

# Pre-hospital Advanced Airway Management in the Central Denmark Region

## 1) Background

Pre-hospital critical care team	<input type="checkbox"/> Aarhus	<input type="checkbox"/> Randers
	<input type="checkbox"/> Horsens	<input type="checkbox"/> Grenå
	<input type="checkbox"/> Silkeborg	<input type="checkbox"/> Lemvig
	<input type="checkbox"/> Viborg	<input type="checkbox"/> Karup
Attending doctor a consultant	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Doctor's experience in pre-hospital critical care (years)		

## 2) Alarm data

Date	_____ (dd.mm.yy)
Time of the alarm	_____ : _____
Time on scene, EMS	_____ : _____
Time on scene, critical care team	_____ : _____
Time at hospital	_____ : _____

## 3) Patient data:

Social security number	_____
ASA- score (prior to current event)	_____
Co-morbidity	_____

## 4) Patient category (more than one alternative may be checked)

Blunt trauma	<input type="checkbox"/> Traumatic brain injury <input type="checkbox"/> Multitrauma <input type="checkbox"/> Strangulation <input type="checkbox"/> Burns <input type="checkbox"/> Other blunt trauma
Penetrating trauma	<input type="checkbox"/>
Non-trauma patient	<input type="checkbox"/> Cardiac arrest (CA) <input type="checkbox"/> Cardiological disease (non-CA) <input type="checkbox"/> Asthma / COPD <input type="checkbox"/> ENT <input type="checkbox"/> SAH / stroke <input type="checkbox"/> Other: _____

### 5) First registered vital signs

Respiratory rate	_____	/min	
SpO <sub>2</sub>	_____	%	
	With supplementary O <sub>2</sub>		<input type="checkbox"/>
	Without supplementary O <sub>2</sub>		<input type="checkbox"/>
Heart rate	_____	/min	
Systolic blood pressure	_____	mmHg	
Glasgow Coma Scale Score	_____		

### 6) Indication for advanced airway management (more than one alternative may be checked)

<input type="checkbox"/> Reduced level of consciousness
<input type="checkbox"/> Hypoxia
<input type="checkbox"/> Ineffective ventilation
<input type="checkbox"/> Existing airway obstruction
<input type="checkbox"/> Impending airway obstruction
<input type="checkbox"/> Anaesthesia because of combative or uncooperative patient
<input type="checkbox"/> Anaesthesia to reduce pain or stress
<input type="checkbox"/> Cardiac arrest
<input type="checkbox"/> Other (please specify) _____

### 7) Airway evaluation (more than one alternative may be checked)

<input type="checkbox"/> Prior difficult airway management
<input type="checkbox"/> Severe obesity
<input type="checkbox"/> Malampati score > 2
<input type="checkbox"/> Small mouth (< 4 cm in adults)
<input type="checkbox"/> Under-bite impossible
<input type="checkbox"/> Reduced neck mobility (< 90 grader) including in-line stabilisation
<input type="checkbox"/> Short thyo-mental distance (< 3 fingers)
<input type="checkbox"/> Significant airway trauma
<input type="checkbox"/> Other (please specify) _____
<input type="checkbox"/> Airway evaluation not performed

**8) "Plan A" for airway management** (only one check, please)

Spontaneous respiration	<input type="checkbox"/> No assistance (with / without supplementary O <sub>2</sub> ) <input type="checkbox"/> With chin-lift or jaw-trust <input type="checkbox"/> With oropharyngeal- / nasopharyngeal airway
Bag-mask-ventilation	<input type="checkbox"/> Without adjuncts <input type="checkbox"/> With oropharyngeal- / nasopharyngeal airway
Laryngeal mask	<input type="checkbox"/> Standard <input type="checkbox"/> Intubation laryngeal mask ("Fasttrach")
Oral intubation	<input type="checkbox"/> Standard laryngoscopy without stylet <input type="checkbox"/> Standard laryngoscopy with stylet <input type="checkbox"/> Standard laryngoscopy with "Gum - Elastic - Bougie" <input type="checkbox"/> Airtraq
Other	<input type="checkbox"/> Nasal intubation <input type="checkbox"/> Surgical airway

