




Generic/ TRADE / Strength	Comments/ Drug Interactions ¹¹ DI	Side Effects ^{8,10}	2004 CND Guidelines by CLASS ¹²	Indications <input checked="" type="checkbox"/>	Initial Dose (MAX dose)	Usual Dose \$/30days
DIURETIC Hydrochlorothiazide HCT HYDRODIURIL 25 ⁵ ,50 ⁵ mg tab	12.5-25mg effective & less SEs •evidence for ↓ morbidity/mortality; •Ineffective→CrCl<30ml/min (Avoid if CrCl<10ml/min) • If Scr>150umol/l →LASIX for volume control. DI: digoxin ↑ toxicity if K+ low ↑ lithium level, NSAID, steroid Low dose 12.5mg combinations avail.→ Accuretic, Inhibace ^{Plus} , Vaseretic, Zesoretic, Alacand ^{Plus} , Avalide, Diovan ^{HCT} , Hyzaar, Micardis ^{Plus} SHEP, ALLHAT	Low doses well tolerated but rash, allergic ^{sulf} rx, photosensitivity rx, ↑ (calcium, uric acid, glucose, cholesterol,TG) ↓ (Na, K ⁺ esp. with salbutamol, magnesium, zinc), pancreatitis & sexual dysfunction.	Diuretics: First among equals 1st line⇒uncomplicated HTN,ISH,LVH & DIABETES normal albuminuria (HCT <25mg) Alt 1st line⇒RENAL Dysfunction; 2nd line⇒SYSTOLIC Dysfunction.		6.25-12.5mg OD (25mg OD HTN: 50-100mg other)	12.5-25mg OD \$4 Diuretics: 3 months dispensed in Sask.
Chlorthalidone HYGROTON 50 ⁵ ,100 ⁵ mg tab	similar to HCT; best trial evidence @ 12.5-25mg od (minimal lipid & lyte changes,more potent & longer acting than HCT)		Useful: ↓ bone loss; effective in blacks CI: gout (symptomatic hyperuricemia), sulfa allergy, anuria, hyponatremia		12.5-25mg OD	12.5-25mg OD \$4
Indapamide LOZIDE 1.25,2.5mg tab	less effect on lipid/glucose;still THIAZIDE type;?more effect if ↓CrCl	Indapamide → headache,dizziness			1.25mg OD (5mg OD)	1.25-2.5mg OD \$12
Spirolactone 25⁵,100⁵ mg tab ALDACTONE DYAZIDE tab ⁵ →HCT 25mg/triamterene 50mg; MODURET →HCT 50 ⁵ mg/amiloride 5mg	If renal dysfunction→↑Scr,↑BUN,↑K & hyperchloremic acidosis.	↑K ⁺ esp. if CrCl<30ml/min & in diabetics ↓Na, rash, gynecomastia & abnormal menstruation	✓CHF Class III-IV BP, hyperaldosteronism, edema,cirrhosis Alt 1st line⇒SYSTOLIC Dysfx		12.5mg OD (100mg BID)	25-50mg OD \$5-8
