

# HYPERTENSION GUIDELINES

## 2014 EVIDENCE-BASED GUIDELINE FOR THE MANAGEMENT OF HIGH BLOOD PRESSURE IN ADULTS – REPORT FROM THE PANEL MEMBERS APPOINTED TO THE EIGHTH JOINT NATIONAL COMMITTEE (JNC 8)

The new guideline has simplified the treatment of hypertension. Patients are categorized according to age and the presence of diabetes (DM) or/and chronic kidney disease (CKD). Definitions of hypertension and prehypertension are not addressed, but thresholds for pharmacologic treatment are defined. Lifestyle recommendations should follow the Recommendations of the Lifestyle Work Group. Pharmacologic treatment should be initiated using one or more agents from 4 medication classes – ACE inhibitors, ARBs, CCBs or thiazide-type diuretics. These agents should be titrated to the target dose (see table below). In black hypertensive patients, initial therapy should include a CCB or thiazide-type diuretic. Patients with CKD should be started on an ACE inhibitor or ARB. If patients do not reach goal BP, add another drug from the 4 recommended drug classes, but do not combine an ACE inhibitor with an ARB. Note that beta-blockers are not among the initial recommended drug classes.

### LIST OF DRUGS AND THE TARGET DOSES USED IN CLINICAL TRIALS

DRUG	INITIAL DAILY DOSE (MG)	TARGET DOSE (MG)	# OF DOSES PER DAY
------	-------------------------	------------------	--------------------

#### ACE Inhibitors

Captopril	50	150-200	2
Enalapril	5	20	1-2
Lisinopril	10	40	1

#### ARBs

Eprosartan	400	600-800	1-2
Candesartan	4	12-32	1
Losartan	50	100	1-2
Valsartan	40-80	160-320	1
Irbesartan	75	300	1

