



NURSING CARE PLAN For Ineffective Airway Clearance

ASSESSMENT DATA

Nursing Assessment

Johti Singh is a 39-year-old secretary who was admitted to the hospital with an elevated temperature, fatigue, rapid, labored respirations; and mild dehydration. The nursing history reveals that Ms. Singh has had a “bad cold” for several weeks that just wouldn’t go away. She has been dieting for several months and skipping meals. Ms. Singh mentions that in addition to her full-time job as a secretary she is attending college classes two evenings a week. She has smoked one package of cigarettes per day since she was 18 years old. Chest x-ray confirms pneumonia.

Physical Examination

Height: 167.6 cm (5’6”)
Weight: 54.4 kg (120 lb)
Temperature: 39.4°C (103°F)
Pulse: 68 BPM
Respirations: 24/minute
Blood pressure: 118/70 mm Hg
Skin pale; cheeks flushed; chills; use of accessory muscles; inspiratory crackles with diminished breath sounds right base; expectorating thick, yellow sputum

Diagnostic Data

Chest x-ray: right lobar infiltration
WBC: 14,000
pH: 7.49
PaCO₂: 33 mm Hg
HCO₃⁻: 20 mEq/L
PaO₂: 80 mm Hg
O₂ sat: 88%

NURSING DIAGNOSIS

Ineffective Airway Clearance related to thick sputum, secondary to pneumonia (as evidenced by rapid respirations, diminished and adventitious breath sounds, thick yellow sputum)

DESIRED OUTCOMES*

Respiratory Status: Airway Patency [0410] as evidenced by not compromised

- Respiratory rate
- Moves sputum out of airway
- No adventitious breath sounds

NURSING INTERVENTIONS*/SELECTED ACTIVITIES

Cough Enhancement [3250]

Assist Ms. Singh to a sitting position with head slightly flexed, shoulders relaxed, and knees flexed.

RATIONALE

Lying flat causes the abdominal organs to shift toward the chest, crowding the lungs and making it more difficult to breathe.

NURSING INTERVENTIONS*/SELECTED ACTIVITIES

RATIONALE

Encourage her to take several deep breaths.	<i>Deep breathing promotes oxygenation before controlled coughing.</i>
Encourage her to take a deep breath, hold for 2 seconds, and cough two or three times in succession.	<i>Controlled coughing is accomplished by closure of the glottis and the explosive expulsion of air from the lungs by the work of abdominal and chest muscles.</i>
Encourage use of incentive spirometry, as appropriate.	<i>Breathing exercises help maximize ventilation.</i>
Promote systemic fluid hydration, as appropriate.	<i>Adequate fluid intake enhances liquefaction of pulmonary secretions and facilitates expectoration of mucus.</i>

Respiratory Monitoring [3350]

Monitor rate, rhythm, depth, and effort of respirations.	<i>Provides a basis for evaluating adequacy of ventilation.</i>
Note chest movement, watching for symmetry, use of accessory muscles, and supraclavicular and intercostal muscle retractions.	<i>Presence of nasal flaring and use of accessory muscles of respirations may occur in response to ineffective ventilation.</i>
Auscultate breath sounds, noting areas of decreased or absent ventilation and presence of adventitious sounds.	<i>As fluid and mucus accumulate, abnormal breath sounds can be heard including crackles and diminished breath sounds owing to fluid-filled air spaces and diminished lung volume.</i>
Auscultate lung sounds after treatments to note results.	<i>Assists in evaluating prescribed treatments and client outcomes.</i>
Monitor client's ability to cough effectively.	<i>Respiratory tract infections alter the amount and character of secretions. An ineffective cough compromises airway clearance and prevents mucus from being expelled.</i>
Monitor client's respiratory secretions.	<i>People with pneumonia commonly produce rust-colored, purulent sputum.</i>
Institute respiratory therapy treatments (e.g., nebulizer) as needed.	<i>A variety of respiratory therapy treatments may be used to open constricted airways and liquefy secretions.</i>
Monitor for increased restlessness, anxiety, and air hunger.	<i>These clinical manifestations would be early indicators of hypoxia.</i>
Note changes in SpO ₂ , tidal volume, and changes in arterial blood gas values, as appropriate.	<i>Evaluates the status of oxygenation, ventilation, and acid–base balance.</i>

EVALUATION

Outcome partially met. Ms. Singh coughs and deep breathes purposefully q1–2h during the day. Her fluid intake is approximately 1,500 mL each day. Cough continues to be productive of moderately thick, rusty-colored sputum. Inspiratory crackles remain present in right lower lobe.

**The NOC # for desired outcomes and the NIC # for nursing interventions are listed in brackets following the appropriate outcome or intervention. Outcomes, interventions and activities selected are only a sample of those by NOC and NIC and should be further individualized for each client.*

APPLYING CRITICAL THINKING

1. What factors may have led the medical staff to suspect that Ms. Singh had more than a very bad cold? Would you have come to the same conclusion?
2. The care plan appropriately focuses on the acute care of this client. Once she is significantly improved, the nurse will perform discharge teaching. What areas should be included?
3. The client already has some signs of respiratory distress. What signs might indicate that her condition was deteriorating into a more emergency situation? How would you handle this?
4. It appears that the client's sputum has not been cultured. In caring for this client, what infection control guidelines would be needed?
5. Ms. Singh's oxygen order is for a face mask at 6 L/minute. She repeatedly pulls it off and you find it lying in the sheets. How might you intervene?

See *Critical Thinking Possibilities* in Appendix A. 