

Name(s)

- **Generic:** valsartan (val SAR tan) | **Brand:** Diovan, *Prexxartan (Solution currently not for pt use)

Therapeutic Category

- Angiotensin II Receptor Blocker (ARB) | Antihypertensive Agent

Dosage Form & Strength

- **Tablet:** 40 mg, 80 mg, 160 mg 320 mg

Indication(s)

1. **Heart Failure w/ reduced ejection fraction:** For NYHA class II to IV heart failure treatment
2. **Hypertension:** Treating and managing hypertension
3. **Post-myocardial infarction:** Reduces mortality in patients w/ left ventricular failure (or dysfunction) after myocardial infarction such as ST-elevation MI (STEMI) or non-ST-elevation MI (NSTEMI).
- OFF LABEL | In nondiabetic or diabetic proteinuric chronic kidney disease

Dosing by Indication

1. Adults | **Heart Failure w/ reduced ejection fraction:**
 - Initiate **20-40 mg po bid**. Dose increase every 1-2 weeks **up to 160 mg bid**. If the patient is hospitalized and monitored titration may occur every 1-2 days instead of 1-2 weeks.
2. Adults | **Hypertension:**
 - NOTE: Used in patients that have a BP >20/10 mmHg above goal or poor response to monotherapy. (Combination therapy). Can be used with a thiazide diuretic or long-acting dihydropyridine calcium channel blocker.
 - **HTN:** Initiate 80-160 mg po qd with dose adjustments every 4-6 weeks with a max dose of 320 mg qd.
3. Adults | **Post-myocardial infarction:**
 - NOTE: An ARB is in addition to antiplatelet agent(s), beta-blocker, statin; or what MD deems as appropriate for the patients' medical regimen.
 - **NSTEMI:** Initiate **20 mg po bid**. May increase **up to 160 mg bid** but monitor to avoid hypotension.
 - **STEMI:** Initiate **20 mg po bid**, may increase **up to 160 mg bid** but monitor to avoid hypotension risk.
- OFF LABEL | In nondiabetic or diabetic proteinuric chronic kidney disease
 - Initiate **40-80 mg po bid**. May titrate **up to 160 mg bid** based on patient's blood pressure with a target based on BP goal and proteinuria goal typically <1 g/day.
- Pediatric | Hypertension (Limited data so consult most recent literature)
 - **6 months – <6 years** (weighing ≥6 kg & ≤40 kg): Dosing range for compounded suspension is 0.25-4 mg/kg/dose po qd.
 - **6 years – 16 years:** Dosing range for oral solution or compounded suspension is **0.65 mg/kg/dose po bid** with a max dose of 40 mg/day. Max dose is **1.35 mg/kg/dose bid** with a max daily dose of 160 mg/day. | Tablet is initiated at **1.3 mg/kg po qd** with max initiation dose of 40 mg/day. Max dose of **2.7 mg/kg/dose qd** or max daily dose of 160 mg/day.



- **Adolescents ≥17 years:** Oral solution is initiated between 40-80 mg po bid up to max daily dose of 320 mg/day. | Tablet is initiated between 80-160 mg po bid up to max daily dose of 320 mg/day.

Mechanism of Action & Pharmacology

- Valsartan is an angiotensin II (AT2) receptor antagonist (blocker) that displaces AT2 from the AT1 receptor. It acts directly on the pathway causing vasoconstriction along with water intake; as well as causing the release of aldosterone, catecholamines, and arginine vasopressin. (It is purposed that ARBs are more efficient than ACEs and have less side effects.)
- **Metabolized** to active metabolite | 83% is **excreted** fecally and 13% though the urine as the unchanged drug | the **onset of action** is ~2 hours | **Time to Peak** in adults is between 2-4 hours as the tablet and 0.7-3.7 hours as the solution. In children (1-6 years or age) the orals suspension reaches its peak effect around 2 hours | **Duration of Action** is approximately 24 hours | The **elimination half-life** in adults is around 6 hours and increases by 35% in the elderly. In children (1-16 years of age) elimination half-life is around 4-5 hours | 95% **protein bound**

Special Populations & Considerations

- **Elderly:** AUC is 70% higher and half-life is 35% longer | **Hepatic Impairment:** AUC is twice as concentrated in patients with mild to moderate chronic liver disease | **Solution vs Tablets:** Solutions (even those compounded from tablets) have greater bioavailability than tablets | **Cautions:** ARBs appear to have a lower risk of angioedema but caution in pts w/ hx. Hyperkalemia and Hypotension may occur.

