

Midazolam Administration Protocol

revised October 2008



Preamble

Tracheal intubation is the definitive advanced life support technique for airway management. Intubated patients are typically unconscious at the time of intubation, but their level of consciousness may improve as their condition improves. Midazolam is a short-acting intravenous benzodiazepine that provides sedation and anxiolysis in intubated patients. Administration may help maintain intubation and ventilation when extubation is not desired.

Midazolam is also an effective sedative when patients with unstable tachycardia require emergent cardioversion. Administration of midazolam in this setting to prevent unnecessary patient apprehension related to cardioversion.

Requirements

1. Fully licensed Technician-Paramedic.
2. Certification in midazolam protocol by the Medical Director.
3. Certification in tracheal intubation protocol by the Medical Director (if used for intubated patients).
4. Certification in tachycardia (unstable) protocol by the Medical Director (if used for patients requiring cardioversion).
5. Certification in intravenous cannulation protocol by the Medical Director.
6. Current certification as an advanced cardiac life support provider.
7. Facility for locked storage of midazolam consistent with controlled substance guidelines.

Minimum Patient Requirements

1. Intravenous line established.

and either

2. Securely intubated patient (if used for intubated patients).

or

3. Patient requires cardioversion (if used for patients requiring cardioversion).

Indications

1. Intubated patient with increased level of consciousness in whom extubation is not desirable and is either

- becoming distressed

or

- at risk of destabilizing his / her airway

or

2. Patient who meets the indications for cardioversion, as described in the unstable tachycardia treatment protocol.

Contraindications

1. Known hypersensitivity to midazolam or and other benzodiazepine.

2. Patient less than 16 years of age.

3. If used for intubated patient who does not require cardioversion: hemodynamic instability – systolic blood pressure less than 90 mm Hg or pulse greater than 150 per minute.

Drug Doses and Frequencies

midazolam

IV: 2 mg bolus

repeat dose may be given q15 minutes prn

- reduce bolus and repeat doses to 1 mg for geriatric patients and patients with pulmonary edema

Procedure

1. Perform patient assessment and record vital signs, level of consciousness, and oxygen saturation.
2. Assess that patient meets criteria for this protocol.
3. Ensure there are no contraindications to use of this protocol.
4. Administer oxygen as required.
5. Attach patient to cardiac monitor.
6. Provide care based on other protocols related to the patient's presenting complaint.
7. Administer midazolam intravenously.
8. Repeat assessment, including vital signs, level of consciousness, oxygen saturation, and effect of midazolam after each dose.

Documentation Requirements

The following information must be documented on the patient care report form:

1. Patient's presenting signs and symptoms, including vital signs, level of consciousness and oxygen saturation.
2. Indications for protocol use.
3. Dose and time for each midazolam dose used, and resulting clinical effects.
4. Repeat assessment and vital signs, as indicated.
5. Changes from baseline, if any, that occur during treatment or transport.
6. Amount of midazolam discarded, if any.
7. Signature and license number of EMS personnel performing any transfer of function skills. A second signature is required from another crew member or health care staff, witnessing discarding of unused midazolam (if applicable).

Certification Requirements

1. Demonstrate an understanding of the pharmacology and mechanism of action of midazolam.
2. Pass a written examination.
3. Certification is by the Medical Director.

Recertification Requirements

1. Review class and recertification is done every 12 months.
2. A record will be kept to document all cases where this protocol is used.

Decertification

1. Decertification is at the discretion of the Medical Director or the Provincial Medical Director, Emergency Medical Services, Manitoba Health & Healthy Living.

Quality Assurance Requirements

1. Appropriate quality assurance policies must be in place. The Medical Director or designate must review all instances where this protocol is used. As a minimum, the following must be assessed:
 - i) appropriateness of implementation
 - ii) adherence to protocol
 - iii) any deviation from the protocol
 - iv) corrective measures taken, if indicated
2. Yearly statistics for protocol use compiled and forwarded to Emergency Medical Services, Manitoba Health & Healthy Living.