

SEDATION

1. GENERAL INDICATIONS:

- 1.1 To reduce combative behavior that endangers patient or caregivers
- 1.2 As an adjunct to pain relief for ALS procedures such as cardioversion and/or cardiac pacing
- 1.3 Fracture and/ or dislocation management while repositioning an injured limb
- 1.4 **Use CAUTION with:**
 - ▶ **Concomitant use of morphine and midazolam can cause significant respiratory depression, hypotension and lower level of consciousness. Administer concomitantly only when absolutely indicated. Administer lower doses of one or both agents**
 - ▶ **Elderly patients are especially sensitive to the effects of midazolam. They should receive a lower dose and especially close monitoring**
 - ▶ **A very small proportion of patients may have a paradoxical effect (i.e. - increased agitation)**

2. CONTRAINDICATIONS:

- 2.1 **Absolute:**
 - ▶ Sensitivity to midazolam
 - ▶ Systolic BP < 90 mmHg (adult) - *except for patients who need TCP or cardioversion*
- 2.2 **Relative:**
 - ▶ Nausea/vomiting
 - ▶ Suspected drug/alcohol intoxication
 - ▶ Head injury
 - ▶ Concomitant narcotic administration - (this is a RELATIVE contraindication and is not intended to prevent the use of necessary narcotic analgesia, when indicated)
 - ▶ Depressed mentation
 - ▶ Multiple systems trauma

(These MAY be the proximate cause for the condition that requires proposed sedation. The best judgment of the paramedic is necessary to evaluate the need for sedation)

3. PROCEDURE:

- 3.1 Give supplemental oxygen
- 3.2 Institute continuous cardiac monitoring
- 3.3 Continuously monitor the patient using the Airway Checklist, including ETCO₂
- 3.4 Establish IV access if possible
- 3.5 Be prepared to provide airway/ventilation management
- 3.6 Ensure that receiving hospital personnel are aware that patient has been sedated
- 3.7 **Intranasal use of midazolam for sedation requires Base Physician consult**

INDICATIONS:	MEDICATION – DOSE / ROUTE:
MODERATE SEDATION INDICATIONS ✓To reduce combative behavior that endangers patient or caregivers ✓Anticipated: <ul style="list-style-type: none"> •Cardioversion in the conscious patient •Cardiac pacing in the conscious patient ✓Fracture/dislocation management	MIDAZOLAM: (see weight-based chart) Adult: <ul style="list-style-type: none"> ✓IV: 1-2 mg SLOWLY - loading dose. Titrate to desired degree of sedation. May repeat x 2, q 5 minutes, to a total maximum dose of 6 mg ✓IM: 2-4 mg - if unable to establish IV access. May repeat x 1, q 30 minutes Pediatric (> 5kg or <40kg) <ul style="list-style-type: none"> ✓IV: 0.05 mg/kg SLOWLY - loading dose. Titrate to desired degree of sedation. May repeat x 2, q 5 minutes, to total maximum dose of 3 mg ✓IM: 0.1 mg/kg - if unable to establish IV access. May repeat x 1, q 30 minutes

SEDATION

INDICATIONS:	MEDICATION – DOSE / ROUTE:
<p>PROFOUND SEDATION INDICATIONS</p> <ul style="list-style-type: none"> ✓ Airway management – anatomic or physiologic state that interferes with essential airway management (e.g.: trismus.) <p>Special Considerations</p> <ul style="list-style-type: none"> ✓ Intubation is not necessarily mandated in the sedated patient who requires airway management (see Advanced Airway Management procedure page 119) ✓ Greater than maximum dose requires Base Physician consult 	<p>MIDAZOLAM: (see weight-based chart below)</p> <p>Adult:</p> <ul style="list-style-type: none"> ✓ IV/IO: 2 mg SLOWLY - loading dose. Titrate to desired degree of sedation - may repeat 1-2 mg x 2, q 5 minutes, to a MAXIMUM of 0.1 mg/Kg ✓ IM: 0.1 mg/kg, may repeat x 1, q 30 minutes. <p>Pediatric (> 5kg or <40kg):</p> <ul style="list-style-type: none"> ✓ IV/IO: 0.05 mg/kg SLOWLY - loading dose. Titrate to desired degree of sedation - may repeat x 2, q 5 minutes ✓ IM: 0.1 mg/kg may repeat x 1, q 30 minutes

MIDAZOLAM - WEIGHT- BASED CHART

PEDIATRIC > 5 kg or < 40 kg			
Weight		Dose	
kg	lbs	0.05 mg/kg	0.1 mg/kg
5	11	.25 mg	.5 mg
10	22	.5	1
15	33	.75	1.5
20	44	1	2
25	55	1.25	2.5
35	77	1.75	3.5

ADULT > 40 kg			
Weight		Dose	
kg	lbs	0.1 mg/kg	
40	88	4 mg	
45	99	4.5 mg	
50	110	5 mg	
55	121	5.5 mg	
60	132	6 mg	
65	142	6.5 mg	
70	154	7 mg	
75	165	7.5 mg	
80	176	8 mg	
90	198	9 mg	
>100	>220	10 mg	