Rapid Sequence Intubation

Equipment Checklist

- Monitor with BP q1-3 min
- Secure IV access x 2
- OP and NP airways
- BVM with PEEP valve on O₂
- Laryngoscope - blades & batteries
- ETT - various sizes
- 10 cc syringe - check cuff
- Stylet with tube straight, 30° bend at cuff
  (stylet may vary with device)
- NRB & nasal cannula on O₂
- Suction x 2
- Bougie
- End tidal CO₂ capnography and/or colorimetric device
- Stethoscope
- Tube securing device
- OG tube
- Personal protective equipment

Backup devices:
- Video laryngoscope (standard and hyperangulated blades)
- LMAs
- Cric kit - Scalpel, bougie, 6-0 ETT

Basic Steps of RSI

1. Resuscitate (hypoxia, acidemia, BP)
2. Preparation (check equipment, assess pt)
3. Position patient
4. Pre-oxygenate & setup NC for apneic O₂
5. Push induction & paralytic agents
6. Placement with proof
7. Post-intubation mgt (sedation, CXR, ABG)

Post-Intubation Sedation Plan

Analgesia options:
- Fentanyl, morphine, hydromorphone
  - Example: Fentanyl 0.7 to 10 mcg/kg/hr

Sedation options:
- Propofol, benzodiazepines, dexamethomidine, ketamine
  - Example: Propofol 5 to 10 mcg/kg/min

This is for reference purposes only. EM:RAP and the authors assume no liability for use of the techniques described. Local practice, current guidelines, and clinician experience should determine the exact procedural process in any individual patient.

© 2019 EM:RAP Inc.
## Induction Agents for RSI

<table>
<thead>
<tr>
<th></th>
<th>IV Dose Standard</th>
<th>Suggested Dose 70 kg adult</th>
<th>IV Dose Shock</th>
<th>Onset</th>
<th>Duration</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ketamine</td>
<td>1 to 2 mg/kg (3 to 4 mg/kg IM)*</td>
<td>140 mg (2 mg/kg)</td>
<td>1 mg/kg</td>
<td>60 to 90 sec</td>
<td>5 to 15 min</td>
<td>Good for: - Hemodynamically unstable - Bronchospasm</td>
<td>- Increases secretions - Caution in hypertensive patients - Nausea, vomiting</td>
</tr>
<tr>
<td>Etomidate</td>
<td>0.2 to 0.6 mg/kg</td>
<td>20 mg (0.3 mg/kg)</td>
<td>0.2 mg/kg</td>
<td>15 to 45 sec</td>
<td>3 to 10 min</td>
<td>Good for most intubations</td>
<td>- Myoclonus - Adrenal suppression (unclear if clinically relevant) - Pain on injection - Nausea, vomiting</td>
</tr>
<tr>
<td>Propofol</td>
<td>1 to 2 mg/kg</td>
<td>105 mg (1.5 mg/kg)</td>
<td>0.2 mg/kg starting dose and titrate</td>
<td>15 to 45 sec</td>
<td>5 to 10 min</td>
<td>Good for: - Bronchospasm - Seizures</td>
<td>- Lowers BP - Caution in head injury (drops MAP and CPP) - Allergy to egg or soy - Pain on injection</td>
</tr>
</tbody>
</table>

*Intramuscular administration may significantly delay onset

## Paralytic Agents for RSI

<table>
<thead>
<tr>
<th></th>
<th>IV Dose Standard</th>
<th>Suggested Dose 70 kg adult</th>
<th>Onset</th>
<th>Duration</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succinylcholine</td>
<td>1.5 mg/kg (2 mg/kg infants and small children) (3 to 4 mg/kg IM)*</td>
<td>105 mg (1.5 mg/kg)</td>
<td>45 to 60 sec (2 to 3 min IM)</td>
<td>5 to 15 min</td>
<td>Shorter duration allows return of neuro exam</td>
<td>Contraindications: HyperK, Guillain-Barre, malignant hyperthermia, &gt;3d post burn or denervation, neuromuscular disorders, digitalis toxicity - Bradycardia, transient incr. in ICP &amp; IOP - Aminoglycosides may prolong effects</td>
</tr>
<tr>
<td>Rocuronium</td>
<td>0.6 to 1.2 mg/kg</td>
<td>70 mg (1 mg/kg)</td>
<td>60 to 120 sec</td>
<td>3 to 10 min</td>
<td>Good for most intubations</td>
<td>- Delays return of neuro exam - Reversed by sugammadex (costly, not widely available)</td>
</tr>
</tbody>
</table>

*Intramuscular administration may significantly delay onset

This is for reference purposes only. EM:RAP and the authors assume no liability for use of the techniques described. Local practice, current guidelines, and clinician experience should determine the exact procedural process in any individual patient.