

MEDICAL EMERGENCIES
DIFFICULT AIRWAY – RAPID SEQUENCE INTUBATION

P EMT – P P

CRITERIA

- *SPO2 < 90% while on high flow O2
- *Respiratory Rate < 10 or > 32 BPM
- * Partial airway obstruction from blood/secretions or trauma, or GCS of 8 or less
- Respiratory exhaustion or inevitable loss of the airway

RESTRICTION
YOU MUST BE APPROVED AND TRAINED IN RAPID SEQUENCE INTUBATION TO INITIATE THIS PROCEDURE

UNIVERSAL PATIENT CARE PROTOCOL

Support ventilation with BVM using OPA or NPA as necessary

Obtain IV Access

Attempt Intubation
 Successful ??

Confirm placement
 maintain Airway and Ventilatory support

If patient is lethargic, in respiratory distress, has a gag reflex, is combative, alert, or otherwise unable to intubate.
 Proceed to Rapid Sequence Intubation

Suspected Increased Intracranial Pressure

Consider **Lidocaine 1 mg/kg** as adjunct medication when intubating patients with suspected increased intracranial pressure
(Administer before Etomidate)

Administer - **Etomidate (Amidate) - 0.3 mg/kg IVP**
 Unless hemodynamically unstable or systolic BP < 90

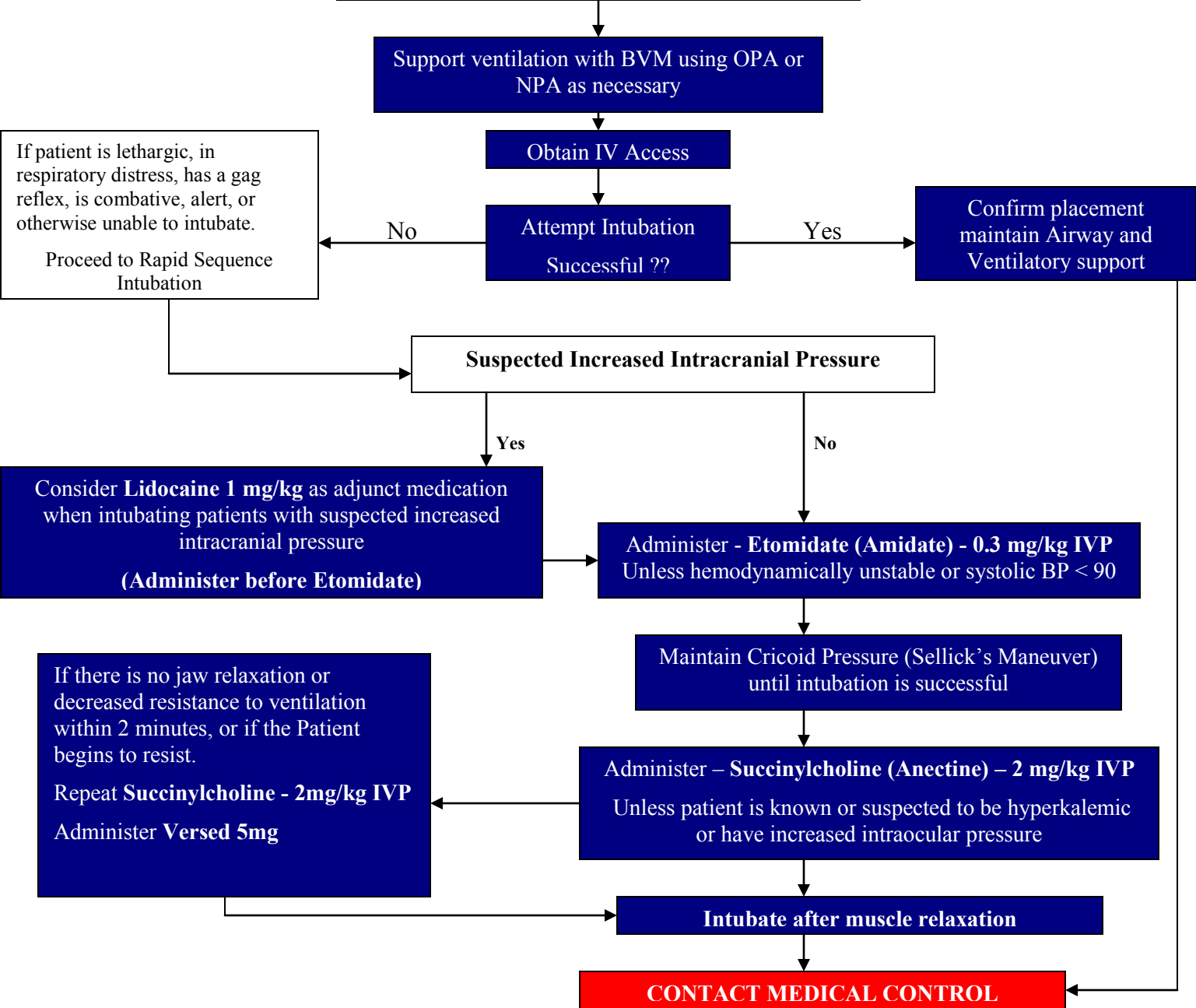
Maintain Cricoid Pressure (Sellick's Maneuver) until intubation is successful

