and supervision<br>• Participates in exercise regimen<br>• Experiences no chest pain; has lungs clear to auscultation; presents no evidence of pulmonary emboli<br>• Exhibits no signs of dehydration; has normal hematocrit<br>• Maintains normal body temperature |
| 2. | Remove stockings for 20 minutes twice a day, and provide skin care. | 2. | Skin care is necessary to avoid skin breakdown. Extended removal of stocking or device defeats purpose. | |
| 3. | Assess popliteal, dorsalis pedis, and posterior tibial pulses. | 3. | Pulses indicate arterial perfusion of extremity. With coexisting arteriosclerotic vascular disease, pulses may be diminished or absent. | |
| 4. | Assess skin temperature of legs. | 4. | Local inflammation increases local skin temperature. | |
| 5. | Assess calf every 4 hours for tenderness, warmth, redness, and swelling. | 5. | Unilateral calf tenderness, warmth, redness, and swelling may indicate deep vein thrombosis. | |
| 6. | Measure calf circumference twice daily. | 6. | Increased calf circumference indicates edema or altered perfusion. | |
| 7. | Avoid pressure on popliteal blood vessels from appliances or pillows. | 7. | Compression of blood vessels diminishes blood flow. | |
| 8. | Change patient's position and increase activity as prescribed. | 8. | Activity promotes circulation and diminishes venous stasis. | |
| 9. | Supervise ankle exercises hourly while patient is awake. | 9. | Muscle exercise promotes circulation. | |
| 10. | Ensure adequate hydration. | 10. | Elderly people may become dehydrated because of low fluid intake, resulting in hemoconcentration. | |
| 11. | Monitor body temperature. | 11. | Body temperature increases with inflammation (magnitude of response minimal in elderly people). | |
| **Pressure Ulcers** | | | | |
| 1. | Monitor condition of skin at pressure points (eg, heels, sacrum, shoulders); inspect heels at least twice a day. | 1. | Elderly patients are subject to skin breakdown at points of pressure because of diminished subcutaneous tissue. | • Patient exhibits no signs of skin breakdown<br>• Skin remains intact<br>• Repositions self frequently |
| 2. | Reposition patient at | 2. | Avoids prolonged pressure and trauma | |

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| | least every 2 hours. Avoid skin shearing. | | to the skin. | • Uses protective devices |
| 3. | Administer skin care, especially to pressure points. | 3. | Immobility causes pressure at bony prominences; position changes relieve pressure. | |
| 4. | Use special care mattress and other protective devices (eg, heel protectors); support heel off the mattress. | 4. | Devices minimize pressure on skin at bony prominences. | |
| 5. | Institute care according to protocol at first indication of potential skin breakdown. | 5. | Early interventions prevent tissue destruction and prolonged rehabilitation. | |

**Nursing Diagnosis:** Risk for ineffective health maintenance related to fractured hip and impaired mobility
**Goal:** Exhibits health maintenance/promotion behaviors

| Nursing Interventions | Rationale | Expected Outcomes |
|---|---|---|
| 1. Assess home environment for discharge planning. | 1. Physical barriers (especially stairs, bathrooms) may limit patient's ability to ambulate and care for self at home. | • Home is accessible for patient at time of discharge<br>• Patient appears relaxed and develops strategies to deal with identified problems<br>• Has personal assistance available<br>• Demonstrates ability to use necessary assistive devices within therapeutic prescription<br>• Complies with home care program; keeps follow-up health care appointments |
| 2. Encourage patient to express concerns about care at home; explore with patient possible solutions to problems. | 2. Patient may have special problems that need to be identified so that solutions might be identified. | |
| 3. Assess availability of physical assistance for ADLs and health care activities. | 3. Because of limitation of mobility, patient requires some assistance in ADLs and routine health care. | |
| 4. Teach caregiver the home health care regimen. | 4. Understanding of rehabilitative regimen is necessary for compliance. | |
| 5. Instruct patient in posthospital care:<br>a. Activity limitations.<br>b. Reinforce exercise instructions.<br>c. Safe use of ambulatory aids.<br>d. Wound care.<br>e. Measures to promote healing (nutrition, wound care).<br>f. Medications.<br>g. Potential problems.<br>h. Continuing health care supervision. | 5. Lack of knowledge and poor preparation for care at home contribute to patient anxiety, insecurity, and nonadherence to therapeutic regimen. | |