

Type 2 DM – Hypertension

First Line

Therapeutic Lifestyle Changes

ACE Inhibitor: Lisinopril / Captopril
ARB (if cough/angioedema on ACEI)

Second

Diuretic
HCTZ

Third/Fourth

β-Blocker
Metoprolol / Atenolol

Calcium Channel Blocker
Diltiazem

May Consider

Clonidine

Alpha Blocker
Doxazosin/Terazosin

BP TARGET
<130/80

Treat to Achieve
This Goal

Ref: JNC VII;
www.nhlbi.nih.gov/guidelines/hypertension/index.htm

Type 2 DM – Hypertension

ACE Inhibitors (ACEI)/ARBs

Renal protective in diabetics—consider using if Micral (+), even if BP < 130/80. Can cause ↑ K⁺, ↑ creatinine; cough (not with ARB), rarely angioedema.

Lisinopril (Prinivil®/Zestril®)	Start 2.5-5mg QD; usually 20-40mg daily
Captopril (Capoten®)	Start 12.5 BID-TID; max 150mg TID
Losartan (Cozaar®)	Start 25-50mg daily; usually 100mg daily Consider if unable to tolerate ACEI
Telmisartan (Micardis®)	Start 40mg daily; usually 20-80mg daily Consider if unable to tolerate ACEI

Diuretics

HCTZ	Start 12.5-25 mg daily; usually 25mg daily Can ↓ K ⁺ . (Problems ↑ with higher doses > 25mg)
Maxzide®	Dose: ½ tab daily (to keep HCTZ dose at 25mg); 1 tab = 50mg HCTZ/75mg triamterene; K ⁺ sparing – Caution esp. in CKD

β-blockers (BABA)

Don't use if bradycardia or 2nd/3rd degree block.
Caution in Severe: CHF, Asthma, or Renal dysfunction

Atenolol (Tenormin®)	Start 25-50mg daily-BID; usually 50-100mg daily Eliminated renally (caution Renal Failure)
Metoprolol (Lopressor®)	Start 50-100mg BID; usually 100-450mg daily in 1-2 divided doses. (XR formulation dosed once daily) Eliminated hepatically (caution in Liver Failure) Preferred β-Blocker for renal dysfunction or heart failure
Carvedilol (Coreg®)	Start 3.125-6.25mg; Usual dose 25mg BID Consider in patients with heart failure

Calcium Channel Blockers (CCBA)

Diltiazem CD (Cardizem®)	Start 120mg daily; usually 120-420mg daily
Amlodipine (Norvasc®)	Start 5mg daily; 5-10mg daily consider in patients with angina or CHF
Nifedipine XL (Adalat/ Procardia®)	Consider use if patient cannot tolerate diltiazem; Start 30mg daily; usually 30-120mg daily; Caution edema, CHF, and MI
Nisoldipine (Sular®)	Consider use if patient cannot tolerate diltiazem; Start 20mg daily; usually 10-40mg daily; NMT 60mg daily; Caution edema, CHF, and MI

Alpha Blockers

Doxazosin (Cardura®)	Start 1mg immediate release HS; Max dose 16mg daily; Can cause dizziness, drowsiness, and weakness; Titrate up slowly
Terazosin (Hytrin®)	Start 1mg HS; Max dose 20mg daily; Can cause dizziness, drowsiness, and weakness; Titrate up slowly

Central Acting

Clonidine (Captopres®)	Start 0.1mg BID; usually 0.1-0.3mg BID; Can cause ↑ sedation/dizziness/weakness; Titrate ↑ slowly. Do not withdraw abruptly
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Drugs names in *italics* are not on the IHS National Core Formulary