

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 |

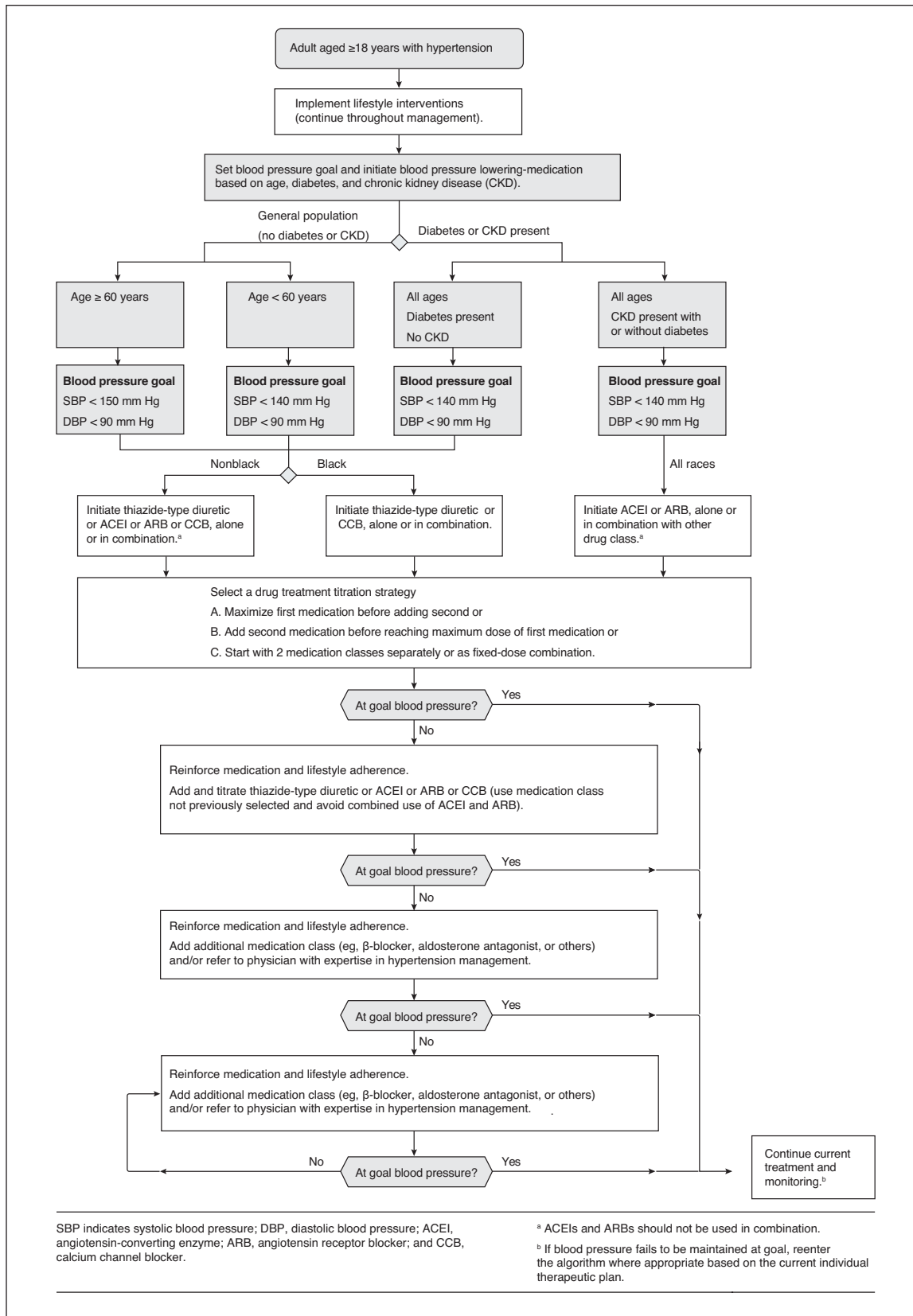
CCBs

| | | | |
|----------------------------|---------|-----|---|
| 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 nd drug | <p>If goal BP is not achieved with the 1st 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 2nd drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic) and titrate up to the maximum recommended dose of the 2nd drug to achieve goal BP.</p> <p>If goal BP is not achieved with 2 drugs, select a 3rd drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic), avoiding the combined use of ACE inhibitors and ARBs. Titrate the 3rd drug up to the maximum recommended dose to achieve goal BP.</p> |
| B | Start 1 drug and then add a 2 nd drug before achieving maximum dose of the initial drug | <p>Start with 1 drug then add a 2nd 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 3rd drug from the list (ACE inhibitor, ARB, CCB or thiazide-type diuretic), avoiding the combined use of an ACE inhibitor and ARB. Titrate the 3rd 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 ≥ 2 drugs when SBP is > 160 mmHg and/or DBP is > 100 mmHg, or if SBP is > 20 mmHg above goal and/or DBP is > 10 mmHg above goal. If goal BP is not achieved with 2 drugs, select a 3rd 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> |