**MANAGEMENT OF THE AIRWAY**

**PURPOSE**
- Provide and maintain a secure airway
- Ensure adequate oxygenation and ventilation
- Prevent aspiration
- Protect the cervical spine

**INDICATION**
Patients at risk:
- Head injury
- Direct airway injury
- Shock
- Facial fractures
- Thoracic injury
- Drugs/alcohol

**RECOGNITION**

**IMMEDIATE INTERVENTION**
- Apnea
- Airway obstruction
  - Partial
  - Complete

**URGENT INTERVENTION**
- Respiratory distress
  - RR >30, <6
  - Use of accessory muscles
  - Nasal flaring/retractions
  - Flail chest/paradoxic motion
  - Combative patient
- Need for urgent operation

**ALTERNATIVE MANAGEMENT TECHNIQUES**

**PEDIATRIC CONSIDERATIONS**
- Give atropine for bradycardia
- Craniofacial disproportion: large head, small chin
- Occipital cervical flexion
- Infants: obligate nasal breathers
- Larynx: anterior caudal angle
- Trachea: short

- Direct placement of oral airway
- Orotracheal intubation preferred (under age 9)
- Size endotracheal tube to child’s small finger/external nares
- No cricothyroidotomy (under age 12)
- Uncuffed endotracheal tubes (under age 9)

**IMMEDIATE INTERVENTION**

**SIMPLE**
- Chin lift
- Jaw thrust
- Oropharyngeal airway
- Nasopharyngeal airway

**DEFINITIVE**
- Oral: tracheal intubation
- Nasal: requires adequate visualization; contraindicated in midface/basilar skull fractures

**PRODUCTS ADJUNCTS TO TRACHEAL INTUBATION/RAPID SEQUENCE**

<table>
<thead>
<tr>
<th>AGENTS</th>
<th>DOSE</th>
<th>REVERSAL</th>
<th>DOSE</th>
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<tbody>
<tr>
<td>Etomidate</td>
<td>0.3 mg/kg IV</td>
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<tr>
<td>Midazolam</td>
<td>0.02–0.1 mg/kg IV</td>
<td>Flumazenil</td>
<td>0.2 mg IV</td>
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<tr>
<td>Succinylcholine</td>
<td>0.6–1.5 mg/kg IV</td>
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</table>
ALTERNATIVE MANAGEMENT TECHNIQUES

Surgical Airway

ANATOMY

NEEDLE CRICOTHYROIDOTOMY

Jet insufflation
O<sub>2</sub> 15 L/min
Maintains oxygenation

SURGICAL CRICOTHYROIDOTOMY

ANATOMY

#6 tube (tracheostomy or endotracheal)
Age >12
Caution: Laryngeal fracture

Technique

1. Stabilize the larynx, make vertical/horizontal skin incision
2. Incise cricothyroid membrane
3. Enlarge the opening
4. Insert the tube into the opening

Laryngeal Mask Airway

- Difficult airway
- Unconscious or sedated patients
- Spontaneous or controlled ventilation
- Experienced anesthesia personnel

Pediatric Considerations

- Give atropine for bradycardia
- Craniofacial disproportion: large head, small chin
- Occipital cervical flexion
- Infants: obligate nasal breathers
- Larynx: anterior caudal angle
- Trachea: short
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