

2014 Hypertension Guidelines

Guideline	CHEP (CAN)	ASH/ISH (US)	JNC-8 (US)
Targets			
General Including CKD w/o proteinuria		140 90	
Elderly		150	
	Caution <60 in frail elderly and CAD		90
Age		80+	60+
Diabetes	130 80	140 90	
Diagnosis			
Clinic	160/100 × 3 visits 140/90 × 5 visits or 3 visits if diabetic		Same as targets
Ambulatory	135/85 waking 130/80 24h		Not defined
Home	135/85		Not defined
First-line treatment			
Thiazide		All patients	
CCB		All patients	
ACEI/ARB	Non-black	<60 years	Non-black
β-Blocker	<60 years		Not first-line

Notes:

- Elderly: treating adults 60+ to SBP <150 reduces cerebrovascular events, coronary heart disease, heart failure, and overall mortality
 - HYVET: 80+ with SBP >160 treated with indapamide ± perindopril to goal of SBP <150
 - Syst-Eur: 60+ with SBP >160 treated with enalapril + HCTZ to goal of SBP <150
 - SHEP: 60+ with SBP >160 treated with chlorthalidone + atenolol to SBP 140-159 (depending on baseline)
 - JATOS (ages 65-85) and VALISH (ages 70-85) found no benefit of treating to <140 compared to higher targets
- Diabetics:
 - SBP <140 for diabetics is only expert opinion because there is no evidence of benefit of a lower target in diabetics (e.g. UKPDS targeted <150, ACCORD showed no benefit of <120 versus <140)
 - DBP <80 for diabetics is based on HOT and UKPDS, but diabetics were an 8% subgroup of HOT and UKPDS compared DBP <85 versus <105, therefore it is unclear whether treating to <80 has benefit over <90
- The omission of β-blockers as a first-line treatment is based on insufficient evidence of benefit in essential hypertension with no other compelling indication, and some evidence of inferiority to other first-line treatments (versus CCB in ASCOT and versus ARB in LIFE)
- Drugs with evidence of morbidity/mortality benefit in essential hypertension:
 - Thiazide: hydrochlorothiazide, chlorthalidone, indapamide
 - CCB: amlodipine, felodipine, nifedipine, diltiazem
 - ACEI: lisinopril, enalapril, perindopril, benazepril, captopril
 - ARB: valsartan

Canadian Diabetes Association Guideline Update

Update	2008	2013	Rationale
Diagnosis	FPG ≥ 7 , 2hPG in OGTT or Random PG ≥ 11.1	As before + A1C ≥ 6.5	A1C ≥ 6.5 predicts retinopathy as well as FPG and 2hPG
Target	FPG 4-7, 2hPG 5-10, A1C ≤ 7	As before + FPG 5-12, A1C ≤ 8.5 in some situations	Expert opinion
Time to target	6-12 months	3-6 months	Maximum effect of oral therapy is seen in 3-6 months
First step	A1C < 9 : lifestyle alone \times 2-3 months A1C ≥ 9 : metformin \pm additional agent or insulin	A1C < 8.5 : lifestyle \pm metformin \times 2-3 months A1C ≥ 8.5 : metformin \pm additional agent or insulin	Expert opinion
Statin	M ≥ 45 and F ≥ 50 , or younger if "high risk"	≥ 40 years or < 40 if macro/microvascular disease or Type 1 for > 15 years	≥ 40 and macrovascular based on HPS and CARDS, microvascular expert opinion
ACEI/ARB	M ≥ 45 and F ≥ 50 , or younger if "high risk"	≥ 55 years or < 55 if macro/microvascular disease	≥ 55 and macrovascular based on 2012 meta-analysis, microvascular expert opinion
Antiplatelet	Secondary prevention, primary on individual basis	Secondary prevention only	No evidence of primary prevention and likely increased GI bleed risk in diabetics

Notes:

- Guidelines are for Type 2, most are applicable to Type 1 but may not be evidence-based
- FPG 5-12 and A1C ≤ 8.5 target for frail elderly
- A1C ≤ 8.5 target for limited life expectancy, functional dependency, high ischemic event risk, multiple comorbidities, recurrent hypoglycemia or hypoglycemia unawareness, inability to reach A1C ≤ 7 even on intensified basal-bolus insulin