nadolol (nay-do-lole)
Corgard, Syn-Nadolol

Classification
Therapeutic: antianginals, antihypertensives
Pharmacologic: beta blockers

Pregnancy Category C

Indications

Action
Blocks stimulation of beta1 (myocardial) and beta2 (pulmonary, vascular, and uterine) receptor sites.

Therapeutic Effects:
Decreased heart rate and BP.

Pharmacokinetics
Absorption: 30% absorbed after oral administration.
Distribution: Minimal penetration of the CNS. Crosses the placenta and enters breast milk.
Metabolism and Excretion: 70% excreted unchanged by the kidneys.
Half-life: 10–24 hr (q in renal impairment).

TIME/ACTION PROFILE (antihypertensive effects)
ROUTE ONSET PEAK DURATION
PO† up to 5 days 6–9 days 24 hr
†With chronic dosing

Contraindications/Precautions
Contraindicated in: Uncompensated HF; Pulmonary edema; Cardiogenic shock; Bradycardia or heart block.
Use Cautiously in: Renal impairment (CCr < 50 mL/min); Hepatic impairment; Pulmonary disease (including asthma). Dihydropyridine (may mask signs of hypoglycemia). Thyroid disease (may mask symptoms). Patients with allergy of severe al- large reactions (intensity of reactions may be ↑). GI: Crosses the placenta and may cause fetal/neonatal bradycardia, hypotension, hypoglycemia, or respiratory depression. Location: Pot: Safety not established. Geri: ↑ sensitivity to beta blockers; metadoline recommended.

Adverse Reactions/Side Effects

Interactions
Drug-Drug: General anesthesia (may cause respiratory depression). Additive hypotension may occur with other antihypertensives, acetaminophen, aspirin, diuretics. Concurrent use with amphetamines, cocaine, ephedrine, epinephrine, noradrenaline, phenylpropanolamine, or pseudoephedrine may result in unopposed alpha-adrenergic stimulation (excessive hypertension, bradycardia). Concurrent use with clonidine may result in hypotension and bradycardia. Con- current thyroid administration may ↓ effectiveness. May alter the effectiveness of b-blockers or selective alpha1-receptor antagonists. May ↓ the effectiveness of theophylline. May ↓ the effects of dopamine or dobuta- min. Use cautiously within 14 days of MAO inhibitor therapy (may result in hy- perpyrexia). Concurrent NSAIDs may ↑ antihypertensive action. Concurrent MAO inhibitor therapy may result in hy- pertension. Concurrent NSAIDs may ↓ antihypertensive action.

Route/Dosage
PO (Adults): Antihypertensive—40 mg once daily initially; may ↑ to 80 mg/day or q 3–7 days as needed (up to 240 mg/day); Antianginal—40 mg once daily initially may ↑ to 80–160 mg/day; q 7–14 days as needed (up to 510 mg/day).

Renal Impairment
PO (Adults): CCr 31–50 mL/min—q 2–3 days as needed (up to 240 mg/day); CCr 10–30 mL/min—q 4 days as needed (up to 510 mg/day); CCr < 10 mL/min—q 7 days as needed (up to 510 mg/day).

Usual Pediatric Dosage
PO (Children): 0.1 mg/kg/day or 5 mg/m2/day (up to 240 mg/day) given in two divided doses b.i.d.

Note: Initial dose recommended.
NURSING IMPLICATIONS

Assessment

- Monitor BP and pulse frequently during dose adjustment and periodically during therapy. Assess for orthostatic hypotension when assisting patient up from supine position.
- Monitor intake and output ratios and daily weight. Assess patient routinely for evidence of fluid overload (peripheral edema, dyspnea, rales/crackles, fatigue, weight gain, jugular venous distention).
- Hypertension: Check frequency of refills to determine compliance.
- Angina: Assess frequency and characteristics of angina periodically during therapy.

Lab Test Considerations:

- May cause increased BUN, serum lipoprotein, potassium, triglyceride, and uric acid levels.
- May cause increased ANA titers.
- May cause increase in blood glucose levels.

Potential Nursing Diagnoses

- Decreased cardiac output (Side Effects)
- Noncompliance (Patient/Family Teaching)

Implementation

- Discontinuation of concurrent clonidine should be done gradually; beta blocker discontinued first; then, after several days, discontinue clonidine.
- PO: Take apical pulse before administering. If /bks_53161_deglins_md_disk/nadolol 03/13/2014 08:07AM # 2
- Tablets may be crushed and mixed with food.
- Patients with diabetes should closely monitor blood glucose, especially if weakness, malaise, irritability, or fatigue occurs. Medication may mask some signs of hypoglycemia, but dizziness and sweating may occur.

Patient/Family Teaching

- Instruct patient to take medication exactly as directed, at the same time each day, even if feeling well; do not stop or double up on missed doses. Take missed doses as soon as possible up to 2 hr before next dose. Abrupt withdrawal may precipitate life-threatening arrhythmias, hypertension, or myocardial ischemia.
- Advise patient to ensure that enough medication is available for weekends, holidays, and vacations. A written prescription may be kept useful for emergencies.
- Teach patient and family how to check pulse and BP. Instruct them to check pulse daily and BP twice/wk. Advise patient to hold dose and contact health care professional if pulse is ≤ 50 bpm or if BP changes significantly.
- May cause dizziness or dizziness. Caution patients to avoid driving or other activities that require alertness until response to the drug is known.
- Advise patients in make position changes slowly to minimize orthostatic hypotension, especially during initiation of therapy or when dose is increased.
- Caution patient that this medication may increase sensitivity to cold.
- Instruct patient to consult health care professional before taking any OTC medications, especially cold preparations, concurrently with this medication.
- Patients with diabetes should closely monitor blood glucose, especially if weakness, malaise, irritability, or fatigue occurs. Medication may mask some signs of hypoglycemia, but dizziness and sweating may occur.
- Advise patient to notify health care professional if slow pulse, difficulty breathing, wheezing, cold hands and feet, dizziness, weakness, depression, rash, fever, sore throat, unusual bleeding, or bruising occurs.
- Advise patient to inform health care professional of medication regimen before treatment or surgery.
- Advise patient to carry identification describing disease process and medication regimen at all times.
- Hypertension: Reinforce the need to continue additional therapies for hypertension (weight loss, sodium restriction, stress reduction, regular exercise, reduction of alcohol consumption, and smoking cessation). Medication controls but does not cure hypertension.
- Caution patient in avoid position changes with decrease in heart rate.

Evaluation/Desired Outcomes

- Decrease in BP.
- Reduction in frequency of angina.
- Increase in activity tolerance. May require up to 5 days before therapeutic effects are seen.

Why was this drug prescribed for your patient?