**Pre-Procedural Assessment**

- Past medical history (note history of OSA)
- Prior problems with sedation/anesthesia
- Allergies to food or medications
- Procedure
- Dentures: none / upper / lower
- Cardiorespiratory reserve: no or mild impairment / moderate impairment / significant impairment
- Difficult airway features
- Last oral intake (see fasting grid on reverse)
- Weight (kg)

**Difficult Airway Features**

- Difficult Laryngoscopy:
  - Look externally, Evaluate 3-3-2 rule, Mallampati score, Obstruction, Neck Mobility
- Difficult BVM Ventilation:
  - Beard, Obese, No teeth, Elderly, Sleep Apnea / Snoring
- Difficult LMA:
  - Restricted mouth opening, Obstruction, Distorted airway, Stiff lungs or c-spine
- Difficult Cricothyroidotomy:
  - Surgery, Hematoma, Obesity, Radiation distortion or other deformity, Tumor

- Is this patient a good candidate for ED procedural sedation and analgesia?

  The less cardiorespiratory reserve, the more difficult airway features, and the less procedural urgency, the more likely the patient should not receive PSA in the emergency department. If not a good candidate for ED-based PSA, other options include regional or local anesthetic; PSA or GA in the operating room; or endotracheal intubation in the ED.

**Airway Equipment**

- Bougie & difficult airway equipment
- Colorimetric capnometer
- LMA with lubricant and syringe
- Suction, oral & nasal airways
- Ambu bag connected to oxygen
- Endotracheal tubes & stylets
- Laryngoscopy handles and blades
- Ambu bag connected to oxygen

**Airway Equipment**

<table>
<thead>
<tr>
<th>Agent</th>
<th>Dose*</th>
<th>Contraindications</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propofol</td>
<td>0.5-1 mg/kg IV</td>
<td>Egg or soy allergy</td>
<td>Preferred for shorter procedures and where muscle relaxation is of benefit; avoid if hypotension is a concern</td>
</tr>
<tr>
<td>Ketamine</td>
<td>1-2 mg/kg IV</td>
<td>Absolute: age &lt; 3 months, schizophrenia Relative: major posterior oropharynx procedures; history of airway instability, tracheal surgery, or tracheal stenosis; active pulmonary infection or disease; cardiovascular disease; CNS masses, abnormalities, or hydrocephalus</td>
<td>Preferred for longer procedures; avoid if hypertension/tachycardia is a concern; have midazolam available to manage emergence distress; muscle tone is preserved or increased; post-procedure emesis may be mitigated by prophylactic ondansetron</td>
</tr>
<tr>
<td>Etomidate</td>
<td>0.1-0.15 mg/kg IV</td>
<td>Intra-procedure myoclonus or hypertonicity, as well as post-procedure emesis, are common</td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td>1-2 mcg/kg IV</td>
<td>Comparatively delayed onset of action; do not re-dose too quickly</td>
<td></td>
</tr>
<tr>
<td>Midazolam</td>
<td>.05 mg/kg IV</td>
<td>Pregnancy, allergy to benzyl alcohol</td>
<td>Comparatively delayed onset of action; do not re-dose too quickly</td>
</tr>
<tr>
<td>Pentobarbital</td>
<td>1 mg/kg IV</td>
<td>Pregnancy, porphyria</td>
<td>Use for painless procedures where analgesia is not needed</td>
</tr>
</tbody>
</table>

**Reversal Agent**

<table>
<thead>
<tr>
<th>Dose*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naloxone</td>
<td>Caution</td>
</tr>
<tr>
<td>Flumazenil</td>
<td>Only use in benzodiazepine naïve patient</td>
</tr>
</tbody>
</table>

*All doses should be reduced in the elderly and in patients with marginal hemodynamics*
Post-procedure Assessment

☐ Adverse events none / hypoxia (< 90%) / aspiration / hypotension / agitation / other: ____________________________________

☐ Interventions taken none / bag valve mask / LMA / ETT / reversal agent / hypotension Rx / admission for PSA / other: _____________

☐ Adequacy of PSA nondistressed / mild distress / severe distress

☐ Procedure successful / unsuccessful

☐ MD or RN at bedside until patient responds to voice

☐ Telemetry, EtCO₂, SpO₂ monitoring until patient responding to questions appropriately

☐ If reversal agent used, observation two hours after answering questions appropriately

☐ Mental status and ambulation at baseline at time of discharge/disposition

---

PSA Intervention Sequence

• Proceed down intervention sequence as slowly as patient condition permits
• Jaw thrust as illustrated above - thumbs on maxilla, four fingers posterior to ramus
• Laryngospasm notch is behind the earlobe, between mastoid process and condyle of mandible – bilateral, firm pressure medially and cephalad (up and in)
• If rescue ventilation is required, bag slowly and gently
• see emupdates.com/psa for details

---

Fasting Grid

**Standard risk patient**

<table>
<thead>
<tr>
<th>Oral intake in the prior 3 hours</th>
<th>Emergent Procedure</th>
<th>Urgent Procedure</th>
<th>Semi-urgent procedure</th>
<th>Non-urgent procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
</tr>
<tr>
<td>Clear liquids only</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
<td>Up to and including brief deep sedation</td>
<td>Up to and including extended moderate sedation</td>
</tr>
<tr>
<td>Light snack</td>
<td>All levels of sedation</td>
<td>Up to and including brief deep sedation</td>
<td>Up to and including dissociative sedation; non-extended moderate sedation</td>
<td>Minimal sedation only</td>
</tr>
<tr>
<td>Heavier snack or meal</td>
<td>All levels of sedation</td>
<td>Up to and including extended moderate sedation</td>
<td>Minimal sedation only</td>
<td>Minimal sedation only</td>
</tr>
</tbody>
</table>

**Higher-risk patient**

<table>
<thead>
<tr>
<th>Oral intake in the prior 3 hours</th>
<th>Emergent Procedure</th>
<th>Urgent Procedure</th>
<th>Semi-urgent procedure</th>
<th>Non-urgent procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
</tr>
<tr>
<td>Clear liquids only</td>
<td>All levels of sedation</td>
<td>All levels of sedation</td>
<td>Up to and including extended moderate sedation</td>
<td>Minimal sedation only</td>
</tr>
<tr>
<td>Light snack</td>
<td>All levels of sedation</td>
<td>Up to and including extended moderate sedation</td>
<td>Minimal sedation only</td>
<td>Minimal sedation only</td>
</tr>
<tr>
<td>Heavier snack or meal</td>
<td>All levels of sedation</td>
<td>Up to and including extended moderate sedation</td>
<td>Minimal sedation only</td>
<td>Minimal sedation only</td>
</tr>
</tbody>
</table>

Minimal sedation only → Dissociative sedation; brief or intermediate-length moderate sedation → Extended moderate sedation → Brief deep sedation → Intermediate or extended-length deep sedation

---

Additional Comments

---

MD Name  Sign  Date/Time

---