**9) Best Cormack – Lehane – score** (Grade 1-4) \_\_\_\_\_

**10) Numbers of airway management attempts** \_\_\_\_\_

**11) Number of airway management devices used** \_\_\_\_\_

**12) Final method used for airway management** (only one check, please)

Spontaneous respiration	<input type="checkbox"/> No assistance (with / without supplementary O <sub>2</sub> ) <input type="checkbox"/> With chin-lift or jaw-trust <input type="checkbox"/> With oropharyngeal- / nasopharyngeal airway
Bag-mask-ventilation	<input type="checkbox"/> Without adjuncts <input type="checkbox"/> With oropharyngeal- / nasopharyngeal airway
Laryngeal mask	<input type="checkbox"/> Standard <input type="checkbox"/> Intubation laryngeal mask ("Fasttrach")
Oral intubation	<input type="checkbox"/> Standard laryngoscopy without stylet <input type="checkbox"/> Standard laryngoscopy with stylet <input type="checkbox"/> Standard laryngoscopy with "Gum - Elastic - Bougie" <input type="checkbox"/> Airtraq
Other	<input type="checkbox"/> Nasal intubation <input type="checkbox"/> Surgical airway

**13) Post- interventional ventilations mode** (only one check, please)

<input type="checkbox"/> Spontaneous ventilation	
<input type="checkbox"/> Controlled ventilation	<input type="checkbox"/> Manual ventilation <input type="checkbox"/> Automated ventilator <input type="checkbox"/> Both the above
<input type="checkbox"/> Mixed spontaneous / controlled ventilation	

**14) Drugs used during airway management** (more than one alternative may be checked)

<input type="checkbox"/> Thiopental
<input type="checkbox"/> Propofol
<input type="checkbox"/> Midazolam
<input type="checkbox"/> S-Ketamine
<input type="checkbox"/> Fentanyl
<input type="checkbox"/> Alfentanil
<input type="checkbox"/> Morphine
<input type="checkbox"/> Suxametonium
<input type="checkbox"/> Rocuronium
<input type="checkbox"/> Ephedrine
<input type="checkbox"/> Lidocain
<input type="checkbox"/> Other (please specify) _____
<input type="checkbox"/> None

**15) Complications related to airway management** (more than one alternative may be checked)

- None
- Surgical airway necessary
- Accidental intubation of the oesophagus
- Accidental intubation of right main stem bronchus
- Dental trauma
- Vomiting
- Aspiration
- Hypoxia ( $\text{SpO}_2 < 90\%$ )
- Bradycardia (heart rate  $< 60/\text{min.}$ )
- Hypotension (systolic blood pressure  $< 90 \text{ mmHg}$ )
- Other (please specify) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**16) First post-intervention vital signs**

ETCO<sub>2</sub> \_\_\_\_\_ kPa  
SpO<sub>2</sub> \_\_\_\_\_ %  
Respiratory rate \_\_\_\_\_ /min  
Heart rate \_\_\_\_\_ /min  
Systolic blood pressure \_\_\_\_\_ mmHg

**17) Vital signs upon arrival at the emergency department**

ETCO<sub>2</sub> \_\_\_\_\_ kPa  
SpO<sub>2</sub> \_\_\_\_\_ %  
Respiratory rate \_\_\_\_\_ /min  
Heart rate \_\_\_\_\_ /min  
Systolic blood pressure \_\_\_\_\_ mmHg

**18) Pre-hospital outcome**

- Pre-hospital death (declared dead by pre-hospital critical care team physician)
- Patient alive upon arrival at the emergency department (including patients with ongoing CPR)

**19) Pre-hospital advanced airway management not performed**

Did you consider performing pre-hospital advanced airway management but decided against it?

- Yes
- No

**If yes**, what was the reason? (more than one alternative may be checked)

- Expected difficult airway management
- Difficult access to the patient
- Short distances to the emergency department
- Patient's condition
- Patient's co-morbidity
- Lack of training / experience
- Lack of appropriate equipment
- Lack of necessary assistance
- Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**20) Comments:**

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**Thank you very much for you collaboration!**