

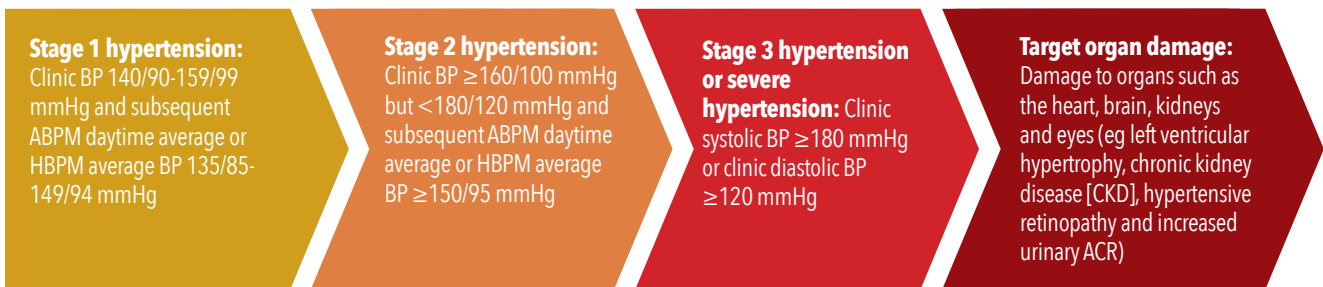
## DIABETES AND HYPERTENSION

### BACKGROUND

- Hypertension is twice as common among people with diabetes as in the general population.
- People with hypertension and diabetes are at significantly increased risk of developing coronary heart disease, congestive heart failure and stroke compared with the general population.
- According to the National Diabetes Audit 2017/18, 25% of people with type 1 diabetes and 26% of those with type 2 diabetes (T2D) did not attain the NICE blood pressure (BP) target ( $\geq 140/80$  mmHg).

### BLOOD PRESSURE: MEASUREMENT AND TARGETS

- NICE's standard definition of hypertension is BP  $\geq 140/90$  mmHg.
- If clinic BP is between 140/90 mmHg and 180/120 mmHg, offer ambulatory BP monitoring (ABPM) to confirm the diagnosis of hypertension.
  - If ABPM is unsuitable or not tolerated, offer home BP monitoring (HBPM).
- Whilst awaiting confirmation of a diagnosis of hypertension:
  - Undertake investigations for target organ damage: urinary albumin:creatinine ratio (ACR), bloods for HbA<sub>1c</sub>, urea and electrolytes (U&Es), total cholesterol and HDL cholesterol, and fundoscopy, and arrange for an ECG.
  - Assess CV risk using a CV risk assessment tool such as QRISK3-2018 (<https://qrisk.org/three/>).
- Confirm a diagnosis of hypertension in people with a clinic BP of 140/90 **and** ABPM daytime average or HBPM average of 135/85 mmHg or higher.
- Measure standing as well as seated BP in people with hypertension and with type 2 diabetes. In those with a significant postural drop in BP, treat to a BP target based on standing BP.



