PURPOSE:
To maintain a patent airway and prevent infection due to the accumulation of secretions.

CONSIDERATIONS:
1. The best times to perform this procedure are when the child wakes up, before bedtime, before meals or 1 hour after meals.
2. The child must be placed in several different positions for the postural drainage. Some children are unable to tolerate certain positions.
3. Length of treatment in each position should be at least 2 to 3 minutes of percussion followed by vibration.
4. The bottom of a baby bottle nipple can be padded with tissue secured with adhesive tape and used for percussion of an infant. A percussion cap should be used for children.
5. During percussion, a hollow sound should be produced (not a slapping sound).
6. Have the child wear a shirt so your hand does not touch the child's bare skin during percussion.
7. Percussion and vibration are performed over the rib cage, not over sternum, spine, stomach, kidneys or liver.
8. Infants and small children can be positioned in your lap. For older children, a padded slant board can be used. If a slant board is not available, a bed or couch at a comfortable height can be used. Pillows are helpful in positioning the child comfortably.

EQUIPMENT:
Percussion cup or padded nipple
T-shirt or small blanket

PROCEDURE:
1. Adhere to Standard Precautions.
2. Identify and explain procedure to caregiver and patient, if age appropriate.
3. Remove any constricting clothing from child.
4. Review physician’s orders for location of affected lung segment(s), prescribed treatment, and sequence of procedure, e.g., if ordered, include use of nebulizer prior to treatment, percussion/clapping and vibration in each position.
   a. Apical segment of the upper lobes (posterior): Percuss over the right and left scapula from midscapula up.
   b. Apical segment of the upper lobes (anterior): Percuss over the area of the right and left clavicles.
   c. Posterior segment of upper lobes: Percuss over the area above the midscapular line in the right and left sides.
   d. Anterior segment of upper lobes: Percuss in the area above the breast to the clavicle.
   e. Right middle lobe and lingula of left upper lobe: Percuss above or below breast on the respective side.
   f. Lower lobes (anterior): Percuss from the breast to the base of the last rib.
   g. Lower lobes (lateral): Percuss from the base of the axilla to the base of the last rib.
   h. Lower lobes (posterior): Percuss from the midscapula area to the base of the last rib.
5. Auscultate breath sounds to determine baseline prior to vibration and/or percussion treatment.
6. Encourage deep breathing with complete exhalation. The child can also use special blow bottles or try to blow up a balloon. These help the child to take deep breaths and encourage coughing. Give patient a soft pillow or stuffed toy to hug while coughing to provide support.
7. Percuss by cupping the area for about 2 to 3 minutes throughout inhalation and exhalation.
8. During exhalation vibrate the area as the child breathes out. Repeat this for 3 breaths. If the child is too young to understand how to breathe deeply and slowly, just vibrate during a few breaths.
9. Encourage the child to cough 3 consecutive times. Since he may not be able to cough when lying down, help the child to a sitting position to produce a deep cough.
10. Watch the child carefully for signs of tiredness. The postural drainage should be stopped before the child becomes exhausted. It can be continued after the child has had an opportunity to rest.
11. Auscultate breath sounds upon completion of vibration and/or percussion.

AFTER CARE:
1. Document in patient’s record:
   a. Breath sounds before and after procedure.
   b. Secretions expelled.
   c. Patient’s response to procedure.
   d. Instructions given to caregiver.