



GENERIC NAME: VERAPAMIL HCl

BRAND NAME: Isoptin, Calan, Verelan

CLASS: calcium channel blocker

Mechanism of Action:

Blocks calcium ion influx into cardiac and smooth muscle cells causing a depressant effect on the contractile mechanism resulting in negative inotropy. Reduces contractile tone in vascular smooth muscle resulting in coronary and peripheral vasodilation.

Slows conduction and prolongs refractory period in the AV node due to calcium channel blocking. Slows SA node discharge. In summary, decreases myocardial contractile force and slows AV conduction.

Indications and Field Use:

Supraventricular tachycardia Atrial fibrillation and atrial flutter with rapid ventricular response

Contraindications:

AV block, Sick sinus syndrome, any wide QRS complex tachycardia Shock Severe CHF

Adverse Reactions:

Extreme Bradycardia, Asystole AV block Hypotension
Congestive heart failure

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

IV Beta-blockers

Adult Dosage:

2.5 - 5.0 mg IV PUSH over 2-3 minutes. May re-bolus in 15-30 minutes with 5-10 mg IV PUSH until a maximum dose of 20 mg

Pediatric Dosage:

IV form not used in children in the field

Routes of Administration:

IV slow push (See: Special Notes)

Onset of Action:

1-3 minutes

Peak Effects:

3-5 minutes

Duration of Action:

2-5 hours

Dosage Forms/Packaging:

5 mg/2 ml prefilled syringes, ampules and vials (2.5 mg/ml)

Arizona Drug Box Supply Range:

PARAMEDIC and QUALIFIED IEMT: 2 - 3 units

INTERMEDIATE: 0

Special Notes:

- > May be used in conjunction with cardioversion.
- > Vagal maneuvers may be tried first (Valsalva maneuver).
- > Monitor closely for hypotension and AV block during administration.
- > Slow IV push: Verapamil is generally given over a 1-2 minute period. In middle age or older patients the IV dose should be administered over a 3 minute period. Peak effects occur within 3-5 minutes of bolus injection.
- > Hypotension may be treated with fluids, supine position, and/or calcium chloride.
- > Cautious administration is recommended when IV verapamil is given to a patient receiving oral Beta blockers or oral calcium channel blockers (not a contraindication).
- > The ventricular response to atrial fibrillation in patients with Wolff-Parkinson-White (WPW)

syndrome may be accelerated in response to verapamil and VF can occur. Verapamil should be used cautiously, if at all, in patients with WPW syndrome associated with atrial fibrillation and flutter.

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Drug Profile for Verapamil HCl

> Verapamil is not effective for the treatment of most types of VT. It may induce severe hypotension and predispose the patient to the development of VF. Avoid verapamil in patients with wide-QRS tachycardia unless it is known with certainty to be supraventricular in origin.

> In patients with acute pump failure (not severe), therapy with verapamil is indicated (used cautiously) if resolution of the tachycardia will remove the cause of the hemodynamic compromise. IV calcium has been recommended as pretreatment therapy against hypotension in patients with marginal blood pressure or with left ventricular dysfunction.

> Because of the shorter duration of action, adenosine is preferable in PSVT.