Metoprolol LOPRESOR, BETALOC 25 ⁵ ,50 ⁵ ,100 ⁵ mg tab; SR: 100,200mg tab Acebutolol MONITAN, SECTRAL 100 ⁵ ,200 ⁵ ,400 ⁵ mg tab Atenolol TENORMIN 25,50 ⁵ ,100 ⁵ mg; TENORETIC /chlorthalidone 50/25 ⁵ ,100/25 ⁵ tab Propranolol INDERAL Reg:10 ⁵ ,20 ⁵ ,40 ⁵ ,80 ⁵ ,120 ⁵ mg tab LA: 60,80,120,160mg cap	• β1 cardioselective →,acebutolol, atenolol, bisoprolol & metoprolol •Evidence in CHF → bisoprolol, carvedilol & metoprolol • ISA Intrinsic Sympathetic Activity→acebutolol,oxprenolol & pindolol (less bradycardia, lipid changes & cold extremities but NOT recommended in angina/Hx MI ⁸) •Non-selective β blockers nadolol,oxprenolol,pindolol,propranolol,sotalol & timolol DI: amiodarone, antidiabetics, CCB synergistic, cimetidine ↑ β blocker, clonidine ^{HTN} crisis, digoxin ^{HR} ,insulins, NSAIDS ↑ BP & phenobarbital ^β blocker	fatigue,insomnia,dreams ^{vivid} ↓ HR, impotence,↓ exercise tolerance, dizzy; worsens→ PAD,CHF, Raynauds; cold extremities, bronchospasm, headache, mask & delay Sx hypoglycemia, ↑TG, ↓HDL, hallucinations, depression; & sudden withdraw→exacerbate angina/MI acebutolol also→positive antinuclear antibody test & lupus	1st line⇒ ANGINA , MI , LVH <55yr, uncomplicated HTN for age ≤60yr; +ACEI for SYSTOLIC Dysfunction; Alt⇒DIABETICS (cardioselective agents)		12.5-50mg OD (200mg BID) 100mg OD (400mg BID)	50mg BID \$13 100mg SR OD \$16 200mg BID \$22 400mg OD \$22
Useful: migraine, tremors, atrial arrhythmias, perioperative hypertension & thyrotoxicosis CI: asthma/COPD; 2 nd /3 rd degree heart block, uncompensated HF & severe PAD	•? ↑ CNS SE;↑lipids; Use: GI bleed,thyrotoxicosis,migraine & anxiety				25mg OD (200mg OD) 10-40mg BID (320mg LA OD)	50-100mg OD \$15-20 80mg BID \$12 160mg LA OD \$38
Bisoprolol MONOCOR 5 ⁵ ,10mg tab; Carvedilol COREG 3,1.25,6.25,12.5 & 25mg tab; Nadolol CORGARD 40 ⁵ ,80 ⁵ ,160 ⁵ mg tab; Oxprenolol TRASICOR 40 ⁵ ,80 ⁵ mg, SR 80,160mg tab; Pindolol VISKEN 5 ⁵ ,10 ⁵ ,15 ⁵ mg tab, VISKAZIDE 10/25 ⁵ mg,10/50 ⁵ mg/(HCT) tab; Sotalol SOTACOR 80 ⁵ ,160 ⁵ mg tab; Timolol BLOCADREN 5 ⁵ ,10 ⁵ ,20 ⁵ mg tab						
Lisinopril ZESTRIL,PRINIVIL 5 ⁵ ,10,20mg tab; ZESTORETIC 10/12,5mg;20/12,5mg;20/25/(HCT) ^{tab} Ramipril ALTACE 1.25,2.5,5,10mg cap Captopril CAPOTEN 6.25,12.5,25 ⁵ ,50 ⁵ ,100 ⁵ mg tab	If ↑K ⁺ >5.6 or ↑Scr rise >30% over baseline may warrant discontinuation. ¹ Fosinopril MONOPRIL accumulates less in renal failure. Less effective in African Americans unless add a THIAZIDE ^{2,8} DI: diuretics ^K sparing→↑K ⁺ ,lithium [↑] levels ,NSAIDS [↓] effect & potassium [↑] K	cough ^{10%} ,dry/nonproductive, loss of taste, rash esp.captopril (sulfa) headache, dizziness, ↓BP diuretics/volume depletion fatigue, ↑K ⁺ . K supplements/K sparing diuretics/renal fx & acute renal failure with bilateral renal artery stenosis,angioedema ^{0.5%} , hepatotoxicity, dysguesia,pancreatitis & blood dyscrasias.	