

PROTOCOL FOR: Rotational Therapy: Patient Selection and Implementation

- POLICY:
1. Rotational therapy will be used primarily in the ICU with rare exceptions on the Med-Surg units.
 2. Rotational therapy requires an MD order to start and discontinue.

DESIRED
PATIENT
OUTCOME:

1. Prevention of nosocomial pulmonary complication.
2. Treatment of pulmonary infiltrates/pneumonia/Adult Respiratory Distress Syndrome leading to improved oxygenation, and/or improved chest x-rays.

PATIENT
SELECTION
CRITERIA:

1. Ventilated patients with sepsis, pneumonia or ARDS. May be used early on to prevent progression to ventilator assistance.
2. Patient with deteriorating chest x-ray (CXR) or ABG's.
3. Patients at high-risk for nosocomial infections may be placed on rotational therapy for primary prevention, i.e. neuromuscular disorders, post-operative, trauma, risk for aspiration, ineffective airway clearance.
4. Immobile patient, such as those with a neuromuscular blockade, or acute stroke.
5. MD states it to be unsafe to manually turn patient due to injuries, disease process, must be written as an MD order.

CONTRA-
INDICATIONS:

1. Unstable spinal cord injury.
2. Long bone traction.

CLINICAL
ASSESSMENT
AND CARE:

1. Assess patient tolerance to rotation while in training mode.
3. Assess breath sounds, secretions, neuro status prior to initiation of therapy; then every 2-4° and PRN while on rotational therapy.
4. Complete systems assessments per unit standards.
5. Patients should be rotated for 18-20 hours/24 hour period. Keep breaks to 30 minute intervals. Pulsation provides comfort for periods of agitation. Standard mode may be used for daily care and instability.
6. If patient has thick secretion, increase pause times to two minutes on the unaffected lung.

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7. Minimize linens under patient, by trying to use incontinence pads only. If patient positioning is difficult use a single sheet open flat to reduce friction and shear of the skin.
8. Tolerance of rotation tends to increase as patient's understanding of the benefits can be explained. Patients receiving sedation and confused patients may need additional support or frequent explanations.
9. When patient is placed on therapy, reassess every four hours for:
 - a. Confirmation that patient's shoulders are positioned on the fourth cushion from the head of the bed and that the patient is in the center of the bed.
 - b. Rotate patient 18-20 out of 24 hours/day for a minimum of 100-106 rotations/24 hours. Rotation less than this will not provide maximum therapeutic effect. If rotation is less than 18 hours or 100-106 rotations/24 hours, evaluate for discontinuation of therapy.
10. Ensure that enough tubing is provided so that IV and ventilator tubing are not stretched during rotation. Patient restraints should also be assessed for slack. If patient is restrained - follow restraint protocol.
11. Evaluate daily for effectiveness of therapy. Review:
 - a. CXR results.
 - b. Review of ventilator settings/sheets (compliance, minute volume, VT, NIF).
 - c. ABG's.
 - d. Physical assessment findings (breath sounds, color/amount/consistency of secretions, HR, RR, temperature).
 - e. General considerations: Nutrition, fluid/electrolyte balance, lab work.
12. Alternate therapy modes when indicated:
 - a. Percussion - clapping of the chest wall, transmitted through the thorax that is thought to loosen mucus. Specify - frequency, intensity and duration.
 - b. Vibration - chest shaking, a further means of transmitting phasic energy through the thorax; also believed to help move secretions.

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c. Pulsation - indicated for patient comfort. The soothing massage action may provide increased comfort and relaxation for patients as well as automatic pressure adjustment to promote skin integrity.

13. The bed frame has built in safety alarms/checks to maintain a safe patient environment. Refer to the bed manual for specifics.

14. If any of the following occur, discuss possibility of discontinuing therapy with MD:

a. Significant improvement in pulmonary status.

b. CXR improving, resolving infiltrates.

c. Decreasing need for ventilator support:

1) ABG's consistently improving, stable.

2) CXR: consistently improving.

d. Increasing mobility of patient.

e. Extreme agitation.

f. Increased ability to cough.

g. Withdrawal of aggressive measures:

1) Discuss discontinuation of rotational therapy once a DNR order is written.

15. Change patient to appropriate bed, based on skin - condition and patient status.

16. After discontinuing therapy, per OSHA guidelines, cover unit with the plastic coverlet provided.

PATIENT TEACHING: 1. Instruct patient and family re:

a. purpose of rotational therapy.

b. expected outcomes.

2. Instruct patient to verbalize any discomfort regarding rotational therapy.

APPROVAL: ICU Standards Committee
Medical/Surgical Standards Review
Nursing Standards Committee

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EFFECTIVE DATE: 1/94

REVISION DATES: 1/95, 11/97, 3/00, 10/03