

Curriculum For The LMA Supreme™

Course Description

This course is designed to provide instruction in a procedure for the use of the LMA Supreme™ by the EMT-Intermediate '99 and Paramedic.

Prerequisites

1. The EMT must be a certified EMT-Intermediate '99 or Paramedic, with the approval of the administrative medical director.
2. The EMT-Intermediate '99 or Paramedic student shall be enrolled in a certified ALS training program.

Methodology

The student shall receive up to 1.0 hour of lecture (Module One) and 1.0 hour of skills practice and validation (Module Two).

Instructor

The instructor must be approved by the administrative medical director and meet the following requirements:

- a. Would qualify, under A.C.C. R9-25-312(D), to serve as a preceptor for a course at the level of EMT certification held by the EMT; and
- b. Is authorized to perform the supplemental skill.

Equipment

The Following equipment is required for the course:

- Body substance isolation (BSI) equipment
- LMA Supreme™ with syringes, sizes 3.0, 4.0, 5.0
- Skills evaluation form
- Ambu Bag
- K-Y Jelly® or other water soluble lubricant
- LMA Supreme™ Instruction Manual
- Suction device, tubing

Course Competencies:

Upon completion of the course, the student shall be able to:

1. List the indications, contraindications, and side effects for the LMA Supreme™.
2. Identify the equipment required for LMA Supreme™
3. Describe and demonstrate body substance isolation (BSI) procedures required for use with the LMA Supreme™.

4. Describe and demonstrate procedures, including positioning the patient, for insertion of the LMA Supreme™.
5. Successfully insert the LMA Supreme™, ventilating the patient appropriately.
6. Describe documentation of LMA Supreme™ procedure and patient assessment.
7. Discuss the role of medical direction and oversight in the use of the LMA Supreme™.
8. Identify common problems, probable cause and corrective action for each identified problem.
9. Complete a practical skills evaluation with 80% competency.

COURSE OUTLINE

Module One: Lecture

I. Purpose and Description of the LMA Supreme™

- A. The LMA Supreme™ is used by an EMT-Paramedic or EMT-Intermediate '99 in compliance with on-line or off-line medical direction.
- B. The EMT-Paramedic or EMT-Intermediate '99 documents the application of the LMA Supreme™, patient assessment and response
- C. Placement of the LMA Supreme™ is unaffected by in-line manual immobilization or the presence of a hard neck collar.

II. Indication:

The management of the airway of an unconscious patient where endotracheal intubation is not available or has failed.

III. Contraindications:

- A. LMA Supreme™ is contraindicated in the patients where evidence of emesis is present.
- B. Patients with known hiatal hernia

- C. Patients with decreased pulmonary compliance, such as pulmonary fibrosis
 - D. Oral pharyngeal trauma
 - E. The patient's mouth will not open adequately to accommodate the LMA Supreme™
- IV. Precaution:
The LMA® does not protect the airway from effects of regurgitation and aspiration.
- V. Procedure:
- A. Demonstrate body substance isolation (BSI) procedures.
 - B. Assemble and prepare the equipment.
 - C. Preoxygenate the patient.
 - D. Test the device:
 - 1. Carefully insert a syringe into the valve port and deflate the cuff so the cuff walls are somewhat flattened against each other.
 - 2. Determine that there is no leak or uneven bulging. The balloon shape should be elliptical.
 - E. Prior to insertion of the LMA Supreme™, the cuff should be deflated so that it forms a smooth "spoon-shape" without wrinkles on the distal edge. The flat and smooth leading edge facilitates insertion and avoids contact with the epiglottis.
 - 1. Lubricate the posterior surface of the LMA Supreme™ just prior to insertion to prevent drying of the lubricant.
 - 2. Lubricate using a water-soluble lubricant such as K-Y® Jelly. Use of lidocaine-containing lubricants with the LMA® is not recommended for various reasons, the most important being that lidocaine can delay the return of the patient's protective reflexes prior to removal of the LMA®.
 - F. Insertion Technique
 - 1. Stand behind patient's head, hold the LMA Supreme™ by the connector end with the hollow side facing away and the distal end pointing downwards. With

the patients head and neck in a neutral position, press the tip of the cuff against the hard palate.

2. Swing the device inward with a circular motion, pressing against the contours of the hard and soft palate.
3. Press the cuff further into the mouth maintaining pressure against the palate.
4. Advance the LMA Supreme™ into the hypopharynx until resistance is felt.
5. Inflate the cuff with just enough air to obtain a seal. Never overinflate the cuff.

