

**Procedural Sedation (Adult and Pediatric)**

**CRITERIA**

- This protocol is for patients who are conscious and require medications for:
  - Short-term analgesic and/or anxiolytic therapy for procedures such as synchronized cardioversion, transcutaneous pacing, and CPAP
  - Sedation for advanced airway management
- In order to sedate the patient under standing orders to perform advanced airway management, the patient must meet **ALL** of the following criteria:
  - Adult
  - Altered mental status
  - Respiratory rate < 10 breaths/min
  - SpO<sub>2</sub> < 90% without supplemental oxygen
  - No immediate reversible cause of symptoms (e.g. opiate overdose responding to Naloxone)
- Adult patients who do not meet the above criteria **MUST** have prior approval of medications through OLMC
- Pediatric patients requiring procedural sedation, sedation for endotracheal intubation or post-intubation sedation **MUST** have prior approval of medications through OLMC
- Intubated patients must be monitored using waveform capnography
- Other procedures should be monitored using non-invasive capnography, if available

**CFR and All Provider Levels**

**CFR STOP**

**EMT**

**EMT STOP**

**Paramedic**

1. ABCs and vital signs
2. Administer oxygen
3. Obtain intravascular access
4. Begin cardiac monitoring
5. Monitor vital signs every 2-3 minutes
6. For an **ADULT** patient requiring procedural sedation, administer one of the following:
  - OPTION A: Etomidate 0.15 mg/kg IV (maximum 20 mg)
  - OPTION B: Diazepam 0.1 mg/kg IV (maximum 10 mg)
  - OPTION C: Midazolam 0.1 mg/kg IV (maximum 5 mg)
  - OPTION D: Lorazepam 0.02 mg/kg IV (maximum 4 mg)
  - OPTION E: Ketamine 1 mg/kg IV (maximum 100 mg)

7. For sedation to perform advanced airway management of an **ADULT** patient with ALL OF THE FOLLOWING CRITERIA:
- Altered mental status
  - Respiratory rate < 10 breaths/min
  - SpO<sub>2</sub> < 90% without supplemental oxygen
  - No immediate reversible cause of symptoms (e.g. opiate overdose responding to Naloxone)
    - Induction for advanced airway management, administer one of the following:
      - OPTION A: Etomidate 0.3 mg/kg IV (maximum 40 mg)
      - OPTION B: Diazepam 0.2 mg/kg IV (maximum 10 mg)
      - OPTION C: Midazolam 0.2 mg/kg IV (maximum 5 mg)
      - OPTION D: Lorazepam 0.1 mg/kg IV (maximum 4 mg)
      - OPTION E: Ketamine 2 mg/kg IV (maximum 200 mg)
    - Post-procedural sedation, administer one of the following:
      - OPTION A: Diazepam 0.2 mg/kg IV (maximum 10 mg)
      - OPTION B: Midazolam 0.2 mg/kg IV (maximum 5 mg)
      - OPTION C: Lorazepam 0.1 mg/kg IV (maximum 4 mg)
      - OPTION D: Ketamine 1 mg/kg IV (maximum 100 mg)

**Paramedic STOP**

**Medical Control Options**

8. For an **ADULT** patient who does not meet the criteria for standing order sedation for advanced airway management, administer medication options for induction and post-procedural sedation according to the dosing options as listed above
9. For a **PEDIATRIC** patient requiring procedural sedation, sedation for advanced airway management or post-procedural sedation, administer medication options according to the weight-based dosing for adult patients

**Key Points / Considerations**

- Due to its short duration of action, consider using Etomidate as a single sedative agent only for short-term procedures such as synchronized cardioversion
- When managing an intubated patient, it is preferable to continue additional dosing of the same benzodiazepine used for induction, rather than switch to a different medication
- Consider ideal body weight when dosing any of the above medications
- Consider less invasive means of managing the patient's airway if a difficult intubation is anticipated
- Peri-intubation hypotension may lead to patient decompensation and/or cardiac arrest. Attempt to improve blood pressure via crystalloid fluid infusion and/or vasopressors prior to intubation