

CARDIAC CARE CENTER

IV Nesiritide (Natrecor)

POLICY/PROCEDURE

PURPOSE: To establish guidelines for the infusion of intravenous (IV) nesiritide on the cardiac care center.

POLICY STATEMENT: IV nesiritide may be administered on the cardiac care center according to the following guidelines:

1. IV nesiritide must be monitored by the heart failure physicians.
2. Patient must be on continuous cardiac monitoring.

ACTION: Nesiritide is a B-type natriuretic peptide used in heart failure patients. It has the balanced hemodynamic effects of vasodilating both veins and arteries, positive neurohormonal effects mainly by decreasing aldosterone, and positive renal effects by increasing diuresis and natriuresis. It improves clinical symptoms of dyspnea, fatigue, light-headedness, decreased appetite, and urinary output without increasing heart rate.

DOSAGE:

BOLUS: 2 mcg/kg IV push over 1 minute (Optional — MD may decide not to bolus first)

INFUSION: 1.5-mg vial to be reconstituted with 5 cc of normal saline or dextrose 5% in water. The 5 cc is added to 250 cc dextrose 5% in water or 0.9% saline. Invert IV bag several times to mix solution. Prime IV line with the solution before administration. Then, start an IV infusion of 0.01 mcg/kg/min. Maximum: 0.03 mcg/kg/minute. Usual infusion is eight to 48 hours and may be given in conjunction with dobutamine.

MONITOR FOR:

1. Drop in blood pressure, bradycardia, and confusion.
2. Monitor renal status including blood urea nitrogen and creatinine.
3. Rare episodes of ventricular dysrhythmias.
4. Ace inhibitors should not be administered within two hours of the IV bolus to 30 minutes after starting the IV infusion.

NURSING CONSIDERATIONS:

1. Vital signs q 15 minutes x 4, q 30 minutes x 2, q 1hour x 2, then q 4 hours during infusion.
2. Needs dedicated IV line. Not compatible with other IV medications.
3. Do not administer through heparin-coated central lines.
4. Drug does not need to be weaned.
5. If hypotension occurs, stop infusion and use general supportive measures to support blood pressure (IV fluids, body position). If drug is restarted, it may be started at 30% reduction in dose.
6. Usually given at a fixed-dose infusion, but if MD decides to increase, up-titration should be done at three-hour intervals up to 0.03 mcg/kg/min.

DRUG INTERACTIONS: None reported, except may cause hypotension in patients receiving oral ACE inhibitors.

PRECAUTIONS: Significant valvular stenosis Restrictive or obstructive cardiomyopathy
Constrictive pericarditis Pericardial tamponade Pregnancy

CONTRAINDICATIONS: Hypersensitivity to any of its components
Cardiogenic shock Systolic blood pressure < 90 mm Hg
Concomitant administration of IV nitroglycerin, nitroprusside, or IV ACE inhibitors
Patients with low cardiac filling pressures

9/01

Source: Cardiac Care Center, University of Chicago Hospital.