

## 2.26 RAPID SEQUENCE INTUBATION

### ABSOLUTE ONLINE

**This procedure requires two advanced providers (EMT-P or EMT-CC) authorized to perform endotracheal intubation and administer medications. One provider must be a paramedic who has been credentialed to perform this procedure by the System Medical Director.**

Prior to starting, consider proximity to destination hospital and weigh the delay in transport caused by performing the RSI procedure. If the patient is able to be effectively ventilated and oxygenated by BLS airway techniques and there is a short transport time to an appropriate ED, then RSI should not be performed.

#### **Indications:**

1. Control of the airway in patients with potential or actual airway compromise
2. Patient with decreased sensorium (GCS of 8 or less)
3. Combativeness that threatens airway or spinal cord stability
4. Smoke inhalation with tracheal/airway compromise
5. Facilitation of therapeutic ventilations

#### **Contraindications:**

1. Patient <16 years of age or <40 kg
2. Obvious facial, neck, and/or spinal deformity that would prevent establishing an airway
3. Full or significant partial thickness burns greater than 48 hours
4. Paralysis from spine injury (> 48 hours)
5. Degenerative neurological diseases (ALS, muscular dystrophy, myasthenia gravis, etc.)
6. End-stage renal disease requiring dialysis (relative)

#### **Technique:**

Prepare and assemble required equipment

1. Working suction unit with Yankauer tip attached
2. Endotracheal tube(s) with stylet inserted
3. Bougie (tracheal tube introducer) available
4. Patent IV/IO site (two preferred)
5. Laryngoscope with blade(s) and functioning light
6. Cardiac Monitor applied
7. Pulse Oximeter applied
8. Digital end tidal CO<sub>2</sub> monitor (capnometry or capnography, capnography preferred)
9. Bag-Value-Mask device connected to oxygen source
10. Surgical airway set present and close by
11. Alternative airway device present and close by
12. Medications prepared, syringes labeled
13. Cloth adhesive tape 1" or commercial tube holder device

#### **Pre-oxygenate the patient with 100% oxygen:**

1. Adequately breathing patient via non-rebreather mask for 1 minute or a hypopneic/apneic patient with a bag-valve-mask and Sellick maneuver for minimum of 1 minute.
2. Evaluate for a difficult airway. If difficult, consider deferring RSI.

#### **Pre-treat:**

1. Signs or symptoms of symptomatic bradycardias: consider Atropine 0.5 rapid IV/IO push
2. Lidocaine (Xylocaine) 1.5 mg/kg IV/IO: consider when elevated intracranial pressure is suspected

#### **Induction:**

1. Etomidate (Amidate) 0.3 mg/kg IV/IO push

**Protocol continued on next page**

## 2.26 RAPID SEQUENCE INTUBATION, (continued)

### Paralysis:

1. To be given immediately after sedative: Succinylcholine (Anectine) 1.5 mg/kg IV/IO push
2. A second dose of Succinylcholine (Anectine) 0.5 mg/kg IV/IO push may be given if paralysis has not been achieved after 3 minutes

### Intubation:

1. Remove the cervical collar if in place while providing in-line manual immobilization/stabilization of head and neck
2. If not already done, perform Sellick Maneuver
3. Check for adequate neuromuscular blockage by relaxation of jaw muscles
4. Perform endotracheal intubation maintaining appropriate spinal stabilization and Sellick maneuver
5. If unable to intubate during the two attempts, stop and evaluate. Options include:
  - Repeat Neuromuscular blockade (once) if needed
  - BLS airway with suctioning
  - Use of tracheal tube introducer
  - Use of approved alternate airway device
  - Surgical cricothyrotomy
6. Once intubation is complete, inflate the cuff with enough air to ensure adequate seal by checking the cuff bladder. Confirm ET placement by auscultation of the chest for bilateral breath sounds and auscultation of the abdomen for absence of gastric sounds. Use digital capnometry device (capnography preferred) to confirm placement and monitor CO<sub>2</sub> along with pulse oximetry to monitor oxygenation.
7. Properly secure tube.
8. Ventilate the patient using Bag-Valve device or transport ventilator as appropriate. Rate of ventilation should be determined based on capnometry and oximetry readings to avoid hyperventilation and respiratory alkalosis. Target EtCO<sub>2</sub> should be 38-42 mmHg.

### Maintain Sedation/Anesthesia:

Etomidate 0.3 mg/kg IV/IO push. No repeat dose.

**OR**

Use with caution in patients with systolic blood pressure <90 mm:

Midazolam (Versed) 2.5 mg IV/IO (If available, repeat dose with medical control authorization)

**OR**

Diazepam (Valium) 5 mg IV/IO slowly (Repeat dose with medical control authorization)

### Maintain Analgesia:

Use with caution in patients with systolic blood pressure <90 mm.

Morphine 5 mg slow IV/IO (Repeat dose with medical control authorization)

### Maintain paralysis, if necessary:

(Must use sedation and analgesia in conjunction with paralysis)

Vecuronium (Norcuron) 0.1 mg/kg IV push once

Documentation and Quality Assurance: Quality documentation is as important as successfully intubating the patient. See the RSI Policies and Procedures document and follow all components of that document.