







The administration of **sedatives, analgesics** and/or **anxiolytics** to **reduce awareness, pain, and anxiety** during **painful or distressing procedures** performed outside the operating room.

Responses to procedural sedation vary; **always have resuscitation personnel and supplies nearby.**




| Focused HISTORY | Focused PHYSICAL EXAM |
|--|---|
| <ul style="list-style-type: none"> PMHx: asthma, OSA, recent URTI sx, cardiac disease, any previous anesthesia or sedation Allergies Medications FHx: anesthetic complications Fasting duration: no solids >6h, clear liquids >1h, but do not delay procedure if emergent  | <ul style="list-style-type: none"> Vitals (age-appropriate) Airway: assess for features of a difficult airway (Mallampati score 3-4, poor neck mobility, small mouth, obesity, craniofacial abnormalities) Cardiac and respiratory exam LOC, signs of intoxication    |

PREPARATION & MONITORING

- Assemble personnel (nursing, respiratory therapy), equipment, & monitors (SpO2, HR, BP, capnography, +/- ECG)
- Vitals q5min during and q15min after procedure
- Observe airway, chest wall movement, signs of hypoxia, response to verbal/tactile stimuli
- Note: Provider administering sedation is **not** the same provider that is performing the procedure



Common APPROACHES & MEDICATIONS

| Goal | Example Use | Medication options: ensure weight- based dosing | |
|---|--|---|---|
| Moderate to deep sedation, profound analgesia, and immobilization | Major Painful Procedure orthopedic reduction, burn debridement, complex laceration repair, chest tube insertion   | Ketamine IV or IM | <ul style="list-style-type: none"> Sedative, dissociative amnestic, analgesic, anesthetic Very safe; maintains airway reflexes s/e: vomiting, emergence delirium, laryngospasm Contraindication: <3 months, hx psychosis  |
| | | Propofol IV | <ul style="list-style-type: none"> Sedative CNS depressant; decreases ICP, BP, RR Airway reflexes not maintained Contraindication: hypotension |
| Mild to moderate sedation, moderate analgesia, and anxiolysis | Minor Painful Procedure simple laceration repair, abscess I&D, dental extraction, foreign body removal | Fentanyl IV or IN | <ul style="list-style-type: none"> Opioid analgesic with fast onset & offset Typically used with midazolam (anxiolytic) s/e: respiratory depression |
| | | Nitrous Oxide (inhaled) | <ul style="list-style-type: none"> Anesthetic, amnestic, anxiolytic, analgesic Contraindications: asthma exacerbation, cystic fibrosis, altered LOC |
| Moderate to deep sedation, immobilization | Nonpainful Procedure diagnostic imaging (CT head, MRI) | Midazolam IN | <ul style="list-style-type: none"> Benzodiazepine with anxiolytic properties s/e: paradoxical reaction |



Serious complications usually occur post-procedure when painful stimuli are removed, or within 25 minutes of last medication dose

Monitor for potential COMPLICATIONS

- Emergence agitation:** risk increases with age
- Delayed emergence
- Oversedation, respiratory depression
- Nausea, vomiting
- Allergic reaction, anaphylaxis
- Laryngospasm, bronchospasm, aspiration
- Hypotension, bradycardia, shock, cardiac arrest



Patient is safe to discharge when they are vitally stable and at baseline LOC



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