

ACTIVE LEARNING TEMPLATE: *Medication*

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MEDICATION Dobutamine

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Inotropic/adrenergic

PURPOSE OF MEDICATION

Expected Pharmacological Action

Stimulates beta1 (myocardial)-adrenergic receptors with relatively minor effect on heart rate or peripheral blood vessels.

Therapeutic Use

Increased cardiac output without significantly increased heart rate.

Complications

hypertension, increased heart rate, premature ventricular contractions, angina pectoris, arrhythmias, nausea/vomiting, headache

Medication Administration

IV: 2.5-15 mcg/kg/min; titrate to response (max dose: 40mcg/kg/min)

Contraindications/Precautions

CI: hypersensitivity to dobutamine or bisulfites, idiopathic hypertrophic subaortic stenosis
Prec: history of hypertension, MI, atrial fibrillation, hypovolemia

Nursing Interventions

Monitor BP, HR, EKG, cardiac output, CVP, and a urinary output continuously during administration; palpate peripheral pulses and assess appearance of extremities during administration; monitor potassium and electrolytes. If overdose occurs, reduction or discontinuation of therapy is the only treatment necessary because of short duration of dobutamine.

Interactions

Use with nitroprusside; may have a synergistic effect on an increased cardiac output, beta blockers may negate the effect of dobutamine, increased risk of arrhythmias or hypertension with some anesthetics, MAO inhibitors, oxytocics, or tricyclic antidepressants

Client Education

Inform immediately if CP, dyspnea, numbness/tingling/burning of extremities occurs; Notify of pain at administration site; Report signs of worsening HF (SOB, orthopnea, decreased exercise tolerance), abdominal pain, and nausea or vomiting to HCP

Evaluation of Medication Effectiveness

Increase in cardiac output, improved hemodynamic parameters, increased urine output