Dobutamine

Dobutamine is a catecholamine that works as a beta-1 agonist, increasing inotropic activity of the heart. It is a cardiac stimulant used to treat heart failure, or in patients who have had cardiac surgery. As a beta-1 sympathomimetic, it can lead to tachycardia and arrhythmia, thus, patients should be closely monitored when this medication is given. Furthermore, other medications, such as MAOIs and TCA’s may increase the potency of dobutamine.



PLAY PICMONIC

Mechanism

Beta-1 Agonist
Beta-fish (1) Wand Dragonist
Dobutamine’s primary activity results from its stimulation of beta-1 adrenoreceptors of the heart, leading to increased contractility and cardiac output.

Inotropic
I-heart Flexing
This medication is a positive inotrope, meaning that it increases cardiac output and contractility.

Indications

Heart Failure
Dead Heart
This drug is indicated for use in patients with acute, or potentially reversible heart failure to increase cardiac output. Other uses include after cardiac surgery, or in patients with cardiogenic shock.

Side Effects

Tachycardia
Tac-heart-card
Due to it’s beta-1 adrenergic stimulation, dobutamine can lead to tachycardia in patients.

Arrhythmias
Broken Arrhythmia-drum
As patients can develop tachycardia with administration of dobutamine, and it can lead to ventricular arrhythmias.

Considerations

Closely Monitor Patients
Monitor Close to Patient
Because of the possibility for adverse cardiac side effects, patients should be monitored when this medication is administered, via ECG for tachycardia and they should also be watched for hypertension. Typically the medication is given via continuous IV infusion in an inpatient setting.

Other Meds May Increase Potency
Med-bottles Up-arrow Pot
A notable drug interaction exists between dobutamine and MAOI’s and TCA’s. MAOI’s and TCA’s can increase the potency of dobutamine, so providers should be aware of a patient’s medication history prior to administration.

Sign up for FREE at picmonic.com