#### Beta-Blockers

Atenolol	25-50	100	1
Metoprolol	50	100-200	1-2

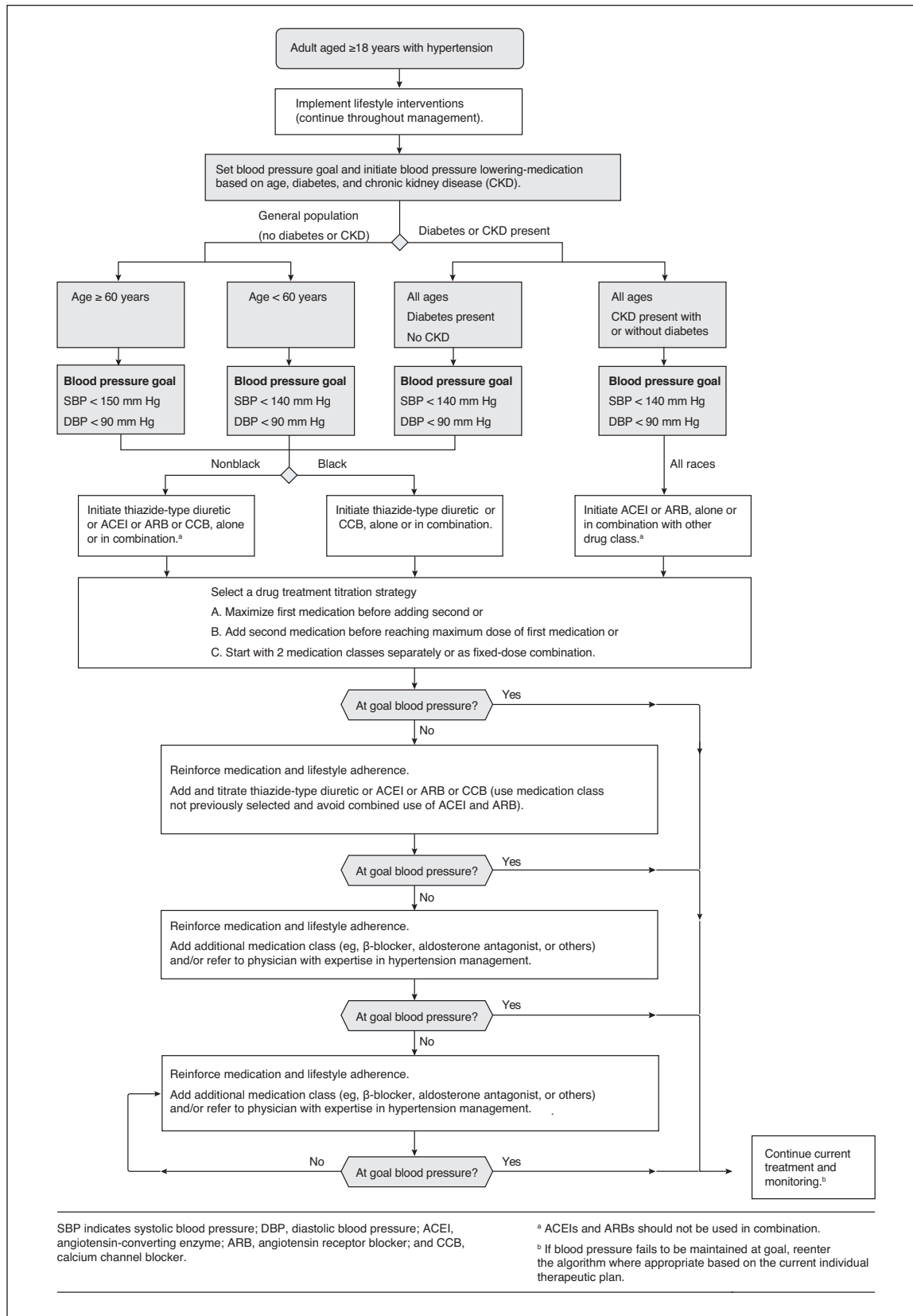
#### CCBs

Amlodipine	2.5	10	1
Diltiazem extended-release	120-180	360	1

#### Thiazide-Type Diuretics

Chlorthalidone	12.5	12.5-25	1
Hydrochlorothiazide	12.5-25	25-50	1-2
Indapamide	1.25	1.25-2.5	1

## HYPERTENSION GUIDELINE MANAGEMENT ALGORITHM



Below is a summary of three appropriate strategies for the pharmacologic management of hypertension. The specific strategy chosen will be patient and provider-specific.

STRATEGY	DESCRIPTION	DETAILS
A	Start 1 drug, titrate to maximum dose, and then add a 2 <sup>nd</sup> drug	<p>If goal BP is not achieved with the 1<sup>st</sup> drug, titrate the dose of the initial drug to the maximum recommended dose to achieve goal BP. If goal BP is not achieved with 1 drug, add a 2<sup>nd</sup> drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic) and titrate up to the maximum recommended dose of the 2<sup>nd</sup> drug to achieve goal BP.</p> <p>If goal BP is not achieved with 2 drugs, select a 3<sup>rd</sup> drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic), avoiding the combined use of ACE inhibitors and ARBs. Titrate the 3<sup>rd</sup> drug up to the maximum recommended dose to achieve goal BP.</p>
B	Start 1 drug and then add a 2 <sup>nd</sup> drug before achieving maximum dose of the initial drug	<p>Start with 1 drug then add a 2<sup>nd</sup> drug before achieving the maximum recommended dose of the initial drug, then titrate both drugs up to the maximum recommended doses of both to achieve goal BP. If goal BP is not achieved with 2 drugs, select a 3<sup>rd</sup> drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic), avoiding the combined use of an ACE inhibitor and ARB. Titrate the 3<sup>rd</sup> drug up to the maximum recommended dose to achieve goal BP.</p>
C	Begin with 2 drugs at the same time, either as separate pills or a combination pill	<p>Start with 2 drugs simultaneously, either as 2 separate drugs or as a combination pill. Some committee members recommend starting therapy with <math>\geq 2</math> drugs when SBP is <math>&gt; 160</math> mmHg and/or DBP is <math>&gt; 100</math> mmHg, or if SBP is <math>&gt; 20</math> mmHg above goal and/or DBP is <math>&gt; 10</math> mmHg above goal. If goal BP is not achieved with 2 drugs, select a 3<sup>rd</sup> drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic), avoiding the combined use of ACE inhibitors and ARBs. Titrate the third drug up to the maximum recommended dose.</p>