Administer – **Succinylcholine (Anectine) – 2 mg/kg IVP**
 Unless patient is known or suspected to be hyperkalemic or have increased intraocular pressure

If there is no jaw relaxation or decreased resistance to ventilation within 2 minutes, or if the Patient begins to resist.
 Repeat **Succinylcholine - 2mg/kg IVP**
 Administer **Versed 5mg**

Intubate after muscle relaxation

CONTACT MEDICAL CONTROL



MEDICAL EMERGENCIES

DIFFICULT AIRWAY - RAPID SEQUENCE INTUBATION

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HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
<ul style="list-style-type: none">• Difficulty maintaining an airway• Unable to intubate a patient due to gag reflex or combativeness	<ul style="list-style-type: none">• *SPO2 < 90% while on high flow O2• *Respiratory Rate < 10 or > 32 BPM• Partial airway obstruction from blood/secretions or trauma, or GCS of 8 or less• Respiratory exhaustion or inevitable loss of the airway	<ul style="list-style-type: none">• Any patient with the inability to maintain an airway and ventilate themselves when conventional intubation attempts have failed• Inability to intubate a patient due to an intact gag reflex

KEY POINTS

*****YOU MUST BE APPROVED AND TRAINED IN RAPID SEQUENCE INTUBATION TO INITIATE THIS PROCEDURE*****

1. No more than 4 total attempts at intubation should be attempted by the crew and no more than two attempts per crew member.
2. If unable to intubate using RSI protocol insert a King airway or Combitube or use BVM alone with an OPA and ventilate patient.
3. Use Capnography to continuously monitor PCO2 and tube placement.
4. If SPO2 remains <95 % after intubation, consider possible etiologies (e.g. CHF, Pneumothorax, mechanical failure, ect).
5. Succinylcholine is contraindicated in patients with known or suspected to be hyperkalemic, patients with increased intraocular pressure, and patients with burns >8 hours old.

MEDICATIONS
ETOMIDATE (Amidate)

P	EMT - P	P
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<i>ACTIONS</i>	Anesthetic Hypnotic Drug
INDICATIONS	For use in Rapid Sequence Intubation protocol for amesthesia induction
CONTRAINDICATIONS	Known sensitivity to the drug
SIDE EFFECTS	Transient venous pain Skeletal muscle movement
ADULT DOSAGE	0.3 mg/kg IVP

MEDICATIONS
LIDOCAINE (<i>Xylocaine</i>)

