

DRUG CARDS | DAILY



NAME(S): **Generic:** carvedilol (KAR ve dil ole) | **Brand:** Coreg, Coreg CR

PHARMACOLOGIC & THERAPEUTIC CLASS: Antihypertensive | Beta-Blocker **w/ Alpha-Blocking Activity**

DOSAGE FORM & STRENGTH: **Extended Release Capsules:** 10 mg, 20 mg, 40 mg, 80 mg | **Tablets:** 3.125 mg, 6.25 mg, 12.5 mg, 25 mg.

INDICATION(S) & DOSING(S): ADULTS

1. Hypertension (HTN):

- **[IR Tabs]** Tx range 6.25-25 mg PO bid. Initiate 6.25 mg PO bid w/ dose increases every 1-2 weeks up to 12.5 mg PO bid, then 25 mg PO bid. Max dose of 50 mg/day.
- **[ER Caps]** Tx range 20-80 mg PO qam. Initiate 20 mg PO qam w/ dose increases every 1-2 weeks to 40 mg PO qam, then 80 mg PO qam.
- **[Dosing Change from IR Tabs to ER Caps]** 6.25 mg/day IR Tabs = 10 mg/day ER Caps. Dose increases are still every 1-2 weeks.
- **[Elderly or Pts at risk of hypotension/dizziness/syncope:** Conversion is 25 mg/day IR Tabs to 20 mg/day ER Caps. If 50 mg/day IR Tabs switch to 40 mg/day ER Caps. Dose increases every 2 weeks.

2. Heart Failure (HF) w/ Reduced Ejection Fraction: Prior to treatment minimize fluid retention.

- **[IR Tabs]** Tx range 6.25 mg-25 mg PO bid. Initiate at 3.125 mg PO bid w/ dose increase every two weeks to 6.25 mg PO bid, then to 12.5 mg PO bid, then 25 mg PO bid. The max dose is 50 mg/day unless >85 kg then 100 mg/day.
- **[ER Caps]** Tx range 20-80 mg PO qam. Initiate 10 mg PO qam w/ dose increase every 2 weeks to 20 mg PO qam, then 40 mg PO qam, then 80 mg PO qam. Max of 80 mg PO qd.

3. Left Ventricular Dysfunction Post Myocardial Infarction (MI): Prior to treatment minimize fluid retention.

- **[IR Tabs]** Tx dose is 25 mg PO bid. Initiate 6.25 mg PO bid ASAP after the patient is stable. Dose increase every 3-10 days to 12.5 mg PO bid, then 25 mg PO bid.
- **[ER Caps]** Tx dose 80 mg PO qam. Initiate 20 mg PO qam ASAP after the patient is stable. Dose increase every 3-10 day to 40 mg PO qam, then 80 mg PO qam.
- **[IF Pt experiencing fluid retention/hypotension/bradycardia]** Initiate dose at 10 mg PO qam (instead of 20mg).

- **OFF LABEL** | Chronic Stable Angina; Afib/Aflutter; Early & Secondary Prevention of MI; Primary Variceal Hemorrhage Prophylaxis: *(Not discussed. Refer to most current literature)*

INDICATION(S) & DOSING(S): PEDIATRICS

● **OFF LABEL | Heart Failure w/ Reduced Ejection Fraction:**

- **[1-23 months]** Wt-based tx range 0.2-3 mg/kg/day PO divided 2-3 times daily. Initiate 0.05 mg/kg/day divided 2-3 times daily. Dose increase every 2 weeks. Max dose of 3 mg/kg/day.
- **[2-11 years]** Wt-based tx range 0.2-2 mg/kg/day PO divided bid. Initiate 0.05 mg/kg/day divided bid. Dose increase every 2 weeks. Max of 2 mg/kg/day.
- **[12 years and older]** Wt-based tx range 0.2-1 mg/kg/day PO divided bid. Initiate 0.05 mg/kg/day divided bid. Dose increase every 2 weeks. Max of 50 mg/day.



MECHANISM OF ACTION & PHARMACOLOGY

- **MOA:** Selective alpha1 adrenergic receptor antagonist. Non-selective beta1/beta2 adrenergic receptor antagonist. Racemic mixture w/ no intrinsic sympathomimetic activity. Associated effects are a reduction in cardiac output and a reduction of tachycardia (either exercise-induced, beta-agonist-induced, reflex orthostatic-related). Also a decrease in peripheral & renal vascular resistance and a decrease in heart rate & systemic vascular resistance. Additional benefits of vasodilation, decreased pulmonary capillary wedge pressure, decreased pulmonary artery pressure, decreased right atrial pressure, and increased stroke volume index. | Rapidly and extensively **absorbed** with large first pass effect. | Extensive hepatic **metabolism** via the CYP2D6, 2C9, 3A4, 2C19, 1A2, and 2E1 pathways. Extensive metabolite formation. | **Excreted** primarily in the feces. | **Half-Life elimination** in infants/children from 6 weeks to 3.5 years in 2.2 hours. In children/adolescents 5.5 to 19 years is 3.6 hours. In adults between 7-10 hours. The R-isomer is between 5-9 hours and the S-isomer is between 7-11 hours. | 90% **protein bound** primarily to albumin.

