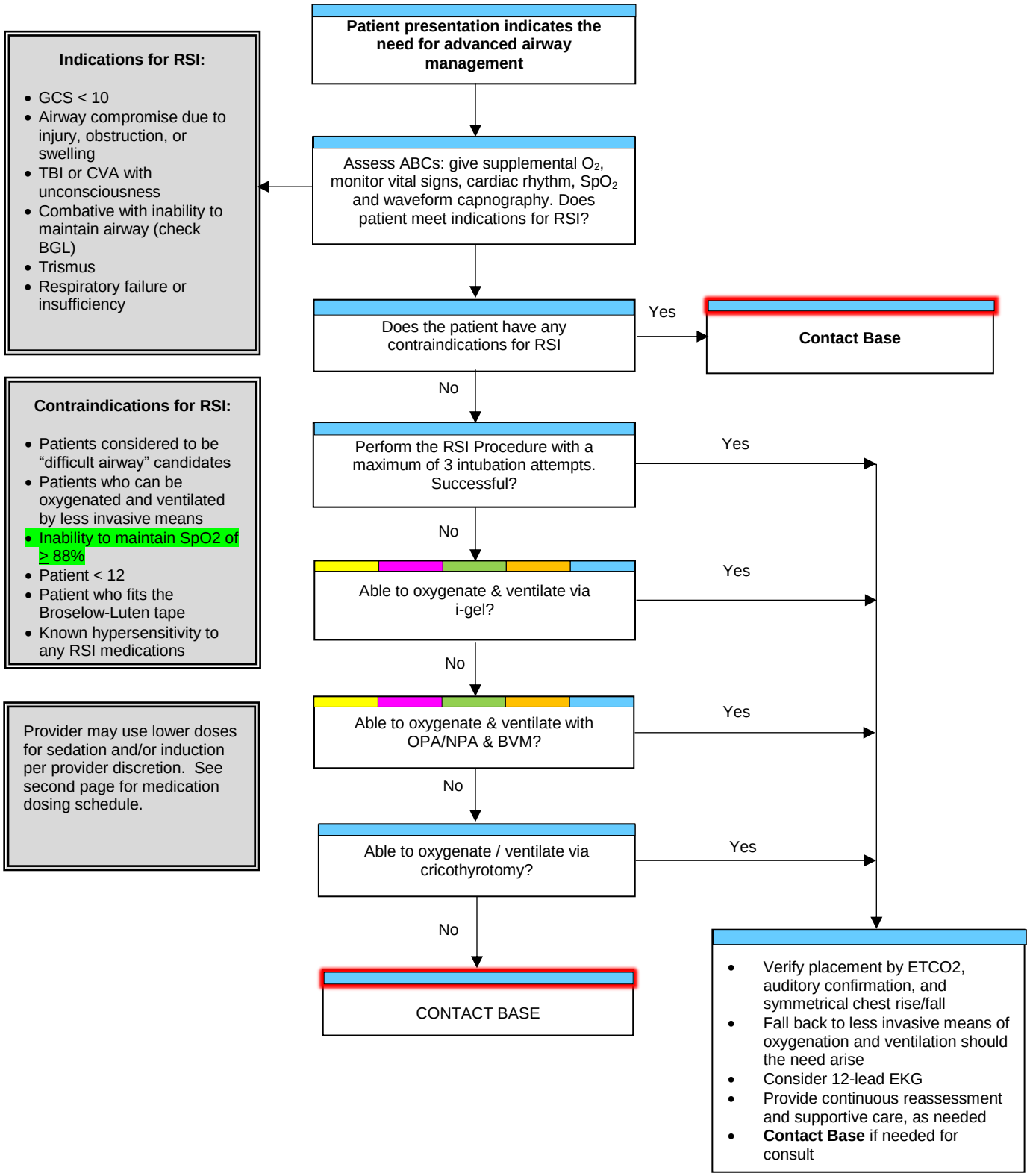
1001 RSI PROCEDURE RAPID SEQUENCE INDUCTION AND INTUBATION - RSI

EMR | EMT | EMT-I | AEMT | INTERMEDIATE | PARAMEDIC



Approved by EMS Medical Director January 20, 2020

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RSI Pearls:

Preparation:
- Look at the patient and perform a 30 second bedside evaluation
- Evaluate the 3:3:2 rule
- Mallampati classification 1-4
- Obstruction with blood, teeth, fractures, foreign bodies, edema and hematomas
- Neck immobility either to known or suspected trauma or medical considerations
- Saturation – ability to maintain at least 88%
- Note landmarks for cricothyrotomy before continuing with RSI
- Have all intubation adjuncts and rescue airway equipment readily available
- Prepare all required equipment, including back-up equipment and suction
- Ensure functioning vascular access and prepare all required medications
- If patient is spontaneously breathing, pre-oxygenate with 100% O2 for 5min. If pt is hypoventilating, then gently assist respirations with BVM while performing Modified Bimanual Laryngoscopy (MBL).
- Position the patient in the sniffing position unless c-spine precautions are necessary
- Based on clinical judgement consider apneic oxygenation and/or CPAP/BIPAP for pre-oxygenation

