Guidelines for the Use of GLYCOPYRROLATE (Robinul®)

Recommended Neonatal Dose, Route, and Interval

- IV: 4-10 mcg/kg/dose every 4-8 hours IV over 15-20 minutes (Max rate = 20mcg/min)
- PO: 40-100 mcg/kg/dose every 8-12 hours. Give PO dose with the nearest feed

Chief Indications

1. Decrease excessive respiratory tract and upper airway secretions

Possible Adverse Reactions

1. Dry mouth
2. Urinary retention
3. Nausea/vomiting, constipation
4. Drowsiness
5. Tachycardia
6. Rash

CONTRAINDICATIONS/PRECAUTIONS:

1. Hypersensitivity to glycopyrrolate
2. Acute hemorrhage, tachycardia, paralytic ileus, myasthenia gravis
3. Use with caution in patients with hepatic or renal disease, diarrhea, hypertension, or CHF.
4. Infants with down syndrome, spastic paralysis, or brain damage may be hypersensitive to antimuscarinic effects

Nursing Implications

1. Be sure to check dose (mcg vs. mg)
2. Monitor heart rate
3. Give PO dose with the nearest feed
4. Store at room temperature
5. Oral doses for glycopyrrolate will be compounded as a 0.1mg/mL (100mcg/mL). Refrigerate and shake well

Special Considerations and Calculations:

1. Onset of action: after IV administration about one minute. Following IM injection, onset is delayed until 15-30 minutes and peaks at about 30-45 minutes. Incompletely absorbed from GI tract
2. Solution compatibility – D5W; infuse over 15-20 minutes
3. IV dose may be given orally

References:
1. Pediatric Dosage Handbook 17th Ed. 2010-2011