

Joint Theater Trauma System Clinical Practice Guideline

TRAUMA AIRWAY MANAGEMENT

Original Release/Approval	18 Dec 2004	Note: This CPG requires an annual review.		
Reviewed:	Nov 2008	Approved:	26 Nov 2008	
Supersedes:	Trauma Airway Management, updated Apr 2008			

1. Goal. To establish guidance for management of trauma airway emergencies by personnel assigned or attached to CENTCOM medical facilities who are involved in the management of patients.

2. Background. Airway management is often the first step in the resuscitation of the severely injured trauma patient. Recognition of “difficult airways, knowledge of airway management algorithms and rescue devices will allow for a pre-planned strategy for first pass success

3. Responsibility.

a. All Health Care Providers will:

- 1) become familiar with the guidelines for performance of trauma airway management.
- 2) become familiar with the guidelines for performance of rapid sequence intubation.
- 3) become familiar with alternative airway devices mentioned in guidelines for trauma airway management.
- 4) provide feedback on these guidelines and suggest CPG changes to the JTTS.

b. The Chief, Emergency/Anesthesia/Surgery at each Level III facility will coordinate with the Theatre Trauma Coordinator on the appropriateness of the guidelines being used and provide input for updates on an as needed basis.

c. The Theater Trauma Director will:

- 1) Be the subject matter expert on the guidelines to be used in the entire OIF theatre for Management of trauma airway management.
- 2) Update the guidelines on an as-needed basis.

4. References.

- ¹ Levitan, R. Guide to Intubation and Practical Emergency Airway Management

Approved by CENTCOM JTTS Director, JTS Director
and Deputy Director and CENTCOM SG

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November 2008

APPENDIX A

TRAUMA AIRWAY MANAGEMENT	
AIRWAY ASSESSMENT	
<ul style="list-style-type: none"> ▪ Evaluate patient for indicators of potentially difficult direct laryngoscopy and/or mask ventilation ▪ Consider an “awake” intubation technique (e.g.; blind nasal) or maintenance of spontaneous breathing during ▪ intubation if difficulty anticipated ▪ Recall that the neutral position (“C-spine stabilization”) degrades the laryngoscopic view ▪ Remember that not all patients require medication administration in order to facilitate intubation 	
RAPID SEQUENCE INDUCTION (RSI) AND INTUBATION PATHWAY	
1. Confirm equipment availability and function <ul style="list-style-type: none"> – IV, suction, self inflating bag and mask, laryngoscope, ETT with stylet, oral & nasal airways, drugs, CO₂ detector, monitors backup plan equipment 2. Pre-Oxygenate (Denitrogenate) the lungs <ul style="list-style-type: none"> – Prolongs tolerance of apneic period – ≈ 3 minutes of tidal volume breathing best <ul style="list-style-type: none"> ▪ Good mask seal is imperative – Order of efficacy: Jackson-Reese > resuscitation bag > non-rebreather mask 3. Initiate cervical spine stabilization 4. Remove front of cervical collar 5. Apply cricoid pressure simultaneous w/meds <ul style="list-style-type: none"> – No release until intubation is confirmed 6. Administer medications <ul style="list-style-type: none"> – True RSI requires <i>simultaneous administration</i> of sedative and paralytic <p style="text-align: center;"><u>Sedative/hypnotic</u></p> Etomidate (First Line) <ul style="list-style-type: none"> ▪ 0.3 - 0.4 mg/kg IV (“stable” patient) ▪ 0.1 - 0.2 mg/kg IV (“unstable” patient) Thiopental (Alternative) - Will cause profound hypotension in pt’s in shock/“unstable” pt’s) <ul style="list-style-type: none"> ▪ 3-5 mg/kg 	<p style="text-align: center;"><u>Paralytic</u></p> Succinylcholine – 1.5 mg/KG IV or Rocuronium – 1.2 mg/kg (Will cause prolonged paralysis)
	7. Perform skillful laryngoscopy following fasciculations seen with succinylcholine or 45-60 seconds after administration of rocuronium.
	8. If laryngoscopic view is poor: <ul style="list-style-type: none"> – Apply Backward, Upward, & Rightward laryngeal Pressure (“BURP” maneuver) – Consider use of Eshmann stylet
	9. Confirm tracheal intubation <ul style="list-style-type: none"> – Easy chest rise, lack of gastric insufflation, equal axillary breath sounds, & “fog” in ETT – Consistent, exhaled CO₂ (Mandatory) – Esophageal detector bulb or fiberoptic confirmation during cardiac arrest
	<u>Recommendations for Head Trauma Patients</u> <ul style="list-style-type: none"> ▪ Provide mild hyperventilation/hypocapnia prior to medication administration ▪ Consider administration of a defasciculating dose of non-depolarizing paralytic: <ul style="list-style-type: none"> ○ Vecuronium 0.01 mg/kg ▪ Administer medications that may blunt the response to laryngoscopy 1 – 3 minutes prior to induction <ul style="list-style-type: none"> ○ Lidocaine 1.5 mg/kg IV ○ Fentanyl up to 3 mcg/kg IV ▪ Aggressively avoid Hypotension and/or Hypoxemia in head trauma patients