1st line ⇒uncomplicated HTN, LVH & DIABETICS & SYSTOLIC Dysfx & MI, RENAL Dx., Past CVA/TIA combo c HCT & ALL Coronary Artery Disease pts.		2.5mg OD (40mg OD) 1.25mg OD (20mg OD) 6.25mg BID (150mg TID)	5-10mg OD \$26-30 10/12.5mg OD \$30 10→35mg OD CHF ALT 5mg OD \$34 10mg HS ^{HOPE} \$41 25mg BID \$24 50mg BID \$37
Benazepril LOTENSIN 5 ⁵ ,10 ⁵ od=\$32 ⁵ ,20 ⁵ mg tab; Cilazapril INHIBACE 1 ⁵ ,2.5 ⁵ od=\$32 ⁵ ,5 ⁵ mg tab INHIBACE PLUS 5/12.5 ⁵ mg/(HCT) tab; Enalapril VASOTEC 2.5 ⁵ ,5 ⁵ ,10 ⁵ od=\$43 ⁵ ,20mg tab, VASERETIC 5/12.5mg,10/25mg/(HCT) tab, inj; Fosinopril MONOPRIL 10 ⁵ od=\$27 ⁵ ,20mg tab; Perindopril COVERSYL 2,4 ⁵ od=\$34 ⁵ ,8mg tab COVERSYL PLUS 4/1.25mg,ndapamide;mg; Quinapril ACCUPRIL 5 ⁵ ,10 ⁵ od=\$38 ⁵ ,20,40mg tab ACCURETIC 10+20/12.5 ⁵ mg;20/25 mg/(HCT) tab; Trandolapril MAVIK 0.5,1,2 ⁵ od=\$35 ⁵ ,4mg cap						
Irbesartan AVAPRO 75,150,300mg tab; AVALIDE 150/12.5mg;300/12.5mg (HCT) tab Losartan COZAAR 25,50,100mg tab HYZAAR 50/12.5mg (HCT) tab HYZAARDS 100/25mg (HCT) tab Valsartan DIOVAN 80,160mg cap/ tab DIOVAN HCT 80 & 160/12.5mg , 160/25 (HCT) tab Candesartan cilexetil ATACAND 8 ⁵ ,16 ⁵ CALM mg tab, ATACAND PLUS 16/12.5 ⁵ mg (HCT) tab; Eprosartan TEVETEN 400,600mg, PLUS^X 600/12.5mg tab; Telmisartan MICARDIS 40 ⁵ ,80 ⁵ mg tab, PLUS 80/12.5mg (HCT) tab	If ↑K ⁺ >5.6 or ↑Scr rise >30% over baseline may warrant discontinuation. ¹ Less effective in African Americans unless add a THIAZIDE ⁸ DI: ↑ lithium;losartan→fluconazole&rifampin ↓ losartan, & ↓uric acid level; telmisartan→ ↑ digoxin level; irbesartan→ fluconazole ↑'s irb effect. COMBO: ACE & ARB ^{CALM} →signif. ↓ BP but not sig. ↓ microalbuminuria vs lisinopril ARB's are priced ~\$1.15 per tab/cap→use scored tablets ⁵ to ↓ cost.	Well tolerated in general but fatigue, headache, rash , ↓BP diuretics/volume depletion ↑ K ⁺ . K supplements/K sparing diuretics/renal fx & acute renal failure with bilateral renal artery stenosis, angioedema less than ACEI dysguesia,pancreatitis & blood dyscrasias. Less cough,headache,dizziness than ACE	1st line ⇒uncomplicated HTN,ISH,LVH & DIABETICS. Alt⇒ SYSTOLIC Dysfunction		75mg OD (300mg OD) 12.5-25mg OD (100mg OD) 80mg OD (320mg OD)	150-300mg OD \$46 50-100mg OD \$48 80-160mg OD \$45