Procedure:

- **Etomidate-** 0.3 mg/kg IV
  or
- **Ketamine –** 1.5 mg/kg IV (Consider for hemodynamically unstable patients with SBP<90)
  and
  Succinylcholine- 2 mg/kg
  or
- **Rocuronium**- 1.5 mg/kg IV
- Maintain cricothyroid pressure and/or BURP maneuver while ventilating patients for approximately 60-90 seconds until paralysis is obtained
- Perform Oral Endotracheal intubation per protocol
- Administer post sedation and pain medication within 15 minutes of successfully performing Oral Endotracheal intubation

  - **Versed-** 2 mg (Repeat in 5 minutes PRN)
    or
  - **Ketamine-** 0.5 mg/kg (Consider use for hemodynamically unstable patients with SBP <90)
    And
  - **Fentanyl-** 1.0 mcg/kg (Administer ½ typical dosing in elderly (≥ 65) or frail patient)

  - **Ketamine-** 0.5 mg/kg (Consider use for hemodynamically unstable patients with SBP <90)

    OR

  - **Versed-** 2 mg (Repeat in 5 minutes PRN)
    AND
  - **Fentanyl-** 1.0 mcg/kg (Administer ½ typical dosing in elderly (≥ 65) or frail patient)

Precautions:
- Paralytics will cause respiratory arrest; therefore, the patient must be ventilated
- Patients may have gastric distention and are at risk for aspiration. BVM ventilation should only be done while maintaining cricoid pressure
- Maintain inline stabilization for suspected c-spine injuries
- RSI is a gentle skilled procedure and an ETT should never be forced
- Firm pressure with a lubricated appropriately sized tube may be used when visualizing the ETT pass through the cords and encountering a subglottic stenosis or FB
- When flight crew is the highest level of care, flight crew is responsible for and should confirm all medication doses prior to administration

Complications:
- Paralytic agents, usually succinylcholine, causing malignant hyperthermia, hyperkalemia, or bradycardia
- Oral, lip, tongue trauma and/or chipped or damaged teeth
- Esophageal intubation with vomiting, aspiration, and if unrecognized cerebral anoxia
- Tube displacement, either mainstem or extubation

Considerations:
- 3:3:2 rule: 3 fingers in a fully opened mouth between teeth, 3 fingers from chin to top of neck, and 2 fingers from top of neck to thyroid cartilage
- Glottic Opening (A) and Mallampati (B) classification

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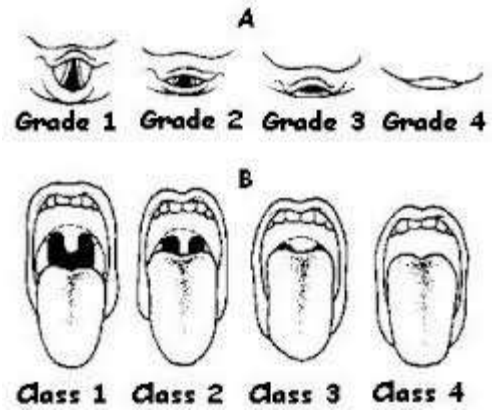

- All patients that undergo RSI should be assumed to have a full stomach and are at risk for passive regurgitation and aspiration; this risk is increased with BVM ventilation
- Consider using Modified Bimanual Laryngoscopy (MBL) where an assistant's hand is placed over the thyroid cartilage and the laryngoscopist's hand is placed over the assistant's hand while performing the BURP Maneuver. Once the optimal glottic view is obtained the assistant's hand maintains position while the laryngoscopist's right is removed in order to pass the tube
- If you are unable to ventilate the patient the first time, use BVM ventilation between attempts. Try something different each time up to 3 total attempts
- **After the third failed intubation attempt, utilizing available adjuncts such as the GlideScope and Bougie, continue BVM and place a rescue airway (King Airway/LMA) (iGel). If a definitive airway is needed then perform cricothyroidotomy, if indicated, then continue with usual confirmation and ventilation techniques**
- The choice of which RSI paralytic to use is a matter of consideration of the clinical situation. Succinylcholine has been shown to have a superior paralytic profile for RSI when compared to Rocuronium. Rocuronium should be a secondary choice for RSI after careful consideration of the clinical situation and the potential benefits and risks of each paralytic agent. In an obese patient, Rocuronium will delay desaturation by 46 seconds longer than succinylcholine and therefore may be a safer medication.
- RSI reporting forms must be sent in for all patients undergoing RSI in the State of Colorado. Pre and post RSI vital signs must be recorded as well as indication and any complications. It is imperative that the ETT position, at the corner of the mouth, is recorded initially, subsequently with every move of the patient and on arrival at the accepting facility
    - The form can be found at the following link:

https://docs.google.com/forms/d/e/1FAIpQLSdJM0ID2-i1MaRCIv6BuPMmV2ManPFXQCrfr3-by1uQttRR9A/viewform

- If the transport time is estimated to be > 15 minutes, then the patient should be placed on a ventilator if able to do so.