H. Ventilation

1. Connect the LMA Supreme™ to the bag and use gentle manual ventilation to inflate the lungs noting where whether there are any leaks. Auscultate the anterolateral neck for abnormal sounds.
2. Gentle bag ventilation technique, ventilating only with enough force to see the chest rise.
5. Leakages around the LMA Supreme, once it is positioned, suggest malposition, incorrect size, under or overinflation of the cuff. If the LMA Supreme™ is too small, the addition of more air is not the solution. The LMA Supreme™ should be removed, and a larger, more appropriately sized device should be placed. Also, The bite block should lie between the teeth.

I. Securing the LMA Supreme™

1. Secure the LMA Supreme™ to the patient's face with adhesive tape or a commercial grade tube holder.
2. Hold a length of adhesive tape horizontally by both ends, lay the middle transversely across the fixation tab and press both ends of the tape down onto each of the patient's maxillae; this presses the device inwards.

J. Removal of the LMA Supreme™

Indications: The patient shows signs of swallowing or airway problems persist, or ventilation is inadequate

1. Deflate the cuff and remove the LMA Supreme only when an effective swallowing reflex is present and when the patient can open the mouth on command.
2. Verify airway patency and respiratory depth
3. Perform oral suctioning as required

VI. Problems/Probable Cause/Corrective Action

A. Difficulty in negotiating the angle at the back of the tongue

1. The mask must be inserted by pressing cephalad on the hard palate and continuing this motion throughout the insertion maneuver. Otherwise, the tip may fold on itself or impact on an irregularity or swelling in the posterior pharynx, e.g., hypertrophied tonsils.
2. If the cuff fails to flatten or begins to curl over as it is advanced, it is necessary to withdraw the mask and reinsert it.
3. In case of tonsillary obstruction, a diagonal shift of the mask is often successful.
4. If difficulty persists, discontinue the procedure.

B. Leak around the cuff:

1. Check inflation volumes, etc....Remove and reinsert.Go up a size if leak continues

C. Malposition of the LMA®

1. Assess and observe for changes in tidal volume
2. Assess for a smooth, oval neck swelling extending below the thyroid cartilage. If absent, this may indicate anterior misplacement of the mask tip into the laryngeal inlet.

D. Unexpected regurgitation

1. Coughing or breathholding may be the first sign
2. Remove the LMA Supreme™
3. Suction the airway

- E. If any airway problems persist, or ventilation is inadequate, the LMA® should be removed.
- VII. Documentation
- A. Circumstances contributing to the decision for using the LMA Supreme™
 - B. Procedure, patient assessment, and outcome
 - C. An attempt was made without success

Module Two: Skills Practice/Validation

Approximate time: Up to 90 minutes

- I. Provided models manikins and equipment necessary to insert the LMA Supreme™. The student shall:
 - A. List the indications, contraindications and side effects of the LMA Supreme
 - B. Identify the equipment required
 - D. Describe and demonstrate body substance isolation (BSI) procedures required.
 - E. Describe and demonstrate Insertion technique
 - F. Describe and demonstrate documentation procedures.
 - G. Identify common problems, probable cause and corrective action for each identified problem.
- II. The student shall demonstrate minimum score accuracy on a skills evaluation form completed by the instructor.
- III. An instructor shall provide remediation and retesting as necessary.

Proposed Skills Evaluation Laryngeal Mask Airway (LMA) ®

Student's Name: _____

Date: _____ Attempt# _____

Evaluator: _____

Criteria	Points Possible	Points Attained
Describes and demonstrates BSI procedures	1	
Identifies need for the procedure: Assesses ABC's; determines inadequacy of ventilation	2	
Identifies the equipment required for insertion of the LMA Supreme™	1	
Position the patient: Head in neutral position, slight sniffing position may be necessary	2	
Procedure: <ul style="list-style-type: none"> ●Pre-oxygenate the patient ●Test the device ●Lubricate the device ●Insert the LMA Supreme™ ●Ventilate ●Assess for leak ●Secure the LMA Supreme™ 	10	
Identifies common problems , probable cause and corrective action for each	4	
Reassess ventilation	1	
Describes and demonstrates removal of the LMA Supreme™	1	
Documents the procedure on an encounter form	1	
Total	23	

Critical Criteria

(Failure to meet any of the critical criteria constitutes failure. The student must be remediated prior to retesting.) The student has three (3) opportunities to successfully complete the test. If a student fails to achieve a passing grade after three (3) opportunities, the student must repeat the entire course.

____ **Fails to properly demonstrate body substance isolation procedures**

___ **Fails to properly demonstrate the correct method for insertion of the LMA Supreme™**

___ **Fails to recognize problems with insertion of the LMA Supreme™**

___ **Fails to successfully ventilate the patient**

___ **Fails to identify corrective action for each recognized problem**