2C - AIRWAY SUCTIONING ADULT & PEDIATRIC

EMERGENCY MEDICAL RESPONDER

EMT

EMT-INTERMEDIATE 85

ADVANCED EMT

PARAMEDIC

Indications:

1. Trauma to the face and/or upper airway, with potential or actual airway obstruction.
2. Vomitus, food boluses or other liquid foreign material in airway.
3. Excess secretions or pulmonary edema fluid in upper airway (or lungs with endotracheal tube in place).
4. Amniotic fluid in naso/oropharynx of newborn with obvious obstruction to spontaneous breathing or who require positive-pressure ventilation.
5. Meconium in naso/oropharynx of non-vigorous newborn.

Contraindications:

1. Airway patency effective without additional suctioning assistance.
2. Amniotic fluid or meconium in naso/oropharynx of vigorous, non-dyspneic newborn.

Technique:

A. Open airway and inspect for visible foreign material.
B. Turn patient on side if possible to facilitate clearance of liquid foreign material.
C. Remove large or obvious foreign particulates with gloved hands. Sweep finger ACROSS posterior pharynx and clear material out of mouth in adults or if visible material in pediatrics.
D. Power on suction machine.
E. Suction of oropharynx:
    1. Attach suction catheter (or use open end of suction tubing for large amounts of debris).
    2. Oxygenate and ventilate the patient prior to the procedure as needed.
    3. Insert tip into oropharynx under direct vision, with sweeping motion.
    4. Continue intermittent suction interspersed with active oxygenation by mask. Use positive pressure ventilation if needed.
    5. If suction becomes clogged, dilute by suctioning water or normal saline to clean tubing. If suction clogs repeatedly, use connecting tubing alone, or manually remove large debris.

PROTOCOL 2C: Airway Suctioning – Adult & Pediatric, cont.

Technique, cont.:

F. Catheter suction of endotracheal tube:

1. Attach suction catheter to tubing of suction device (leaving suction end in sterile container).
2. Ventilate patient 4 - 5 times for pre-suction oxygenation.
3. Detach bag from endotracheal tube and insert sterile tip of suction catheter without suction.
4. When catheter tip has been gently advanced to estimated carina depth, apply suction and withdraw catheter slowly.
5. Rinse catheter tip in sterile water or normal saline.
6. Ventilate patient before each suction attempt.

Precautions:

1. Suctioning, particularly through endotracheal tubes, always risks suctioning the available oxygen as well as the fluid from the airway. In most situations, limit the suction time to a few seconds while the catheter is being withdrawn. This precaution should NOT be followed when vomitus or other material continues to well up and completely obstruct airway. Then suctioning must be continued until an airway is reestablished, with intermittent oxygenation and ventilation performed to avoid prolonged lack of oxygen.

2. Use equipment large enough for the job at hand. Large, solid matter will not be cleared out with suction catheters. Large amounts of particulate matter require open-ended suction using connecting tubing and physical removal with a gloved hand (using bite precautions) or use of Magill forceps.

3. The catheter and tubing will require frequent rinsing with water or normal saline to permit continued suctioning. Have a container of water or normal saline at hand before you begin. Use gauze to remove large material from the end of the catheter.

4. Do not insert a suction catheter with the suction functioning. Suction only on withdrawal of the catheter.

Complications:

1. Hypoxia due to excessive suctioning time without adequate ventilation between attempts.
2. Persistent obstruction due to inadequate tubing size for removal of debris.
3. Lung injury from aspiration of stomach contents due to inadequate suctioning.
4. Asphyxia due to recurrent obstruction if airway is not monitored after initial suctioning.
5. Trauma to the posterior pharynx from forced use of equipment.
6. Vomiting and aspiration from stimulation of gag reflex.
7. Induction of cardio-respiratory arrest from vagal stimulation.