

DRUG CARDS | DAILY



NAME(S): **Generic:** atenolol (a TEN oh lole) | **Brand:** Tenormin

PHARMACOLOGIC & THERAPEUTIC CLASS: Antihypertensive | Antianginal Agent | Beta-1 Selective Beta Blocker

DOSAGE FORM & STRENGTH: **Tabs:** 25 mg, 50 mg, 100 mg

INDICATION(S) & DOSING(S): ADULTS

1. **Hypertension:** Tx Range 25-100 mg PO qd. Initiate 25-50 mg PO qd w/ dose increases every 1-2 weeks up to a max of 100 mg/day. When d/c'ing gradually taper off.
2. **Angina:** Tx Range 50-200 mg PO qd. Initiate 50 mg PO qd with dose increases every week w/ a max of 200 mg/day.
3. **Post-MI Cardiovascular Event Prevention:** Tx Dose 100 mg/day PO divided 1-2 times daily. Initiate ASAP after the pt is stable.
- **OFF LABEL | Migraine Headache Prophylaxis:** Tx Range 50-150 mg PO qd. Initiate 25-50 mg PO qd up to a max of 150 mg/day.

INDICATION(S) & DOSING(S): PEDIATRICS

- **OFF LABEL | Hypertension:** Tx Range 1-2 mg/kg/dose PO qd. Initiate 0.8-1 mg/kg/dose PO qd to a max of 2 mg/kg/day.
- **OFF LABEL | Supraventricular Arrhythmias:** No optimal dose has been established w/ the Tx Range 0.3-2 mg/kg/dose PO qd. Max of 2 mg/kg/day.
- **OFF LABEL | Marfan Syndrome-Associated Aortic Dilation:** For ages 6 months and older. Tx Range 1-4 mg/kg/dose PO qd. Initiate 0.5 mg/kg/dose PO qd. The max dosing is 250 mg/day.

MECHANISM OF ACTION & PHARMACOLOGY

- **MOA:** Competitive beta-1 selective beta blocker with minimal to no effects on the beta-2 receptor unless at higher doses. | Rapid but incomplete **absorption** at ~50% | Does not cross blood-brain barrier. | Limited hepatic **metabolism**. | 50% **excreted** in the feces and ~40% in urine as the unchanged drug. | The **onset of action** if taken orally is about an hour or less with the **peak effect** occurring around 2-4 hours. | The **duration of action** is between 12-24 hours with the antihypertensive effects at around 24 hours. | The **half-life elimination** in newborns (<24 hours of age) is around 16-35 hours. In children and adolescents around 3.5-7 hours. In adults between 6-7 hours. | Atenolol is between 6-16% **protein bound**.

SPECIAL POPULATIONS & CONSIDERATIONS

- **Renally Impaired:** Clearance is related to GFR and the concern is when CrCl falls below 35. | **Elderly:** Clearance is about 50% lower and half-life elimination is longer. | Pt **Contraindications & Cautions** if sinus bradycardia, heart failure, cardiogenic shock; and caution if major surgery, diabetes mellitus, thyroid disorders, 2nd/3rd trimester pregnancy, or if CrCl <35. | **Pregnancy:** Crosses placenta and found in cord blood. May cause harm to fetus and associated w/ adverse events.

SIDE EFFECTS

- **Common:** Bradycardia, leg pain, drowsiness, vertigo, n/v, hypotension, fatigue, and cold extremities.



- **Serious:** CHF, heart block, ventricular arrhythmia, bronchospasm, SLE, and MI (if abrupt stop).

BLACK BOX WARNING: Avoid Abrupt Cessation - Patients with CAD may experience angina exacerbation, MI, and/or ventricular arrhythmias w/ an abrupt cessation of atenolol. If discontinuing taper off gradually and monitor the pt. If angina worsens or issues develop restart the treatment.

DRUG INTERACTIONS

- **Considerations for DI:** OATP2B2 substrate, antihypertensive agent, bradycardia, delays atrioventricular conduction.
- **Some contraindicated drugs & drug(s) of note:** albuterol, betaxolol, clonidine, timolol, amiodarone, amitriptyline, clozapine, desvenlafaxine, dexamethasone, piroxicam, prednisone, and trazodone.

MONITORING PARAMETERS

- Cr, BP, HR, ECG, and 10-year ASCVD risk.

PATIENT COUNSELING INFORMATION

- **Atenolol** is used in the treatment of **hypertension, stable angina**, and used to **lower the chance of death after heart attack/MI**.
- Can be taken **with or without food** and usually **taken 1-2 times daily**.
- **Avoid apple juice and orange juice** b/c they can prevent atenolol from being absorbed.
- It may take **1-2 weeks before experiencing full benefits** from atenolol.

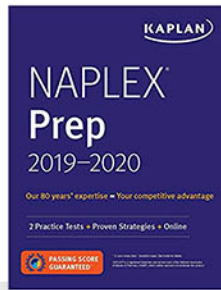
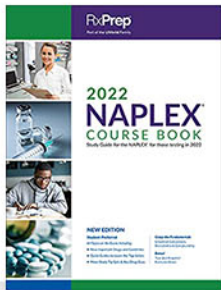
REFERENCE(S) & RESOURCE(S)

1. <https://online.epocrates.com/drugs/15010/atenolol/Monograph>
2. <https://www.drugs.com/ppa/atenolol.html>
3. <https://www.webmd.com/drugs/2/drug-11035/atenolol-oral/details>

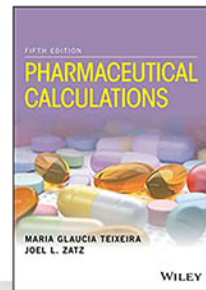
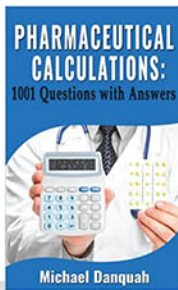
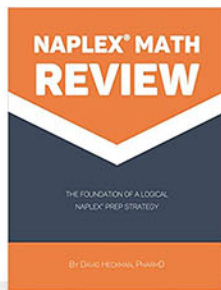
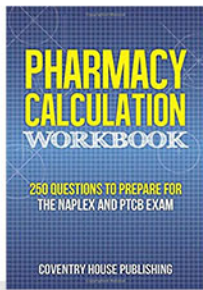


PREPARE FOR SUCCESS!

Comprehensive (NAPLEX)



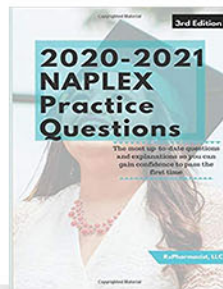
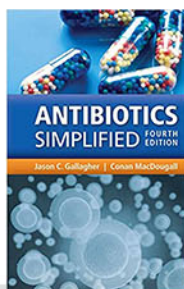
Calculations (NAPLEX)



Pharmacy Law (MPJE)



Supplemental



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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



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