Felodipine RENEDIL PLENDIL 2.5,5,10mg ext. release tab Amlodipine NORVASC 5 ⁵ ,10mg tab Nifedipine ADALAT Reg 5,10mg cap PA 10,20mg tab XL 20,30,60mg tab Diltiazem CARDIZEM CARDIZEM CD, TIAZAC Reg:30,60 ⁵ mg tab SR: 60,90,120mg cap CD/ER: 120,180,240,300,360 ^{Tiazac} mg cap Verapamil ISOPTIN Regular/ SR tab Reg:80,120mg tab SR: 120,180 ⁵ ,240 ⁵ mg tab CHRONOVERA: 180,240mg tablet	•less negative inotropic effects than nifedipine •Don't crush/chew •safe HF DI: carbamazepine, cyclosporin, fluconazole, grapefruit juice [↑] effect •long acting→long t _{1/2} DI: cyclosporin, fluconazole, grapefruit juice [↑] effect •may be beneficial in diastolic dysfunction •negative inotropic ^{potential} •reflex ↑HR DI: cimetidine, digoxin, grapefruit juice •Reg. caps NOT for acute ↓ BP due to assoc. of ↑ MI/stroke •negative inotropic DI: carbamazepine [↑] carb level, cimetidine [↑] diltiazem, cyclosporin [↑] cyclo level, digoxin [↑] dig level; lovastatin & simvastatin [↑] myopathy	dizzy,headache nifedipine ^{12%} , rash, flushing dose related verapamil 7% peripheral edema esp. with dihydropyridines & ↑HR dihydropyridines ↓HR diltiazem, verapamil gingival hyperplasia >20%, gynecomastia; dyspnea & pulmonary edema in pts. with LV dysfunction, as some may worsen CHF. Diltiazem also→ lupus like rash LA-Dihydropyridine →amlodipine, felodipine,nicardipine,nifedipine & nifedipine (Relatively: more peripheral vasodilation & less heart effect)	✓Felodipine HTN, ALT systolic Dysfx ✓Amlodipine HTN, Stable Angina, ALT systolic Dysfx ✓Nifedipine HTN, PA&XL form, Stable Angina, Reg& XL; Coronary Artery Spasm: Reg caps ✓Diltiazem HTN: SR, CD & Tiazac; Coronary Artery Spasm: Reg; Stable Angina: All dosage forms→ titrate Reg. ✓Verapamil HTN: Reg&SR; Stable Angina& Coronary Artery Spasm: Reg; A.Fib, SV arrhythmia, Cardiomyopathy- obstructive hypertrophic 1st line uncomplicated. LVH & ISH^{LA-DHP} Alt⇒DIABETICS & ANGINA.		2.5-5mg OD (20mg OD) 2.5-5mg OD (10mg OD) 30mg XL OD (120mg XL OD) 120mg CD OD (420mg CD OD) 120mg SR OD (480mg SR OD)	5-10mg OD ^{HT} \$31-42 5-10mg OD \$53-75 30mg XL OD \$42 20mg PA BID \$35 60mg XL OD \$62 60mg TID \$38 120mg CD OD \$36 240mg CD OD \$38 80mg TID \$31 180mg SR OD \$30 240mg CV OD \$39