Side Effects

- **Common:** Dizziness, lightheadedness, & orthostatic hypotension | **Others:** Diarrhea, abdominal pain, & nausea

BLACK BOX WARNING: Fetal toxicity – Drugs that affect the renin-angiotensin system can cause injury/death to fetus.

Drug Interactions

- **General:** Aliskirin; lithium; potassium increasing drugs (such as ACE inhibitors, birth control pills, cyclosporine, heparin); meds that may effect blood pressure such as amphetamines (↑BP), cough/cold products, diet aids, & NSAIDs (↑BP).

Monitoring Parameters

- Blood pressure (baseline & periodically); blood urea nitrogen (BUN); pregnancy; & electrolyte panel

Patient Counseling Information

- Used to treat high blood pressure, HF, and heart function after a heart attack. | Caution dizziness & orthostatic hypotension. | Potassium containing **salt substitutes** are to be avoided.

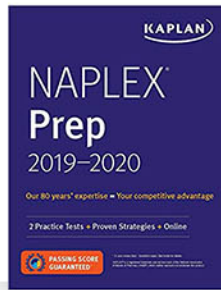
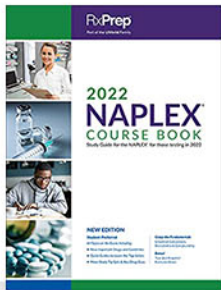
Reference(s)

- <https://www.drugs.com/ppa/valsartan.html>
- <https://www.webmd.com/drugs/2/drug-849/valsartan-oral/details>

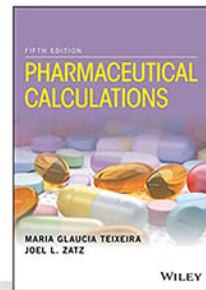
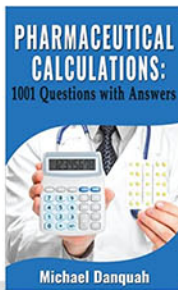
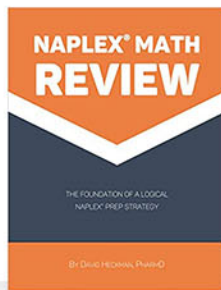
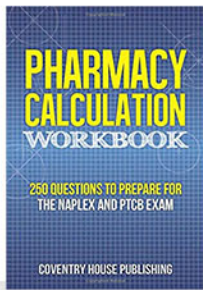


PREPARE FOR SUCCESS!

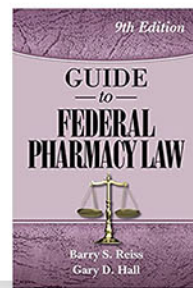
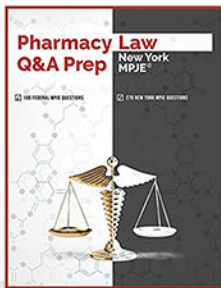
Comprehensive (NAPLEX)



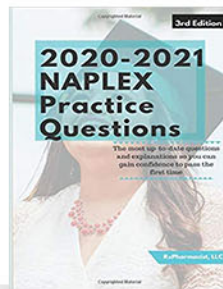
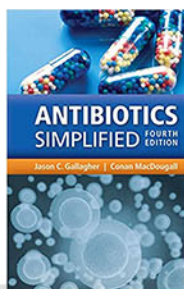
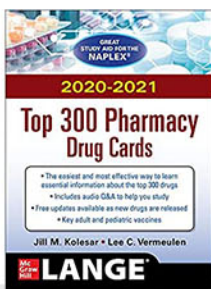
Calculations (NAPLEX)



Pharmacy Law (MPJE)



Supplemental



DISCLAIMERS

This page contains affiliate links. Buying something through a link will provide a small monetary commission to Drug Cards Daily at no cost to you! This is done to keep Drug Cards Daily going and to provide as much free content to people like you! Thank you so very much for your support! Also, images are property of their respective parties and can be removed by contacting Drug Cards Daily.

DRUG CARDS DAILY

Monday at 7 am EST
(6 am CST, 4 am PST)

HEY NEW GRAD!

So you landed that perfect job offer or got the perfect match for your PGY1 and now the **ONLY** thing standing in your way is passing the NAPLEX and MPJE.

Here are some NAPLEX & MPJE prep recommendations to help you do everything you can to **pass the first time!**

HEY STUDENT!

When I was P1 one of the best pieces of advice I got from those before me was to use a NAPLEX Prep book while learning each topic.

This helps focus your learning and the repetition helps to retain info and indirectly prepare you for the NAPLEX



@drugcardsdaily