

Precedex (dexmedetomidine)

Indication: Sedation (not to exceed 24 hours) of intubated and mechanically ventilated patients

Standard Concentration: 4mcg/ml

Total infusion time should not exceed 24 hours

Stable at room temperature for 48 hours

Dosing:

Bolus: 1mcg/kg over 10 minutes (bolus is drawn up from drip and thus will have same concentration as the infusion: 4mcg/ml)

Infusion Rate: 0.2-0.7mcg/kg/hour

Patients with hepatic failure should require lower doses.

Patients with renal failure may also require lower doses.

Dosing chart:

Weight: (kg)	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
1mcg/kg (ml) (Bolus)	11.3	12.5	13.8	15.0	16.3	17.5	18.8	20	21.3	22.5	23.8	25.0	26.3	27.5	28.8	30.0	31.3	32.5
0.2mcg/kg/hr (ml/hr)	2.3	2.5	2.8	3.0	3.3	3.5	3.8	4	4.3	4.5	4.8	5.0	5.3	5.5	5.8	6.0	6.3	6.5
0.25mcg/kg/hr (ml/hr)	2.8	3.1	3.4	3.8	4.1	4.4	4.7	5	5.3	5.6	5.9	6.3	6.6	6.9	7.2	7.5	7.8	8.1
0.3mcg/kg/hr (ml/hr)	3.4	3.8	4.1	4.5	4.9	5.3	5.6	6	6.4	6.8	7.1	7.5	7.9	8.3	8.6	9.0	9.4	9.8
0.35mcg/kg/hr (ml/hr)	3.9	4.4	4.8	5.3	5.7	6.1	6.6	7	7.4	7.9	8.3	8.8	9.2	9.6	10.1	10.5	10.9	11.4
0.4mcg/kg/hr (ml/hr)	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
0.45mcg/kg/hr (ml/hr)	5.1	5.6	6.2	6.8	7.3	7.9	8.4	9	9.6	10.1	10.7	11.3	11.8	12.4	12.9	13.5	14.1	14.6
0.5mcg/kg/hr (ml/hr)	5.6	6.3	6.9	7.5	8.1	8.8	9.4	10	10.6	11.3	11.9	12.5	13.1	13.8	14.4	15.0	15.6	16.3
0.55mcg/kg/hr (ml/hr)	6.2	6.9	7.6	8.3	8.9	9.6	10.3	11	11.7	12.4	13.1	13.8	14.4	15.1	15.8	16.5	17.2	17.9
0.6mcg/kg/hr (ml/hr)	6.8	7.5	8.3	9.0	9.8	10.5	11.3	12	12.8	13.5	14.3	15.0	15.8	16.5	17.3	18.0	18.8	19.5
0.65mcg/kg/hr (ml/hr)	7.3	8.1	8.9	9.8	10.6	11.4	12.2	13	13.8	14.6	15.4	16.3	17.1	17.9	18.7	19.5	20.3	21.1
0.7mcg/kg/hr (ml/hr)	7.9	8.8	9.6	10.5	11.4	12.3	13.1	14	14.9	15.8	16.6	17.5	18.4	19.3	20.1	21.0	21.9	22.8

Adverse reactions: hypotension, bradycardia, & sinus arrest. (as a result of increased vagal tone) Atropine or glycopyrrolate may be effective in treating side effects by modifying vagal tone. Vasopressors may also be effective.

Drug Interactions: amoxapine, antihypertensives, maprotiline, phenothiazines, tricyclic antidepressants (all can cause additive sedative effects prolonging anesthesia recovery)

Nursing Considerations: ECG, monitor HR and BP

Ramsey Level of Sedation Scale	
Clinical Score	Level of Sedation Achieved
6	Asleep, no response
5	Asleep, sluggish response to light glabellar tap or loud auditory stimulus
4	Asleep, but with brisk response to light glabellar tap or loud auditory stimulus
3	Patient responds to commands
2	Patient cooperative, oriented, and tranquil
1	Patient anxious, agitated, or restless

Precedex (continued)

Precedex Administration With Other Fluids/Medications

Compatibility of Precedex® with co-administration of blood, serum, or plasma has not been established. Precedex® has been shown to be **compatible** when administered with the following intravenous fluids and medications:

5% dextrose in water	dopamine	metronidazole
0.9% sodium chloride	doxycycline	midazolam
Lactated Ringer's	droperidol	milrinone
alfentanil	enalaprilat	mivacurium
amikacin	ephedrine	morphine
sulfate	epinephrine	nalbuphine
aminophylline	hydrochloride	Nipride
amiodarone	erythromycin	nitroglycerin
ampicillin	esmolol	norepinephrine
ampicillin-sulbactam	etomidate	ofloxacin
atracurium besylate	famotidine	ondansetron
atropine	fenoldopam	pancuronium
azithromycin	fentanyl	phenylephrine
aztreonam	citrate	piperacillin
bretylum	fluconazole	piperacillin-tazobactam
bumetanide	furosemide	potassium chloride
butorphanol	gatifloxacin	procainamide
calcium gluconate	gentamicin sulfate	prochlorperazine
cefazolin	glycopyrrolate	promethazine
cefepime	granisetron	propofol
cefoperazone	hydrochloride	ranitidine
cefotaxime	haloperidol lactate	rapacuronium
cefotetan	heparin sodium	remifentanil
cefoxitin	hydrocortisone	hydrochloride
ceftazidime	hydromorphone	rocuronium
ceftizoxime	hydrochloride	sodium bicarbonate
ceftriaxone	hydroxyzine	sodium nitroprusside
sodium	inamrinone lactate	succinylcholine
cefuroxime sodium	isoproterenol	sufentanil
chlorpromazine	ketorolac	citrate
cimetidine	tromethamine	sulfamethoxazole-
ciprofloxacin	labetalol	trimethoprim
cisatracurium besylate	levofloxacin	theophylline
clindamycin phosphate	lidocaine	thiopental
dexamethasone	linezolid,	ticarcillin
digoxin	lorazepam	ticarcillin- clavulanate
diltiazem	magnesium sulfate	tobramycin
hydrochloride	mannitol 20%	vancomycin
diphenhydramine	meperidine	vecuronium
dobutamine	methylprednisolone	verapamil
dolasetron mesylate	metoclopramide	