

Drug: Vasopressin
Trade Names: Pitressin

REVISED: November 1, 2018

Class:

- Anti-diuretic Hormone

Mechanism of Action:

- Increases cyclic adenosine monophosphate (cAMP) which increases water permeability at the renal tubule resulting in decreased urine volume and increased osmolality
- Direct vasoconstrictor *without* inotropic or chronotropic effects.
- It may cause contraction of smooth muscle of the GIT and all parts of the vascular bed, especially capillaries, small arterioles and venules.

Indications:

- Severe and non-responsive hypotension
- Septic shock
- Diabetes insipidus
- Cardiac Arrest

Contraindications:

- Hypersensitivity

Precautions:

- Pregnancy Class B (presumed safe based on animal studies)
- Chronic Nephritis
- Ischemic Heart Disease
- May cause "water intoxication) with hyponatremia.

Dosage:

Doses are highly variable and based on institutional guidelines and patient laboratory values. Double check orders with transferring physician.

- **Cardiac Arrest (Bolus):**
 - IV/IO 40 Units once
- **Shock conditions (Infusion)**
 - IV/IO infusion: 0.01 - 0.1 U/min
 - May be preceded by a loading bolus of 1-10 units

Onset:

- IV/IO: Immediate

Duration:

- Based on infusion duration

Side Effects:

- Head aches
- Chest pain, arrhythmias
- Pulmonary edema
- Bronchoconstriction

IFT

REFERENCE ONLY

This document is for **reference only**. Please refer to Physician Order's for specific indications, dosages, and applications

IFT DRUG: Vasopressin Infusions

- Abdominal Cramps, Flatulence
- Mesenteric Ischemia

Interactions:

PEARLS:

- When given as an infusion, it must be given on a pump.
 - It can cause adverse reaction of arrhythmias, cardiac arrest, angina, myocardial ischemia, and peripheral constriction. This is usually seen in doses > 0.04 units/minute.
- Often supplied in 20-40 units in 1-2 ML. May be mixed in a syringe for infusion (40 U /40 ML) or in a 100 cc solution.
- Incompatible in the IV line with phenytoin and frusemide
- Rapid rebound hypotension is a frequent reaction to the abrupt discontinuation of the drip. Therefore, stopping the infusion should only be done as a last resort.
 - Ideally, vasopressin should be titrated down slowly by 0.01 unit/minute increments before discontinuing the drip to avoid adverse reactions.
- Vasopressin is metabolized by the kidneys and the liver. Renal/hepatic impairment may prolong excretion.
- Monitor for hyponatremia. If suspected, contact medical control for instructions. Instructions might consider Sodium Bicarbonate 0.5-1 meq/kg.

REFERENCE ONLY