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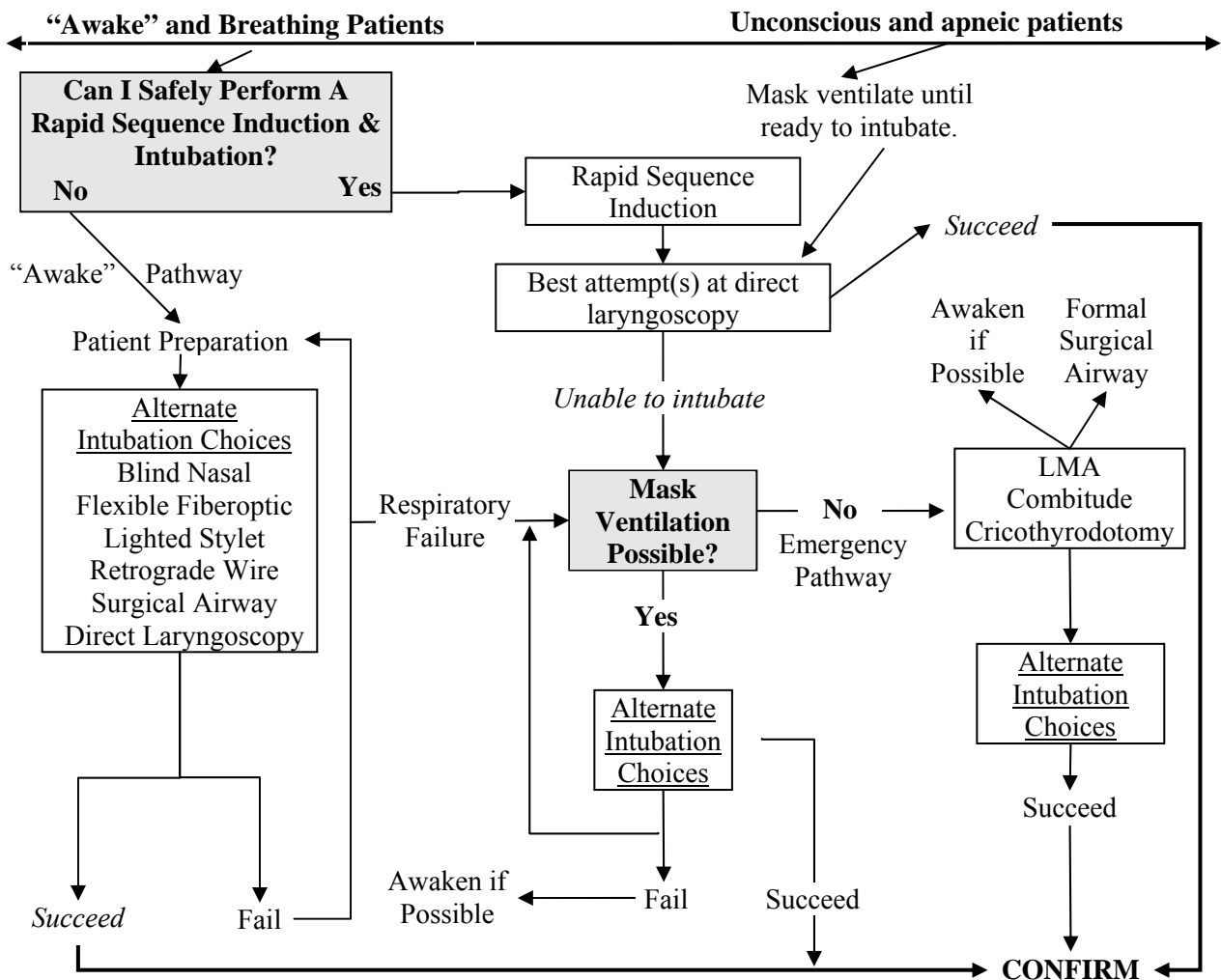
TRAUMA AIRWAY MANAGEMENT		
UNABLE TO INTUBATE ... CAN YOU MASK VENTILATE?		
Mask Ventilation Pearls <ul style="list-style-type: none">▪ Skilled operator▪ Good seal▪ Jaw thrust▪ Oral airway▪ Nasal airway (s)▪ <i>Two person mask ventilation</i>	YES	<ul style="list-style-type: none">▪ Improve position, change blade/operator, “BURP” maneuver, Eshmann stylet▪ Attempt alternate technique: Fiberoptic, Light wand, Intubating LMA▪ Consider waking patient up (resumption of spontaneous breathing)▪ <i>More than ≈ 3 attempts at intubation may abolish your ability to mask ventilate due to edema caused by laryngoscopy</i>
	NO	<ul style="list-style-type: none">▪ Emergency pathway...seconds matter.▪ Attempt laryngeal mask airway (LMA), surgical or percutaneous cricothyroidotomy, or Combitube▪ <i>Do not delay surgical airway</i> if alternate methods are problematic

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APPENDIX B



Two-Person Mask Ventilation



Laryngeal Manipulation to Improve Laryngoscopic View

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