

AUTHORIZED BY: CPC Quality of Care Committee
ISSUE DATE: February 2020
CATEGORY: PCP/ACP Medications
TITLE: **GLYCOPYRROLATE**

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- Other Names:**
- Robinul
- Classifications:**
- Anticholinergic Agent
- Pharmacodynamics:**
- Blocks the action of acetylcholine at parasympathetic sites in smooth muscle, secretory glands, and the CNS; indirectly reduces the rate of salivation by preventing the stimulation of acetylcholine receptors
- Onset:**
- SC : 15-30 minutes
 - IV : Within 1 minute (ACP Only)
 - CVAD: Within 1 minute (ACP Only)
- Peak:**
- SC : ~30-45 minutes
 - IV : ~30 minutes (ACP Only)
 - CVAD : ~30 minutes (ACP Only)
- Duration:**
- Approximately 4- 6 hours SC
 - Approximately 2- 7 hours IV
- Indications:**
- Patient aged ≥ 18 registered in palliative care program
And
Congested/loud/rattling breathing in patients near the end of life
- Contraindications:**
- Allergy or Hypersensitivity to Glycopyrrolate
- Precautions:**
- Observe caution when using glycopyrrolate in patients with coronary heart disease, heart failure, cardiac arrhythmias or hypertension.
 - Do not use glycopyrrolate in patients with ileostomy/colostomy experiencing diarrhea caused by incomplete intestinal obstruction.
 - Use with caution in patients with hepatic disease, autonomic neuropathy, glaucoma, renal disease.
- Adverse Reactions:**
- Cardiovascular: tachycardia, palpitations, cardiac arrhythmias.
 - Dermatologic: urticaria, pruritus, burning at injection site, dry skin, decreased sweating (prolonged).
 - Endocrine and Metabolism: suppression of lactation.
 - Gastrointestinal: dry mouth (prolonged), loss of taste, nausea, vomiting, constipation, bloated feeling, decreased gastric acidity and fluid volume.
 - Genitourinary: urinary hesitancy/retention.
 - Immune: allergic reaction/anaphylaxis.
 - Ophthalmologic: blurred vision, acute glaucoma.
 - Respiratory: bronchodilation (prolonged).

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- Drug Interaction:**
- Anticholinergic agents may enhance the anticholinergic effect of glycopyrrolate
 - Glycopyrrolate may increase the serum concentration of atenolol
 - Glycopyrrolate may enhance the tachycardic effect of cannabinoids
 - Glycopyrrolate may decrease the serum concentration of haloperidol
 - Glycopyrrolate may decrease the serum concentration of levodopa
 - Monoamine oxidase inhibitors may enhance the orthostatic hypotensive effect of glycopyrrolate
- Clinical & Special Considerations:**
- Patient repositioning and gentle turning of the head to the side can be done instead of medication however suction of the oropharynx is not appropriate as it will likely cause discomfort and a gag reflex
- Image & Preparations:**
- 0.2 mg/ml 2 ml vial
- References:**
- Lexicomp 2020 <http://online.lexi.com>
 - Compendium of Pharmaceuticals and Specialties 2020(CPS)
 - Special Project Palliative Care Medical Directive
 - <https://www.e-therapeutics.ca/search>

NOTE: The information contained herein does not supersede or negate the MoHLTC Provincial Advanced Life Support Patient Care Standards and should only serve as general information about the medication itself. For medication dosages, please refer to the current version of the Ontario Provincial ALS Patient Care Standards.