

## Intravenous Nicardipine Quick Reference Cardene®

<b>Who administers</b>	RN
<b>Must MD be present during administration</b>	No
<b>Monitoring required</b>	Patients are always placed on telemetry and noninvasive BP monitoring. Monitor BP before initial dose and every 15 minutes for 1 hour after the infusion is initiated and after a dose change. Thereafter, blood pressure is followed at a minimum of every 30 minutes and if clinical deterioration occurs. Be prepared for hypotension.
<b>Measurement of intervals required</b>	None
<b>Suggested bedside equipment for emergency</b>	Primed IV line of normal saline to treat hypotension.

**Classification:** Nicardipine is a dihydropyridine calcium-channel blocker that inhibits the contractile processes of smooth muscle cells resulting in coronary and systemic vasodilatation.

**Indication:** I.V. Nicardipine is indicated for the treatment of hypertension, including hypertensive urgency and hypertensive emergency.

**Adverse Effects:** Hypotension, headache, and tachycardia may occur. In patients who are taking beta-blocking agents, Nicardipine may precipitate or exacerbate heart failure.

**Medication Administration:** For rapid treatment of severe hypertension, including stroke patients not eligible for thrombolytic therapy and during and after the administration of thrombolytic therapy:

Intravenous Administration

- Visually inspect parenteral products for particulate matter and discoloration prior to administration whenever solution and container permit.

*Dilution:*

- Ampuls must be diluted prior to infusion. Dilute each ampul (25 mg/10 ml) with 240 ml normal saline to make 250 ml of IV solution. The final concentration should be 0.1 mg/ml.

If a peripheral vein is used, the infusion site should be changed every 12 hours.

Initiate therapy at 5 mg/hour as a continuous IV infusion. The initial infusion rate of 5mg/hr IV may be increased by 2.5 mg/hr every 5 minutes to a maximum of 15 mg/hr, to maintain a SBP less than 220 mm Hg and DBP <110 mm Hg. In general, aim for a 10-15% reduction in SBP.

For each 250 ml of IV solution:

3mg/hr = 30ml/hr  
 5 mg/hr = 50 ml/hr  
 7.5 mg/hr = 75 ml/hr  
 10 mg/hr = 100 ml/hr  
 12.5 mg/hr = 125 ml/hr  
 15 mg/hr = 150 ml/hr

**Documentation:** Document in MAR dose administered.

**Contraindications/ Cautions:** Nicardipine is contraindicated in patients with hypotension and in advanced aortic stenosis. It should be used cautiously in those with impaired renal or hepatic function or in combination with a beta-blocker in CHF or significant left ventricular dysfunction patients and in patients with portal hypertension. Cyclosporine and digoxin levels should be closely monitored during therapy.