P	EMT – P	P
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<i>ACTIONS</i>	Suppresses ventricular ectopy Anesthetic
INDICATIONS	IO anesthetic Rapid Sequence Intubation in patients with increased intracranial pressure
CONTRAINDICATIONS	Allergy to Lidocaine Known hypersensitivity Second or third degree heart block Bradycardia Sinus arrest Hypotension
SIDE EFFECTS	Bradycardia Hypotension Dizziness, numbness Drowsiness, confusion Seizure
ADULT DOSAGE	EZ IO anesthetic dose 1-2 cc's (20 – 40 mg IO) into bone marrow prior to NS flush in conscious patient Rapid Sequence Intubation – 1 mg/kg IVP. Administer with Etomidate before giving Succinycholine

MEDICATIONS**SUCCINYLBCHOLINE CHLORIDE (Anectine)****P****EMT – P****P**

ACTIONS	Skeletal Muscle Relaxant
INDICATIONS	Facilitate tracheal intubation During Rapid Sequence Intubation Adjunct to general anesthesia Skeletal muscle relaxant
CONTRAINDICATIONS	History of malignant Hyperthermia Skeletal muscle myopathies Known hypersensitivity to the drug
SIDE EFFECTS	Apnea Cardiac arrhythmias Increased intraocular pressure Muscle fasciculations
ADULT DOSAGE	2 mg/kg IVP May be repeated once if there is not jaw relaxation or decreased resistance to ventilations within 2 minutes, or patient begins to resist.

VEDICATIONS
VERSED (Midazolam)

P	EMT – P	P
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ACTION	Sedative and hypnotic benzodiazepine Induces amnesia
INDICATIONS	Conscious sedation RSI – to help with sedation Seizure Facilitate intubation Facilitate pacing / cardioversion
CONTRAINDICATIONS	Intolerance to benzodiazepines Narrow-angle glaucoma Shock Coma
SIDE EFFECTS	<p>CNS – amnesia, headache, dizziness, euphoria, confusion, agitation, anxiety, delirium, drowsiness, muscle tremor, ataxia, dysphoria, slurred speech, and paresthesia.</p> <p>Cardiovascular – hypotension, PVC's, tachycardia, vasocagel episode</p> <p>Eye – blurred vision, diplopia, nystagmus, pinpoint pupils</p> <p>Respiratory – coughing, bronchospasms, laryngospasm, apnea, hypoventilation, wheezing, airway, obstruction, tachypnea</p> <p>Skin – swelling, burning, pain at the site of injection</p>
ADULT DOSAGE	2mg IV/IO max initial dose for sedation (may repeat as necessary) 5mg IV/IO max initial dose for seizures (may repeat as necessary) 5mg IV/IO for RSI and Violent Patients Versed may be administered IM or nasally in actively seizing or violent patients whenever IV access is not achieved
PEDIATRIC DOSAGE	Seizures – 0.1mg/kg IV/IO/IM/Intranasal to a max of 5mg 0.2mg/kg Intranasal to a max dose of 10mg



**Rapid Sequence Intubation
Pre-Hospital Procedure Report**

EMS Agency _____

EMS Run Number _____

DATE _____

**Indications for RSI
(Before Intubation)**

GCS _____

Pupil Status _____

SPO2 _____

Ventilation Rate _____

Heart Rate _____

B/P _____ / _____

To be filed out by the Paramedic Performing RSI:

Physical Findings or Justification for RSI:

Estimated Patients Weights in KG _____

Post Intubation

GCS _____

Pupil Status _____

SPO2 _____

Ventilation Rate _____

Heart Rate _____

B/P _____ / _____

Number of attempts _____

Successful _____

Tube Size _____

Medication Usage for RSI		
Drug	Dosage	Time
Etomidate		
Lidocaine		
Succinylcholine		
Vecuronium		

Patient Transported to _____

Paramedic Signature _____

Receiving RN Signature _____

Leave a copy at the ED, keep a copy for your records, and give a copy to Dan Ellenberger