5=scored tablet 8=Exception Drug Status Sk Cost=markup & fee ACE=angiotensin converting enzyme ARB=angiotensin receptor blocker Alt=alternative CD=controlled delivery CNS=central nervous system DI=drug interaction Dx=disease HCT=hydrochlorothiazide HF=heart failure HR=heart rate HTN=hypertension Hx=history ISH=isolated systolic htn K=potassium LA=Long-acting LVH=left ventricular hypertrophy MI=myocardial infarction Na=sodium PAD=peripheral arterial dx; Rx=reaction SE=side effect SR=sustained release Sx=symptom TG=triglycerides =↓dose for renal dysfx

Generic/ TRADE / Strength	Comments/ Drug Interactions ¹¹ DI	Side Effects ^{8,10} SE	2004 CND Guidelines by CLASS Indications ✓ ContraIndication CI	Initial Dose (MAX)	Usual Dose \$/30days 
Clonidine CATAPRES 0.1 ^s ,0.2 ^s mg tab	• used for acute ↓BP DI : cyclosporine,mirtazapine,TCA's CENTRAL ALPHA AGONIST (2 nd /3 rd line) →if others CI /refractory HTN	sedation,dry mouth,↓HR,depression & rebound HTN on withdrawal	CI :CHF/heart block,diabetes ^{autonomic neuropathy}	0.1mg BID (0.2mg TID)	0.1-0.2mg BID \$20-30
Methyldopa ALDOMET 125,250,500mg tab	DI : levodopa ^{BP} ,TCAs ^{BP} [Methyldopa/HCT APO-METHAZIDE 250/15,250/25; 1 tab po OD=\$14]	sedation, dry mouth, impotence, depression, hepatotoxic, lupus like Sx & ↓ platelets/RBC	1st line HTN in pregnancy	125mg BID (500mg QID) 	250mg BID \$17
Prazosin MINIPRESS 1 ^s ,2 ^s ,5 ^s mg tab	ALPHA BLOCKERS (2 nd /3 rd line) →if others CI /refractory HTN	sedation, dizziness, vertigo,headache, palpitations, ↑HR, fluid retention, weakness, nasal congestion & priapism. First dose syncope → minimize by gradual dose titration & give @HS	Useful→ for prostatism ^{8,19}	0.5mg BID (5mg TID)	2mg BID \$23
Terazosin HYTRIN 1,2,5,10mg tab	Doxazosin CARDURA 1,2 ^s ,4 ^s mg tab ALLHAT removed → due to ↑CHF/stroke	↑↑HR,aggravate angina,headache,dizzy, fluid retention,lupus like ^{>200mg/d} & hepatitis	Alt Systolic Dysfx ^{hydrallazine with isosorbide A-HeFT} CI : in left ventricular hypertrophy	1mg HS (10mg BID)	5mg HS \$23
Hydralazine APRESOLINE 10 ^s ,25,50mg tab	VASODILATOR reflex ↑HR,edema & renin Sx activation ^{often add β-blocker/diuretic}	↑↑HR,aggravate angina,headache,dizzy, fluid retention,lupus like ^{>200mg/d} & hepatitis	CI : in left ventricular hypertrophy	10mg QID (50mg QID) 	25mg QID \$31
Labetalol TRANDATE 100 ^s ,200 ^s mg tab	ALPHA & BETA BLOCKADE ↓BP more than other β-blockers	postural hypotension & hepatotoxicity ^{more than other β-Blockers 7}	Used in pregnancy CI : as per β-Blockers above	100mg BID (400mg TID)	200mg BID \$28

