1.0 **Classification**
- Benzodiazepine

2.0 **Mechanism of Actions**
- Sedative-hypnotic agent that causes central nervous system (CNS) depression and relaxation of skeletal muscle
- Fast acting with short duration of effect
- 3 - 4 times as potent as diazepam

3.0 **Indications**
- Tonic-clonic seizures
- To aid ETI, pacing and cardioversion
- As a chemical restraint in violent, agitated patients over 16 years old
- Procedural sedation/analgesia (benzodiazepine in conjunction with a narcotic; with Clinical Support Paramedic consult) for hyperacute severe pain such as with cardioversion or manipulation of a fracture

4.0 **Contraindications**
- Known allergy to benzodiazepines
- Acute narrow (closed) angle glaucoma

5.0 **Precautions**
- Midazolam has more potential than other benzodiazepines to cause respiratory depression
- Always start with lower doses (especially when administered IV) and increase cautiously to avoid loss of airway reflex or hypotension

6.0 **Route**
- May be given IV/IO, IM, IN, or buccal

7.0 **Dosage**

   **Adult**
   - For tonic-clonic seizures: 5 mg IN or buccal; may repeat once
   - To aid ETI/pacing/cardioversion: 1-2 mg IV over 20-30 sec; repeat q 2-3 minutes to a maximum of 10 mg
   - For chemical restraint: 5 mg IM or IN; may repeat once
   - Procedural sedation/analgesia: Generally same dosing as aiding ETI (require Clinical Support Paramedic consult first)

   **Pediatric**
   - For tonic-clonic seizures: 0.2 mg/kg IN or buccal to a maximum of 2 mg; may repeat once
   - To aid ETI/pacing/cardioversion: 0.05 mg/kg IV over 20-30 sec; repeat q 2-3 minutes as needed up to a maximum of 5 mg

8.0 **Supplied**
• 5 mg/mL in 2 mL vials

9.0 May Be Given By
• ACP/CCP

10.0 Adverse effects
• Respiratory depression
• Hypotension
• Decreased LOC, amnesia

11.0 Special notes:
• The effects of midazolam can be accentuated by CNS depressants such as narcotics and alcohol
• The Clinical Support Paramedic must be contacted prior to giving benzodiazepines in conjunction with narcotics to the same patient
• Pregnancy category D [potential benefits may warrant use of the drug in pregnant women despite potential risks (e.g. if it is required in a life-threatening situation)]

12.0 References
• Adult Airway Management Clinical Practice Guideline
• Adult Cardiac Arrhythmia Clinical Practice Guideline
• Altered Level of Consciousness Clinical Practice Guideline
• Mental Health Emergencies Clinical Practice Guideline
• Pain Management Clinical Practice Guideline
• Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed
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