

Type 2 DM – Hypertension

First Line:

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

Second Line:

Diuretic

Third Line:

β-Blocker
 Metoprolol / Atenolol

Calcium Channel Blocker
 Diltiazem

Fourth Line: consider adding

Clonidine

Alpha Blocker
 Doxazosin/Terazosin



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.

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| Lisinopril (Prinivil®/Zestril®) | Start 2.5-5mg daily; 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

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| 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

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| 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)

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| 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

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| 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

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| 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