2004 CND Recommendations: Disease & Risk Factors (consideration for ALLHAT) ^{2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20} **Lifestyle changes** for DIET^{↓Na,DASH}, EXERCISE, ↓ alcohol use & stop SMOKING!

DISEASE or RISK FACTOR	1 ST LINE INITIAL THERAPY	SECOND STEP THERAPY	NOTES & CAUTIONS
Uncomplicated Hypertension {Hypertension without other compelling indications}	Thiazide like diuretic (eg HCT or chlorthalidone ^{12,5-25mg od}), β blocker (for age ≤60 years); ACE inhibitor, ARB ^{not rec. in blacks unless compelling indication 2,8} CCBs →LA-DHP {Consider: ASA ^{esp. if >50yr} & statins ^{↑risk pts} }	COMBINATIONS of 1 st line drugs	α blockers <u>not</u> recommended as initial therapy (If used may consider additional antihypertensive agent). Monitor for Hypokalemia: seldom if using low dose thiazide (K ⁺ sparing diuretics rarely needed)
Isolated Systolic Hypertension (ISH)	Thiazide like diuretic (eg HCT or chlorthalidone ^{12,5-25mg od}), Calcium channel blockers →LA-DHP, ARBs	COMBINATIONS of 1 st line drugs	Hypokalemia →seldom if using low dose thiazide (K ⁺ sparing diuretics rarely needed)
Diabetes mellitus with nephropathy (albuminuria ≥ 30mg/day)	ACE inhibitor or ARBs (Evidence from IDNT irbesartan/ RENAAL losartan)	Addition of one or more: Thiazide (HCT ≤ 25mg od), β blocker (cardioselective ^{acebutolol, atenolol, bisoprolol & metoprolol}), Long acting calcium channel blockers (amlodipine had less kidney protection than ramipril or metoprolol ^{AASK})	If Scr 150 umol/l, use a loop diuretic rather than thiazide if needed to reduce edema. (If CrCl <30ml/min →thiazide diuretic less effective) MAY consider ACEI + ARB combination ^{CALM, COOPERATE}
Diabetes mellitus without nephropathy (albuminuria < 30mg/day)	ACE inhibitor, ARBs or Thiazide diuretic (Thiazides an option given ALLHAT results)	Combination of 1 st line drugs or addition of: β blocker (cardioselective ^{acebutolol, atenolol, bisoprolol & metoprolol}), Long acting calcium channel blockers	Low dose thiazides have evidence for CV outcome benefits in diabetes & minimal effect on glucose. ALLHAT included >15,000 patients ^{2,13} with diabetes, the largest antihypertensive trial ever in this population.
Diabetes mellitus without nephropathy & with systolic hypertension	ACE inhibitor or ARBs (or Thiazide diuretic ^{ALLHAT}) Alternatively → Calcium channel blockers →LA-DHP		
Angina, stable	β blocker (strongly consider adding ACE inhibitors)	Long acting calcium channel blockers	Vasospastic angina →long acting CCB (avoid β-blocker). AVOID short-acting nifedipine.
Prior MI	β blocker and ACE inhibitors	Combinations of additional agents	
Systolic Dysfunction (Heart Failure)	ACE inhibitor (ARBs ^{if ACE contraindicated or not tolerated}), β blockers (bisoprolol, carvedilol ^{COMET} , metoprolol), & spironolactone ^{Class III-IV}	ARBs or (Hydralazine + isosorbide dinitrate ^{A-HeFT 21}), Amlodipine or felodipine (helpful in diastolic dysfx; but ↑ HF ^{ALLHAT}), thiazide/loop diuretic as additive Tx.	AVOID non-dihydropyridine calcium channel blockers (eg. diltiazem & verapamil)
Past Cerebrovascular Accident or TIA	ACE inhibitor & diuretic Combination (↓ BP after acute phase to ↓ recurrent cerebrovascular events)	Antihypertensives may ↑ death in acute TIA/stroke but ↓ long term risk. Evidence supports {chlorthalidone or amlodipine ^{ALLHAT} }, {perindopril + indapamide ^{PROGRESS} }, {losartan +/- HCT ^{LIFE} }, {ramipril ^{HOPE} } & {diltiazem ^{NORDIL} }.	
Renal disease	ACE inhibitor (diuretics as additive therapy)	Combinations of agents (including ACEI + ARB) (If ACE intolerance →Angiotensin receptor blocker)	AVOID ACE if bilateral renal artery stenosis. Loop diuretics with advanced disease.
Left Ventricular Hypertrophy (LVH)	LVH: ACE inhibitor, ARBs, LA-DHP, diuretics, β blocker ^{<55yr}	Does not affect initial treatment recommendation	LVH →AVOID hydralazine & minoxidil.
Dyslipidemia	Dyslipidemia & PAD -Does Not affect initial treatment		PAD →AVOID β blocker in pts with severe disease.
Peripheral Arterial Disease (PAD)	In LVH patients → losartan ↓ stroke (NOT CV death or MI) vs atenolol (5% vs 6.7%; NNT=59) ^{LIFE Lancet 2002}		PAD → CCB useful option (eg. Raynaud's).

ACE=angiotensin converting enzyme ARB=angiotensin receptor blocker CCB=calcium channel blocker HCT=hydrochlorothiazide HF=heart failure TIA=transient ischemic attack **LA-DHP** Long-Acting Dihydropyridines: amlodipine, felodipine, nifedipine, nimodipine.

Drugs which ↑ BP: appetite suppressants, caffeine, cocaine & other illicit drugs, cyclosporin, erythropoietin, fludrocortisone, licorice in chewing tobacco, nasal decongestant, nicotine, NSAID's & COX-2, oral contraceptives, steroids ^{adrenal}, sympathomimetics, tacrolimus & venlafaxine.

CONTRAINDICATIONS: **DIURETICS:** symptomatic gout, sulpha allergy, anuria, hyponatremia. **β-BLOCKERS:** asthma, 2nd or 3rd degree heart block, severe bradycardia, uncompensated heart failure, severe PAD.

ACEI/ARB: bilateral artery stenosis (or solitary kidney stenosis if only 1 kidney), history of angioedema, pregnancy-especially 2nd & 3rd trimester.

