



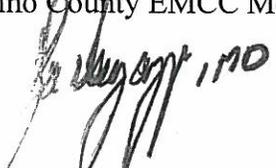
# Inland Counties Emergency Medical Agency

Serving San Bernardino, Inyo, and Mono Counties

Virginia Hastings, Executive Director  
Reza Vaezazizi, M.D., Medical Director

**DATE:** November 6, 2009

**TO:** ALS, BLS, EMS Aircraft Provider Chief's, CEO's and EMS/Paramedic Coordinators  
Hospital CEO's, ED Directors, Nurse Managers and PLN's  
EMS Training Programs and Continuing Education Providers  
Inyo, Mono and San Bernardino County EMCC Members  
Other Interested Parties

**FROM:** Reza Vaezazizi, MD 

**SUBJECT: KING AIRWAY - ALS IMPLEMENTATION AND  
BLS REQUEST FOR OPTIONAL SCOPE**

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Effective January 1, 2010 use of the King Airway will become mandatory for all ALS providers and the Esophageal Tracheal Airway Device (ETAD/CombiTube) will no longer be a permitted airway within the ICEMA region. The adult and pediatric protocols for the King Airway need to be reviewed and made available to everyone. These advanced notices and reminders are meant to allow providers adequate time to make adjustments for smooth and timely implementation of this protocol change.

BLS providers who wish to use the King Airway and those providers currently approved for use of the ETAD (Combitube) must apply for approval as a King Airway optional scope provider. Please complete the attached Specialty Provider application and return to ICEMA no later than November 25, 2009.

As outlined in EMT regulations, BLS providers who are approved for this optional scope program will be required to provide proof of training prior to program implementation. Attached you will find an outline for the training program and the King Airway protocols.

Please contact Sherri Shimshy, RN at (909) 388-5816 or [sshimshy@cao.sbcounty.gov](mailto:sshimshy@cao.sbcounty.gov) if you have any questions or concerns.

cc: Virginia Hastings, Executive Director ICEMA  
Iris Pena, RN, EMS Nurse Specialist, ICEMA  
Sherri Shimshy, RN, EMS Nurse Specialist, ICEMA

RV/DW/mae



# Inland Counties Emergency Medical Agency

*Serving San Bernardino, Inyo, and Mono Counties*

*Virginia Hastings, Executive Director  
Reza Vaezazizi, M.D., Medical Director*

## BLS KING AIRWAY TRAINING

Approved BLS King Airway Providers must complete the following training and provide documentation to ICEMA prior to implementation of their program:

1. Training in the use of King Airway device shall consist of not less than five (5) hours to result in the EMT being competent in the use of the device and airway control. Included in the above training hours shall be the following topics and skills:
  - (A) Anatomy and physiology of the respiratory system.
  - (B) Assessment of the respiratory system.
  - (C) Review of basic airway management techniques, which includes manual and mechanical.
  - (D) The role of the King Airway device in the sequence of airway control.
  - (E) Indications and contraindications of the King Airway device.
  - (F) The role of pre-oxygenation in preparation for the King Airway device.
  - (G) King Airway device insertion and assessment of placement.
  - (H) Methods for prevention of basic skills deterioration.
  - (I) Alternatives to the King Airway device.
2. At the completion of training, employee shall complete a competency-based written and skills examination for airway management which shall include the use of basic airway equipment and techniques and use of the King Airway device.
3. Every six (6) months, employee shall demonstrate skills competency in use of the King Airway device. Proof of competency must be maintained by the provider and available upon request.



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## KING AIRWAY DEVICE (PERILARYNGEAL) - ADULT

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### FIELD ASSESSMENT/TREATMENT INDICATORS

1. Use of the King Airway adjunct may be performed only on those patients who meet **ALL** of the following criteria:
  - a. Unresponsive and apneic (less than 6 breaths per minute).
  - b. No gag reflex.
  - c. Anyone over four (4) feet in height
    - I. 4-5 feet: Size 3 (connector color: yellow)
    - II. 5-6 feet: Size 4 (connector color: red)
    - III. 6 feet and over: Size 5 (connector color: purple)

### ADDITIONAL CONSIDERATIONS

1. BVM management not adequate or effective.
2. A King Airway adjunct should not be removed unless there is a malfunction.
3. Medications may **NOT** be given via the King Airway.

### CONTRAINDICATIONS

1. Conscious patients with an intact gag reflex.
2. Known ingestion of caustic substances.
3. Suspected foreign body airway obstruction (FBAO).
4. Facial and/or esophageal trauma.
5. Patients with known esophageal disease (cancer, varices, surgery, etc.).

## PROCEDURE

1. Using the information provided, choose the correct KING LTS-D size based on patient height.
2. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs (size 3 – 60 ml; size 4 – 80 ml; size 5 – 90 ml). Prior to insertion, disconnect Valve Actuator from Inflation Valve and remove all air from both cuffs.
3. Apply a water-based lubricant to the beveled distal tip and posterior aspect of the tube taking care to avoid introduction of lubricant in or near the ventilatory openings.
4. Have a spare KING LTS-D ready and prepared for immediate use.
5. Pre-oxygenate.
6. Position the head. (The ideal head position for insertion of the KING LTS-D is the “sniffing position”.)
7. Hold the KING LTS-D at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift.
8. With the KING LTS-D rotated laterally 45-90°, introduce tip into mouth and advance behind base of tongue.
9. Rotate the tube back to the midline as the tip reaches the posterior wall of the pharynx.
10. Without exerting excessive force, advance KING LTS-D until base of connector is aligned with teeth or gums.
11. Holding the KLT 900 Cuff Pressure Gauge in non-dominant hand, inflate cuffs of the KING LTS-D to 60 cm H<sub>2</sub>O. If a cuff pressure gauge is not available and a syringe is being used to inflate the KING LTS-D, inflate cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed (just seal volume).
12. Attach the breathing circuit to the 15 mm connector of the KING LTS-D. While gently bagging the patient to assess ventilation, simultaneously withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).

