REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

dexmedeTOMidine

Effective Date: Jan 16 2019 Revised Date:	CLASSIFICATION **Anxiolytics, Sedatives, Hypnotics**	OTHER NAMES **Precedex**	PAGE 1 of 2

ADMINISTRATION POLICY:

IV Bolus – Not recommended

IV Infusion – Nurses under the supervision of an anesthetist

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 4mcg/mL in 50 mL premix, 100 mcg/mL 2mL single dose vial

IV Intermittent: Dilute in normal saline and administer loading dose over 10 - 20 minutes

IV Continuous Infusion: Use premix solution (50 mL or 100 mL of 4 mcg/mL solution)

OR

Remove 2 mL from a 50 mL NS IV bag

Add 200 mcg (2 mL) to IV bag

Final Concentration: 4 mcg/mL Final Volume: 50 mL

Maximum Concentration: 4 mcg/mL

DOSAGE:

Procedural sedation, Adjunct to anesthesia

Neonates Infants and Children:

Loading Dose: 0.5-1 mcg/kg IV over 10 to 20 minutes

Maintenance: IV Infusion of 0.2-0.7 mcg /kg/hour
May increase to maximum of 1.4 mcg/kg/hour in ventilated non-cardiac patients
(Children less than 1 year of age may require higher infusion rates)

NOTE: Manufacturer recommends that duration of treatment should not exceed 24 hours. However, there is some evidence supporting the use of prolonged infusions duration and higher loading doses in select patient populations.

Renal Impairment: No adjustment normally needed if CrCl less than 30 ml per minute consider dose reduction
Hepatic Impairment: Dosage reduction may need to be considered (50-75% of normal dose)

STABILITY/COMPATIBILITY:

Stability of vial: Opened vial should be used within 24 hours no preservative
Stability of Final Admixture: 24 hours at room temperature.

Compatibility: Compatible with normal saline, D5W, Ringer's Lactate

REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

dexmedeTOMidine

Effective Date: Jan 16 2019 Revised Date:	CLASSIFICATION **Anxiolytics, Sedatives, Hypnotics**	OTHER NAMES **Precedex**	PAGE 2 of 2

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

Adverse effects related to total dose and rate of administration.

CV: **hypotension, transient hypertension, bradycardia (common), cardiac arrhythmias (SVT, atrial fibrillation, extra systole)**

GI: nausea

HEMAT: anemia

RENAL: oliguria

OTHER: thirst, pulmonary edema, infection, rash, withdrawal effects (anxiety, tachycardia, hypertension, headache, diaphoresis, agitation) if abruptly stopped after prolonged administration

CAUTION:

- Use the caution in patients with advanced heart block, severe ventricular dysfunction, or hypovolemia.
- Patients may experience prolonged sedative effects for 2-3 hours post infection
- Levels/effects of dexmedeTOMidine may be increased if given concurrently with beta blockers, MAO inhibitors
- Levels/effects of dexmedeTOMidine may be decreased if given concurrently with SSRI's, tricyclic antidepressants

CONTRAINDICATIONS:

- Hypersensitivity to dexmedeTOMidine

REQUIRED MONITORING:

- Continuous monitoring of blood pressure, heart rate, ECG, and Respiratory rate q15 minutes.
- Patient should be monitored continuously to ensure appropriate level of sedation/ pain control.
- Following infusions greater than 6 hours duration, patient should be monitored for signs of withdrawal for up to 48 hours of discontinuing therapy.

ADDITIONAL NOTES:

- Withdrawal effects more likely after prolonged infusion (greater than 6 hours duration)
- Patient may be arousable with stimulation which should not be considered as evidence of lack of efficacy in the absence of other clinical signs and symptoms
- At low to moderate doses (10-300 mcg/kg) dexmedeTOMidine displays alpha 2 selectivity however at high doses (1000 mcg/kg) or after rapid administration, this selectivity diminishes