George McMurphy, a 45-year-old from northern Minnesota, was diagnosed with MS approximately 5 years ago. He states that he probably had mild symptoms as long ago as 10 years. He works as a manager for a large grocery store chain near his home. He lives at home with his wife and two children, ages 12 and 15. Recently, Mr. McMurphy has had increasing problems with urinary incontinence, lack of energy, weakness, extreme fatigue, and altered mobility from spasticity in his leg muscles. He also has a fever, chest congestion, and a cough productive of green sputum. He is admitted to the hospital for evaluation and treatment of pneumonia and exacerbation of his MS.

**ASSESSMENT**

Denise Miller, RN, primary care nurse, is assigned to care for Mr. McMurphy. His major complaint is the inability to “bring up all this sputum; I feel rotten from being so congested. I hate not being able to get to work and for my wife having to tend to my personal needs.” Vital signs are as follows: BP 134/84, P 94, R 30, T 102°F (38.8°C). Mr. McMurphy is admitted for an acute exacerbation of the disorder, probably triggered by pneumonia. He will be treated with ACTH and intravenous antibiotics during this admission.

**DIAGNOSES**

- Ineffective airway clearance, related to lung infection and thick mucus
- Activity intolerance, related to fatigue and spasticity
- Self-care deficit: Toileting, feeding, and grooming, related to muscle weakness

**EXPECTED OUTCOMES**

- Be able to clear airway.
- Have breath sounds clear to auscultation and pulse oximetry readings above 95%.
- Be able to ambulate using assistive devices, if needed.
- Perform self-care activities without becoming overly fatigued and tired.
- Verbalize methods to adapt daily routine to his level of tolerance.

**PLANNING AND IMPLEMENTATION**

- Initiate pulmonary hygiene measures (e.g., incentive spirometry, turning, deep breathing and coughing, breathing exercises, and postural drainage) at least every 2 hours. Assess lung sounds, oxygen saturation, and ability to clear airway.
- Teach the importance of maintaining an oral fluid intake of at least 2000 mL per day to prevent tenacious sputum and to prevent urinary tract infections. Teach signs and symptoms of urinary and respiratory infections.
- Encourage participation in decision making about care.
- Assist with ADLs only as needed, based on level of fatigue and muscle weakness.
- Plan self-care activities so that they are performed during periods of peak level of energy; intersperse rest periods throughout the day.
- Refer to an MS support group.
- Refer to physical and occupational therapists for counseling regarding control of spasticity and possible splinting of spastic muscles.
- Consult a urologist for assessment of bladder incontinence; teach intermittent catheterization. Alternatively, the use of an external condom catheter may be indicated.

**EVALUATION**

Mr. McMurphy is discharged 3 days following admission. He states that he feels stronger; on discharge, he has no problem clearing his airway. Although he continues to pace his activities to avoid fatigue, his muscle strength and “tiredness” have improved. He is able to complete ADLs unassisted.

Pulmonary function has returned to normal, prehospitalization levels: ABGs and pulse oximetry are within normal limits. Both Mr. McMurphy and his wife have listed several ways to modify their daily routine to allow more rest and decreased stress. Follow-up visits to his primary care physician have been arranged, and they have been provided with information about the local MS support group.

**Critical Thinking in the Nursing Process**

1. Describe approaches the nurse could take to ensure that Mr. McMurphy does not exceed his activity tolerance.
2. Develop a teaching plan for Mr. McMurphy to help prevent future respiratory infections.
3. Develop a care plan for Mr. McMurphy for the nursing diagnosis, Risk for injury related to fatigue, muscle weakness, and spasticity.

See Evaluating Your Response in Appendix C.