



\*consider ACE Inhibitor or ARB as initial medication for patients with Chronic Kidney Disease  
Do not use an ACE Inhibitor and ARB together in the same patient.

If BP not at goal in one month, consider titrating dose up and/or adding medication from a different class above. Utilize these 3 classes before considering additional medication classes.

### Consider Additional Medication Classes

If BP not at goal or unable to tolerate the first-line medication classes above, consider adding medications from additional drug classes. Base selection on individual patient indications.

**Beta Blocker**  
Metoprolol, Atenolol

**Alpha Blocker**  
Prazosin, Doxazosin

Treat BP to targets as tolerated:  
**Systolic BP target < 140\*\***  
**Diastolic BP target < 90**

\*\* Individualize BP targets and medication therapy. Patients who are older and/or have significant comorbid conditions and cannot tolerate BP < 140/90, may require higher BP targets to prevent adverse effects (e.g. hypotension, fatigue, dizziness).

### ACE Inhibitors (ACEI)/Angiotensin Receptor Blocker (ARBs)

First line medication choice for patients with Chronic Kidney Disease

Can cause ↑ K<sup>+</sup>, ↑ creatinine; cough (with ACEI), rarely angioedema. Do not use an ACEI and an ARB at the same time.

Lisinopril (Prinivil®, Zestril®)	Start 2.5-5mg daily; usually 20-40mg daily; max 80mg daily
Losartan (Cozaar®)	Start 25-50mg daily; max 100mg daily. Consider if unable to tolerate ACEI

### Diuretics

HCTZ	Start 12.5mg daily; usually 25-50mg daily; Can ↓ K <sup>+</sup> Higher doses may be used for other indications (e.g. edema)
Chlorthalidone	Start 12.5mg daily; usually 25-50mg daily; Can ↓ K <sup>+</sup> Higher doses may be used for other indications (e.g. edema)

### Calcium Channel Blockers

Amlodipine (Norvasc®)	Start 2.5-5mg daily; usually 5-10mg daily. Consider in patients with angina or CHF
Diltiazem (Cardizem®)	<i>Note:</i> multiple formulations exist: Immediate Release (TID-QID), SR/Sustained Release (BID), CD/Controlled Delivery (daily), and LA/Long Acting (daily) Consult your local formulary to assure appropriate selection and dosing For diltiazem CD start 180-240mg daily; usually 240-360mg daily; max 480mg daily
<i>Nifedipine XL (Adalat®/Procardia®)</i>	Start 30mg daily; usually 30-90mg daily; max dose 120mg daily Caution edema, CHF, and MI

### Beta Blockers

Don't use if bradycardia or 2nd/3rd degree block. Caution in severe CHF, asthma, or renal dysfunction.

Atenolol (Tenormin®)	Start 25-50mg daily in 1-2 divided doses; usually 50-100mg/day Eliminated renally (caution Renal Failure)
Metoprolol (Lopressor®)	Start 50-100mg daily in 1-2 divided doses; usually 100-200mg/day. Max 450mg daily <i>XR formulation dosed once daily.</i> Eliminated hepatically (caution in Liver Failure)
Propranolol (Inderal®)	Start Long Acting 80mg daily or Immediate release 40mg BID; usually 120-240mg daily; max 640mg daily
Carvedilol (Coreg®) (Immediate Release Dosing)	Start 6.25mg BID; usually 12.5-25mg BID. <i>CR formulation dosed once daily.</i> Also indicated for heart failure (start at 3.125mg BID)

### Alpha Blockers

Doxazosin (Cardura®)	Start 1mg immediate release at bedtime; Max dose 16mg daily Titrate up slowly; Can cause dizziness, drowsiness, and weakness
Prazosin (Minipress®)	Start 1mg PO BID-TID (first dose at bedtime); Max dose 15mg daily Titrate up slowly; Can cause dizziness, drowsiness, and weakness

### Central Acting

<i>Clonidine (Captopres®)</i>	Start 0.1mg BID (first dose at bedtime); usually 0.1-0.3mg BID; max 1.2mg BID Titrate up slowly; Can cause sedation/dizziness/weakness; Do not stop abruptly
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Drugs in *italics* are not on the IHS National Core Formulary

Note: This is not a complete prescribing reference. This algorithm is not intended for treatment selection in children or in women who are or could become pregnant; some antihypertensive medications can cause fetal damage.

Ref: JNC 8 Panel: <http://jama.jamanetwork.com/article.aspx?articleid=1791497>.

ADA 2015 Clinical Practice Recommendations: [http://care.diabetesjournals.org/content/38/Supplement\\_1](http://care.diabetesjournals.org/content/38/Supplement_1).