

Conscious Sedation Medications

1. **MORPHINE**

Dose: 0.1-0.2 mg/kg IV/IM for both adults and pediatrics

Onset: Almost immediate

Peak: 5-20 minutes

Duration: 2-7 hours

Effects: Analgesia. Drowsiness, mental clouding, papillary constriction, vasodilation, n/v, GI hypomotility, **hypotension, respiratory depression**

Contraindications: Head injury, low respiratory rate

2. **SUBLIMAZE (fentanyl)**

Dose:

Adult: 25-100mcg IV; dose may be repeated after 3 minutes; use of a benzodiazepine may potentiate fentanyl's effect

Pediatric: 1-2 mcg/kg; give over 3-5 minutes

Onset: Immediate

Peak: 5-15 minutes

Duration: 30-60 minutes

Effects: Analgesia. Sedation, euphoria, n/v, respiratory depression, GI hypomotility, hypotension, rigidity

Other: Muscle rigidity can involve the thorax making respiration/ventilation difficult; can be overcome with muscle relaxants or narcosis.

3. **NOCTEC (chloral hydrate)**

Dose: 50-100 mg/kg orally in pediatric

Onset: 30-60 minutes

Duration: 4-8 hours

Contraindications: GI disorders, hepatic/renal disease

4. **VALIUM (diazepam)**

Dose:

Adults 2-5 mg IM/IV adult (titrate IV): slow IVP over 1 minute

Pediatric: 0.04-0.2 mg/kg IV

DO NOT EXCEED 5mg per minute (3 minutes in pediatrics)

Onset: 1-2 minutes IV and 15-20 minutes IM Peak: 3-4 minutes

Duration: 15-60 minutes

Effects: Respiratory depression, hypotension, agitation, n/v, dizziness

Contraindications: Narrow angle glaucoma, psychosis

Other: Rapid IVP can cause apnea!

5. **VERSED (midazolam)**

Dose:

Healthy adults: 1-2.5 mg initial dose IV then titrate, give over 2 minutes; wait 2 minutes after each dose: max total dose of 5 mg.

Patients > 60 years old or chronically ill: 1-1.5 mg initial dose IV then titrate, give over 2 minutes; wait 2 minutes after each dose: max total dose of 3.5 mg.

Pediatric: 0.1 – 0.15 mg/kg IV; May give w/ fentanyl for synergistic effect. Don't exceed a total dose of 0.5 mg/kg or 10mg.

Onset: 1-5 minutes

Peak: 5-30 minutes

Duration: 2-6 hours

Effects: Sedative, anxiolytic, muscle relaxant, respiratory depressant, hypotension, agitation, n/v

Contraindications: Acute narrow angle glaucoma

6. **NARCAN (naloxone) (opioid antagonist)**

Dose:

Adults: 0.4-2 mg IV titrated to effect, repeat in 2-3 minute interval

-If dose exceeds 10mg without adequate response, depressive condition may not respond to naloxone

Pediatrics: 0.01 mg/kg IV/IM. If dose is ineffective, may give 0.1 mg/kg

-Patients greater than 5 years and 20 kg may receive adult doses

Onset: 2-3 minutes

Other: Repeated doses may need to be given as the duration of opioids may exceed Narcan

Effects: Hypertension, irritability, tachycardia

7. ROMAZICON (flumazenil) (benzodiazepine antagonist)

Administration: Due to irritation, give over 15-30 seconds in free flowing IV in a large vein

Adults dose: 0.2 mg IV, may repeat after 45 seconds up to five (5) total doses

Pediatric dose: 0.01 mg/kg up to 0.2 mg, may repeat after 45 seconds

Onset: 1-2 minutes

Other: If more doses are needed, additional series of 0.2mg x 5 doses may be given every 20 minutes for total of 3 mg/hr.

Effects: Agitation, hypertension, anxiety, tachycardia, N/V, tremors

8. KETAMINE

Patient's (receiving only ketamine) must be age 12 months to 10 years. Patients older than 10 years require co-administration of a benzodiazepine to prevent emergency reactions. Administration: Give ketamine 4mg/kg with atropine 0.01mg/kg (minimum 0.1mg, maximum 0.5mg of atropine) in same syringe and give IM when MD is ready to start procedure. If sedation is inadequate after 10 minutes, an additional dose of ketamine 2mg/kg IM can be given. Duration of action should be 15-30 minutes.

Dosing Chart:

Weight (kg)	Ketamine (mg) (10mg/ml)	Ketamine (ml)	Ketamine (mg)	Ketamine (ml)	Atropine (mg)	Atropine (ml from 0.4mg/ml vial)
	4 MG/KG DOSE		2 MG/KG DOSE			
5	20	2	10	1	0.1	0.25
6	24	2.4	12	1.2	0.1	0.25
7	28	2.8	14	1.4	0.1	0.25
8	32	3.2	16	1.6	0.1	0.25
9	36	3.6	18	1.8	0.1	0.25
10	40	4	20	2	0.1	0.25
11	44	4.4	22	2.2	0.11	0.28
12	48	4.8	24	2.4	0.12	0.30
13	52	5.2	26	2.6	0.13	0.33
14	56	5.6	28	2.8	0.14	0.35
15	60	6	30	3	0.15	0.38
16	64	6.4	32	3.2	0.16	0.40
17	68	6.8	34	3.4	0.17	0.43
18	72	7.2	36	3.6	0.18	0.45
19	76	7.6	38	3.8	0.19	0.48
20	80	8	40	4	0.2	0.50
21	84	8.4	42	4.2	0.21	0.53
22	88	8.8	44	4.4	0.22	0.55
23	92	9.2	46	4.6	0.23	0.58
24	96	9.6	48	4.8	0.24	0.60
25	100	10	50	5	0.25	0.63
26	104	10.4	52	5.2	0.26	0.65
27	108	10.8	54	5.4	0.27	0.68
28	112	11.2	56	5.6	0.28	0.70
29	116	11.6	58	5.8	0.29	0.73
30	120	12	60	6	0.3	0.75
31	124	12.4	62	6.2	0.31	0.78
32	128	12.8	64	6.4	0.32	0.80
33	132	13.2	66	6.6	0.33	0.83
34	136	13.6	68	6.8	0.34	0.85
35	140	14	70	7	0.35	0.88
36	144	14.4	72	7.2	0.36	0.90
37	148	14.8	74	7.4	0.37	0.93
38	152	15.2	76	7.6	0.38	0.95
39	156	15.6	78	7.8	0.39	0.98
40	160	16	80	8	0.4	1.00
41	164	16.4	82	8.2	0.41	1.03
42	168	16.8	84	8.4	0.42	1.05
43	172	17.2	86	8.6	0.43	1.08
44	176	17.6	88	8.8	0.44	1.10
45	180	18	90	9	0.45	1.13
46	184	18.4	92	9.2	0.46	1.15
47	188	18.8	94	9.4	0.47	1.18
48	192	19.2	96	9.6	0.48	1.20
49	196	19.6	98	9.8	0.49	1.23
50	200	20	100	10	0.5	1.25 (MAX AMOUNT OF ATROPINE)