- 13. Reference marks are provided at the proximal end of the KING LTS-D which when aligned with the upper teeth give an indication of the depth of insertion.
- 14. Confirm proper position by auscultation, chest movement and/or verification of CO2 by capnography.
- 15. Readjust cuff inflation to 60 cm H2O (or to just seal volume).
- 16. Secure KING LTS-D to patient.

**DOCUMENTATION**

In the event the receiving physician discovers the device is improperly placed, an incident Report must be completed by the receiving hospital and forwarded to ICEMA within 24 hours of the incident. Forms are available as part of the protocol manual and on the ICEMA website.

***APPROVED***

SIGNATURES ON FILE AT ICEMA

|                        |      |                          |      |
|------------------------|------|--------------------------|------|
| _____                  | Date | _____                    | Date |
| ICEMA Medical Director |      | ICEMA Executive Director |      |

|                            |      |                            |      |
|----------------------------|------|----------------------------|------|
| _____                      | Date | _____                      | Date |
| Inyo County Health Officer |      | Mono County Health Officer |      |

|                                      |      |
|--------------------------------------|------|
| _____                                | Date |
| San Bernardino County Health Officer |      |



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## KING AIRWAY DEVICE (PERILARYNGEAL) - PEDIATRIC

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### FIELD ASSESSMENT/TREATMENT INDICATORS

1. Use of the King Airway adjunct may be performed only on those patients who meet **ALL** of the following criteria:
  - a. Unresponsive and apneic (less than 6 per minute).
  - b. No gag reflex.
  - c. Pediatric patients meeting the following criteria:
    - I. 35-45 inches or 12-25 kg: Size 2 (connector color: green)
    - II. 41-51 inches or 25-35 kg: Size 2.5 (connector color: orange).

### ADDITIONAL CONSIDERATIONS

1. BVM management not adequate or effective.
2. A King Airway adjunct should not be removed unless there is a malfunction.
3. Medications may **NOT** be given via the King Airway.

### CONTRAINDICATIONS

1. Conscious patients with an intact gag reflex.
2. Known ingestion of caustic substances.
3. Suspected foreign body airway obstruction (FBAO).
4. Facial and/or esophageal trauma.
5. Patients with known esophageal disease (cancer, varices, surgery, etc.).

**PROCEDURE**

1. Using the information provided, choose the correct KING LT size based on patient height.
2. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs (size 2: 25–35 ml; size 2.5: 30-40 ml). Prior to insertion, disconnect Valve Actuator from Inflation Valve and remove all air from both cuffs.
3. Apply a water-based lubricant to the beveled distal tip and posterior aspect of the tube taking care to avoid introduction of lubricant in or near the ventilatory openings.
4. Have a spare KING LT ready and prepared for immediate use.
5. Pre-oxygenate.
6. Position the head. (The ideal head position for insertion of the KING LT is the “sniffing position.”)
7. Hold the KING LT at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift.
8. With the KING LT rotated laterally 45-90°, introduce tip into mouth and advance behind base of tongue.
9. Rotate the tube back to the midline as the tip reaches the posterior wall of the pharynx.
10. Without exerting excessive force, advance KING LT until base of connector is aligned with teeth or gums.
11. Holding the KLT 900 Cuff Pressure Gauge in non-dominant hand, inflate cuffs of the KING LT to 60 cm H<sub>2</sub>O. If a cuff pressure gauge is not available and a syringe is being used to inflate the KING LT, inflate cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed (just seal volume).
12. Attach the breathing circuit to the 15 mm connector of the KING LT. While gently bagging the patient to assess ventilation, simultaneously withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).

- 13. Reference marks are provided at the proximal end of the KING LT which when aligned with the upper teeth give an indication of the depth of insertion.
- 14. Confirm proper position by auscultation, chest movement and/or verification of CO2 by capnography.
- 15. Readjust cuff inflation to 60 cm H2O (or to just seal volume).
- 16. Secure KING LT to patient.

**DOCUMENTATION**

In the event the receiving physician discovers the device is improperly placed, attached is an Incident Report that must be filled out and forwarded to ICEMA within one (1) week by the receiving hospital.

***APPROVED***

SIGNATURES ON FILE AT ICEMA

|                        |      |                          |      |
|------------------------|------|--------------------------|------|
| _____                  | Date | _____                    | Date |
| ICEMA Medical Director |      | ICEMA Executive Director |      |

|                            |      |                            |      |
|----------------------------|------|----------------------------|------|
| _____                      | Date | _____                      | Date |
| Inyo County Health Officer |      | Mono County Health Officer |      |

|                                      |      |
|--------------------------------------|------|
| _____                                | Date |
| San Bernardino County Health Officer |      |