SPECIAL POPULATIONS & CONSIDERATIONS

- **Discontinuation of Therapy:** Taper off over 1-2 weeks. | **Renally Impaired:** Caution advised. Plasma concentrations b/t 40-50% higher in moderate to severe renal impairment. | **Hepatically Impaired:** Avoid usage. There is a 4-7 fold increase in concentrations in patients with severe hepatic impairment. | **Elderly:** 50% increase in plasma levels. | **Patients w/ HF:** Up to 100% AUC and Cmax increase. | **Pregnancy:** May be considered in pts w/ HF, otherwise other agents are preferred. Beta blocker exposure may inc risk for bradycardia, hypoglycemia, and respiratory depression. | **Lactation:** Consider alternative.

SIDE EFFECTS

- **Common:** Dizziness, fatigue, n/v/d, wt gain, edema, angina, anemia, inc ALT/AST, hypotension, & bradycardia.
- **Serious:** CHF, heart block, severe bradycardia, asthma/bronchospasm, SJS, SLE, leukopenia, & severe anemia.

DRUG INTERACTIONS

- **Considerations for DI:** CYP1A2/2C9/2D6 substrate, antihypertensive agent, bradycardia, & glycemic effects.
- **Contraindicated drugs of note:** Albuterol, clonidine, acarbose, alogliptin, aspirin, azithromycin, & sotalol.

MONITORING PARAMETERS

- BUN/Cr, blood glucose in diabetic pts, BP, HR, LFTs

PATIENT COUNSELING INFORMATION

- Carvedilol is approved to treat **high blood pressure** and **heart failure**.
- Carvedilol It is also used to improve chances of survival after heart attack and to prevent stroke, heart attacks, and kidney issues.
- May take **up to 1-2 weeks to get full benefit**.
- Extended release **capsules may be opened** but do not crush/chew/dissolve contents.
- Caps or tabs taken **with food** to avoid/minimized orthostatic hypotension.
- Missed dose should be taken ASAP but skipped if almost time for next dose.

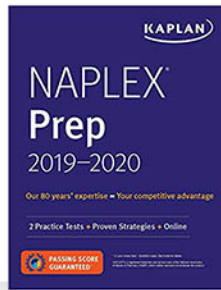
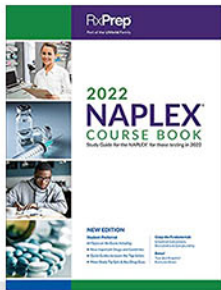
REFERENCE(S) & RESOURCE(S)

1. <https://online.epocrates.com/drugs/53310/carvedilol/Monograph>
2. <https://www.drugs.com/ppa/carvedilol.html>
3. <https://www.webmd.com/drugs/2/drug-5574/carvedilol-oral/details>

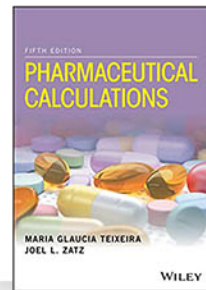
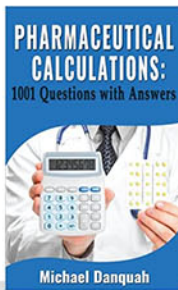
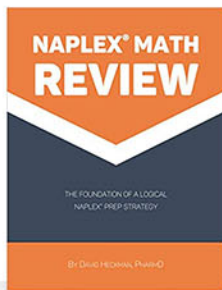
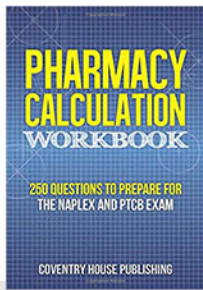


PREPARE FOR SUCCESS!

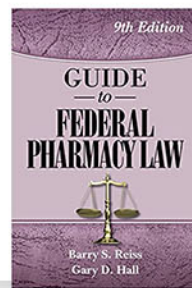
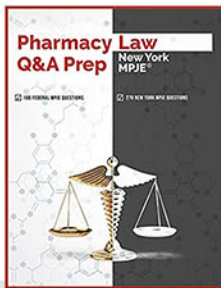
Comprehensive (NAPLEX)



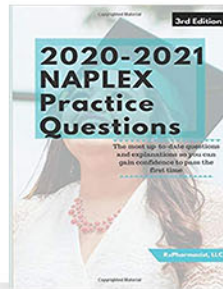
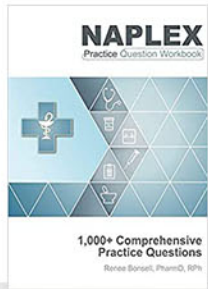
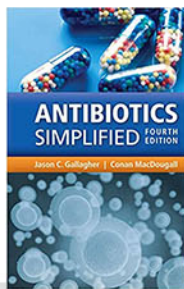
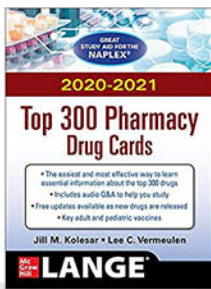
Calculations (NAPLEX)



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