CCB: systolic BP <90, recent MI with pulmonary edema, sick sinus syndrome or 2nd/3rd degree AV block, systolic dysfunction/HF (especially diltiazem & verapamil).

MONITOR: urinalysis, CBC, lytes, calcium, BUN/Scr, ECG, fasting glucose & lipids. {Baseline: rule out secondary causes ie. Mineralocorticoid esp. if K⁺ is low; assess end-organ damage & identify CV risk factors}

PROBLEM COMBO'S: •hydralazine and diuretic ⇒stimulate renin & sympathetic activity unless used with β-blocker •verapamil or diltiazem with a β-blocker ⇒negative effects on heart (e.g. ↓ heart rate & ↓ cardiac output)
•β-blocker and clonidine ⇒ concern about rebound hypertension if clonidine withdrawn abruptly •CCBs and α-blockers ⇒ potential for excessive hypotension; increased risk of falls, etc.

SYNERGISTIC COMBO'S: **AB ↔ CD DIURETICS** →with β-Blocker & ACEI, ARB **β-BLOCKER** →with diuretics & CCB (+ACEI if post MI/HF) **ACEI or ARB** →with diuretic & CCB **CCB** → with β-Blocker & ACEI

RISK Factors: ^{13,22} ↑ Cholesterol: ↑LDL (ApoB/ApoA1 ratio studied in INTERHEART), Smoking, Diabetes, ↑BP esp. systolic, **Abdominal obesity: waist/hip ratio** (δ ≥0.95; ♀ ≥0.9), BMI >25, Waist size ¹⁵ (δ >102cm, 40inch; ♀ >88cm, 35inch), **stress & depression;** lack of vegetables, fruits, exercise (30-45mins 3-5x/week or more) & alcohol (0-2drinks/d ♂=14/week ♀=9/week): Low HDL ≤1. Family history of premature heart disease ¹⁵ (Age: ♂ <55, ♀ <65). Age (δ >55, ♀ >65) & Microalbuminuria ¹⁵.

TARGETS UNCOMPLICATED HTN ⇒BP 140/90 **ISH** ⇒SBP 140-160 **HOME BP Measurement** ⇒BP 135/85 **RENAL Dysfunction/DIABETES** ^{no proteinuria} ⇒BP 130/80 **RENAL Dysfunction/DIABETES** ^{proteinuria >1g/d} ⇒BP 125/75

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- ³ 2001 Canadian Hypertension Recommendations: What's New & What's Not so New but is Still Important. *CJHP* 2002;55:4651.
- ⁴ FA McAlister, M Levine, KB Zarnke, et al. The 2000 recommendations for the management of hypertension. *Can J Cardiol* 2001; 17(5):543-559.
- ⁵ 1999 Canadian recommendations for the management of hypertension. *CMAJ* 1999;161(Suppl):S1-S16.
- ⁶ **1999 World Health Organization**—International Society of Hypertension Guidelines:Management of Hypertension. *J Hypertens* 1999;17:151-183.
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- ⁹ Drugs in Pregnancy & Lactation, 6th Ed. Briggs GE, et al. Wilkins; Baltimore, MD.
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- ¹¹ Hansten & Horn's Drug Interactions: Analysis & Management-Facts & Comparisons 2003.
- ¹² **Treatment Guidelines: Drugs for Hypertension** from The Medical Letter Feb **2003**.
- ¹³ The **2004 Canadian** Hypertension Education Program **Recommendations** www.chs.md
- ¹⁴ ALLHAT Working Group. Major cardiovascular events in hypertensive patients randomized to doxazosin vs chlorthalidone: the antihypertensive and lipid-lowering treatment to prevent heart attack trial (**ALLHAT**). *JAMA* 2000;283:1967-75.
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- ¹⁸ Blood Pressure Lowering Treatment Trialists' Collaboration. Effects of different blood-pressure regimens on major cardiovascular events: results of prospectively-designed overviews of randomised trials. *Lancet* 2003; 362: 1527-35
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