Rancho Los Amigos National Rehabilitation Center
DEPARTMENT OF NURSING
POST-ANESTHESIA RECOVERY ROOM
POLICY AND PROCEDURE

SUBJECT: EXTUBATION IN PAR

Policy No.: PACU06
Supersedes: ALL
Revised Date: 12/2015

Purpose of Procedure: To outline the procedure for the removal of the endotracheal tube in the PACU.

Physician's Order Required: Yes

Performed By: MD, CRNA and an RN under supervision of an MD or CRNA

Equipment: 10ml syringe, emesis basin, suction equipment and Wright's Respirometer.

Policy: All patients admitted to the PACU will have a patent airway established via the use of positioning or artificial airways until able to manage secretions and breathing on their own.

Procedural Steps:

1. Verify that patient can support ventilation independently.

    a. Check the level of consciousness.
    KEY POINT: Usually the patient, who demonstrates desire for endotracheal tube removal, tolerates this procedure well.
    b. Check for any residual effects of muscle relaxation.
    KEY POINT: Have patient sustain a strong hand grip and/or lift and hold his/her head in the supine position for five seconds. If patient is able to do this, he/she will probably be able to maintain adequate respiratory function.
    c. Check rate of respirations
    KEY POINT: A rapid respiratory rate causes diminished vital capacities, indicating minimal respiratory reserve. A patient who will not, or cannot, take a deep breath is not likely to maintain alveolar expansion or be able to clear his/her secretions.
    d. An anesthesiologist will check the minute volume, if indicated. To determine minute volume use the Wrights respirometer and count the number of cc's of air recorded on the dial and divide this by the number of respirations counted in the same minute.
    KEY POINT: An average adult should have approximately 4-6 liter of minute volume prior to estuation.

2. Explain the procedure to the patient.

3. Suction inside the endotracheal tube.
    KEY POINT: Avoid prolonged suctioning which depletes oxygenation.

4. Suction the patient's mouth to clear secretions that may have collected above the cuff of the endotracheal tube.

5. An anesthesiologist and/or CRNA will deflate the endotracheal cuff. The PACU RN may deflate the cuff under the anesthesiologist/CRNA supervision.

KEY POINT: The cuff pillow will be flat when all air has been removed.

6. Remove any tape securing the endotracheal tube.

7. Have the patient take a deep breath.

8. An anesthesiologist, CRNA or PACU RN, under the direct supervision of the anesthesiologist/CRNA will pull the tube out in a smooth, steady motion during the patient's expiration.
KEY POINT: Observe for symptoms of laryngospasm. The Gag reflex may also be stimulated. Have an emesis basin and suction readily available.

9. Suction the patient's mouth.

10. Apply oxygen via aerosol mask immediately after extubation.

11. Evaluate patient immediately for signs and symptoms of airway obstruction, stridor, or difficult breathing. If patient develops any of the above problems, ventilate him/her with an ambu bag, notify the anesthesiologist and prepare for reintubation.
KEY POINT: Immediate complications post extubation may include laryngospasm or edema at cuff site.

DOCUMENTATION:
Chart the following on the Post Op Care Record:
a. Time of extubation
b. Name of person completing extubation
c. Minute volume if done
d. Patient's tolerance of the procedure
e. Any unusual occurrences and care provided

REVIEWED BY: Patricia Morri, RN, BSN

REFERENCES:
American Society of Post Anesthesia Nurses. (2012) Standards of Perianesthesia Nursing Practice. Thorofare, New Jersey.
Drain's Perianesthesia Nursing: A critical Care Approach, 6th edition, Jan Odom-Fohren
Joint Commission, 2014 P.C.03.01.07

PACU06.06