Medical Control Guideline: DRUG REFERENCE – MIDAZOLAM

Classification

Sedative, benzodiazepine

Prehospital Indications

Agitated Delirium: patients requiring restraints for patient and provider safety Behavioral / Psychiatric Crisis: patients requiring restraints for patient and provider safety Cardiac Dysrhythmia: sedation prior to and/or during synchronized cardioversion or transcutaneous pacing Sedation and amnestic agent for patients receiving manual/mechanical ventilation if already intubated Seizure - Active

Adult Dose

Agitated Delirium / Behavioral / Psychiatric Crisis

5mg (1mL) IM/IN/IV, repeat x1 in 5 min prn, maximum total dose prior to Base contact 10mg for Agitated Delirium (Psychiatric Crisis requires Base order prior to any medication administered)

Cardiac Dysrhythmia - sedation prior to synchronized cardioversion / transcutaneous pacing **5mg (1mL) slow IV/IO push/IM/IN**, may repeat x1 in 5 min prn, maximum total dose prior to Base contact 10mg

Seizure - Active

5mg (1mL) IV/IO, repeat x1 in 2 min prn, maximum total dose prior to Base contact 10 mg **10mg (2mL) IM/IN**, contact Base for additional dosing

With Base Contact may repeat as above up to a maximum total dose of 20mg

Pediatric Dose

Agitated Delirium / Behavioral / Psychiatric Crisis

0.1mg/kg (5mg/mL) IV or **0.2mg/kg (5mg/mL) IM/IN**, dose per *MCG 1309*, repeat x1 in 5 min, maximum single dose 5mg, maximum total dose prior to Base contact 10mg for Agitated Delirium (Psychiatric Crisis requires a Base order prior to any medication administered)

Cardiac Dysrhythmia - sedation prior to synchronized cardioversion / transcutaneous pacing

0.1mg/kg (5mg/mL) IV/IO or **0.2mg/kg (5mg/mL) IM/IN**, dose per *MCG 1309*, repeat dosing every 5 min prn per Base order, maximum single dose 5mg

Seizure - Active

0.1mg/kg (5mg/mL) IV/IO or **0.2mg/kg (5mg/mL) IM/IN**, dose per *MCG 1309*, repeat x1 in 2 min prn, maximum single dose 5 mg maximum total dose prior to Base contact 10mg

With Base Contact may repeat as above up to a maximum total dose of 15mg

Mechanism of Action

Binds to receptors at several sites within the CNS, potentiates GABA receptor system which produces anxiolytic, anticonvulsant, muscle relaxant, and amnesic effects.

Pharmacokinetics

Onset 3-5 min IV, 15-20 min IM, 6-14 min IN Duration 1-6 hours IV/IM

Contraindications

Respiratory depression Shock / Poor perfusion (see prehospital considerations)

Interactions

Risk of respiratory or central nervous system depression, increases when used with diphenhydramine, fentanyl, morphine, or other opiate or sedative medications

Adverse Effects

Hypotension

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Respiratory depression / arrest

Prehospital Considerations

- Closely monitor respiratory and cardiac function after administration
- Caution in patients with suspected alcohol intoxication as midazolam can increase the risk for respiratory depression
- For patients with agitated delirium and violent behavior, IM/IN administration is recommended over IV for the initial dose for the safety of EMS personnel.
- If available, waveform EtCO₂ monitoring should be instituted after administration.
- For patients who are poorly perfusing and require sedation for safety (e.g., prevent inadvertent extubation) or require a painful procedure (e.g., transcutaneous pacing), one should use judgment in consultation with Base.