

Pre-Hospital Nasogastric / Orogastric Tube Insertion Program Overview

Program Title

“Pre-Hospital Nasogastric / Orogastric Tube Insertion”

Student Eligibility

- Emergency Medical Technicians certified to perform endotracheal intubation in the Commonwealth of Massachusetts.

Course Format

- Although this material may be presented in a number of formats, a lecture / discussion model with practical scenario is given here. This program may be added to other standing programs, such as ACLS, PALS, or the Commonwealth’s ALS Interfacility Transfer Training Program.

Objectives

Upon completion of the training program, the intubation-certified advanced provider will be able to:

- Discuss the Massachusetts Pre-Hospital Treatment Protocol concerning NG/OG tube insertion
- State the indications and contraindications of placing a NG/OG tube.
- Describe the procedure of placing a NG/OG tube.
- Demonstrate the placement of a NG/OG tube in an intubation manikin in a classroom setting.

Outline

- See the attached Program Outline

Teaching Methods

- Lecture / Discussion
- Practical Skill Sessions / Stations
- Open Question and Answer Periods

Faculty

- Any Massachusetts provider currently authorized to perform the skill of NG/OG Tube insertion. This may include MD, PA, or RN. EMT-Paramedics or EMT-Intermediates who have previously completed this program are also eligible.

References

- Advanced Life Support Skills, Polk, Gardner, Hunt and Prasad, Mosby-Lifeline Publishing, 1994.
- Atlas of Paramedic Skills, Bledsoe, Brady Publishing, 1997.
- Comprehensive Guide to Pre-Hospital Skills, Butman, Martin, Vormacka, and McSwain, Mosby-Lifeline Publishing, 1996.
- Paramedic Field Care, Pons and Cason, American College of Emergency Physicians, Mosby Lifeline Publishing, 1997.

Pre-Hospital Nasogastric / Orogastric Tube Insertion Program Outline

- 1. Program Overview (5 minutes)**
 - 1.1. Student Registration and Administrative Concerns
 - 1.2. Introduction of Faculty
 - 1.3. Program Objectives
 - 1.4. Program Outline
 - 1.5. Program Duration
- 2. Review of Massachusetts Protocol concerning NG/OG tubes (10 minutes)**
 - 2.1. Effected protocols
 - 2.2. Indications
 - 2.2.1. Decompression of a distended stomach
 - 2.3. Contraindications
 - 2.3.1. Nasogastric tubes are contraindicated in the presence of severe facial trauma. In this instance, an orogastric tube may be inserted at the direction of Medical Control.
 - 2.3.2. Epiglottitis or croup.
- 3. Review of local policies, including documentation (5 minutes)**
 - 3.1. Local Policies inserted here.
 - 3.2. Local documentation policies inserted here.
 - 3.2.1. Documentation may include:
 - 3.2.1.1. Time procedure was performed
 - 3.2.1.2. Tube size
 - 3.2.1.3. Tube placement check, and by what manner
 - 3.2.1.4. Degree of difficulty encountered
 - 3.2.1.5. Complications encountered
 - 3.2.1.6. Name of provider performing procedure
- 4. Review of pertinent anatomy (5 minutes)**
 - 4.1. Upper airway structures
 - 4.2. Upper gastrointestinal tract
- 5. Equipment introduction and Procedure demonstration (10 minutes)**
 - 5.1. Equipment
 - 5.1.1. Personal protective equipment
 - 5.1.2. NG/OG tube (Levin or Salem Sump tube, sized for patient / manikin)
 - 5.1.3. Catheter tip irrigation syringe (50ml or smaller for pediatric patient)
 - 5.1.4. Water-soluble lubricant
 - 5.1.5. Adhesive tape
 - 5.1.6. Saline for irrigation
 - 5.1.7. Emesis basin
 - 5.1.8. Low powered suction device
 - 5.2. Procedure (abbreviated)
 - 5.2.1. Assess the need for NG/OG tube insertion.
 - 5.2.2. Use body substance isolation precautions.
 - 5.2.3. Assemble the needed equipment.
 - 5.2.4. Examine for deformity or obstructions.
 - 5.2.5. For NG tube insertion, determine best side for insertion.
 - 5.2.6. Measure the tube according to the body size of the patient (adult/pediatric).
 - 5.2.6.1. OG Tube procedure.

- 5.2.6.2. NG Tube procedure.
 - 5.2.7. Lubricate the tube.
 - 5.2.8. Insert the tube.
 - 5.2.9. Pass the tube to the pre-determined point.
 - 5.2.10. Check the placement of the tube.
 - 5.2.11. Secure the tube in place.
 - 5.2.12. Connect the tube to low-power suction, if ordered.
 - 5.2.13. Document the procedure
- 6. Student practical skill sessions/stations (20 minutes)**
- 6.1. Recommended one instructor per six to eight students and one training manikin capable of accepting an NG/OG tube.
 - 6.2. Skill sessions should be scenario-based (see attached sample cases.)
 - 6.3. Larger groups may benefit from station rotation in timed intervals.
- 7. Review, Questions and Answers (5 minutes)**

Total Program Time One Hour (60 minutes)

Pre-Hospital Nasogastric / Orogastric Tube Insertion Sample Cases

Case One

A 57-year-old male patient has collapsed unconscious on his kitchen floor. First responders arrived to find the man in cardiac arrest. They begin treatment including the use of the AED and a demand valve resuscitator. On your arrival you find the patient in cardiac arrest with a distended abdomen. Using the manikin and materials provided, describe and perform all airway maintenance procedures indicated by Massachusetts Protocols.

Case Two

A five-year-old female patient was found by her neighbor at the bottom of a swimming pool on a summer day. She is thought to have been underwater less than five minutes. First arriving responders provide CPR for the girl's pulseless state, and begin c-spine immobilization as a precaution. . Using the manikin and materials provided, describe and perform all airway maintenance procedures indicated by Massachusetts Protocols.

Case Three

You are called to the home of a twenty-three year old male who has overdosed on heroin. As the first arriving responder, you find the patient lying on the floor, cyanotic and apneic with a strong radial pulse. Using the manikin and materials provided, describe and perform all airway maintenance procedures indicated by Massachusetts Protocols.

Case Four

You have just finished intubating a 67-year-old female in cardiac arrest. You have confirmed your endotracheal tube placement and have secured the tube using a commercially available device. Using the manikin and materials provided, describe and perform all airway maintenance procedures indicated by Massachusetts Protocols.

Case Five

A 31-year-old male patient was involved in a motorcycle accident. He does not respond verbally, is bleeding from facial injuries, and is combative while lying supine on the roadside. His vital signs are BP 88/P, P134, and R44. Using the manikin and materials provided, describe and perform all airway maintenance procedures indicated by Massachusetts Protocols.

Case Six

The mother of a three-year-old male patient called the ambulance because her child appeared markedly short of breath. On your arrival you find the child to be febrile, unresponsive to mom, in obvious respiratory distress with "gulping" or "gasping" respirations and noticeable peri-oral cyanosis. His abdomen is distended. His vital signs are P70, and R60. Using the manikin and materials provided, describe and perform all airway maintenance procedures indicated by Massachusetts Protocols.