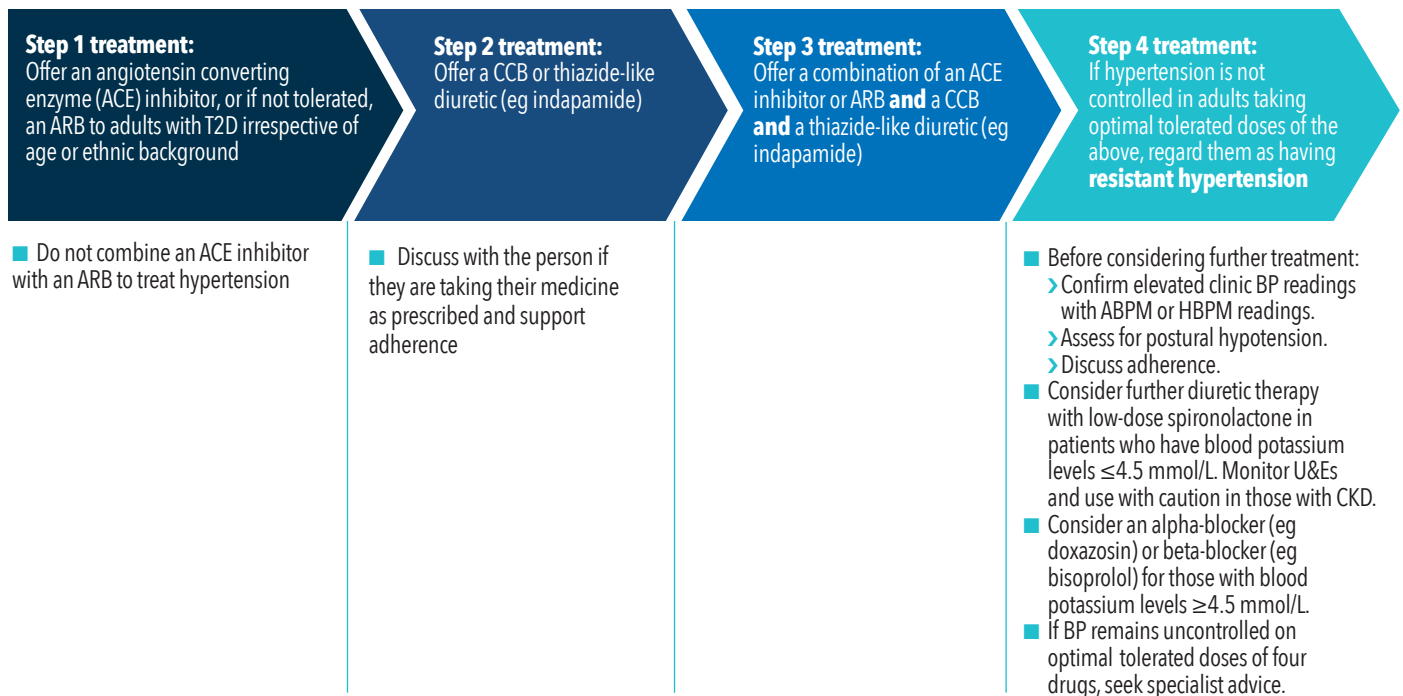
- The “white-coat effect” is where there is a discrepancy  $\geq 20/10$  mmHg between clinic and average daytime ABPM or HBPM at the time of diagnosis.
- NICE recommend reducing clinic BP to below 140/90 mmHg or ABPM or HBPM daytime average  $< 135/85$  mmHg and maintaining that level in adults with hypertension and diabetes aged under 80 years.
  - If there is diabetes and co-existing CKD, aim for a clinic BP  $< 130/80$  mmHg.

### REINFORCE LIFESTYLE ADVICE AT ALL STAGES

- Offer all patients, including those taking antihypertensives, advice about:
  - Physical activity and weight management.
  - Alcohol consumption.
  - Diet (eg DASH; see resources) and salt intake.
  - Caffeine intake.
  - Smoking cessation advice.
  - Initiatives to support lifestyle change; eg health trainer,

## STARTING ANTIHYPERTENSIVE DRUG TREATMENT

- If lifestyle changes do not reduce BP adequately, introduce antihypertensives following a step-wise approach.
- Discuss starting antihypertensive drug treatment, in addition to lifestyle advice, with adults aged <80 years with persistent stage 1 hypertension who have one or more of the following:
  - › Target organ damage
  - › Established CVD
  - › Renal disease
  - › Diabetes
  - › Estimated 10-year risk of CVD  $\geq 10\%$
- Offer antihypertensive drug treatment in addition to lifestyle advice to adults of any age with persistent stage 2 hypertension
- Use clinical judgement for people of any age with frailty or multimorbidity



## MONITORING

- Use clinic blood pressure measurements to monitor the response to lifestyle changes or drug treatment in people with hypertension.
  - › Advise people with hypertension who choose to self-monitor their blood pressure to use HBPM.
  - › Be aware that the corresponding measurements for HBPM are 5 mmHg lower than for clinic measurements.

## RESOURCES

- NICE NG136 *Hypertension in adults: diagnosis and management* (published August 2019). Available at: <https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#diagnosing-hypertension>
- British and Irish Hypertension Society [www.bihsoc.org](http://www.bihsoc.org)
- DASH eating plan [www.nhlbi.nih.gov/health-topics/dash-eating-plan](http://www.nhlbi.nih.gov/health-topics/dash-eating-plan)
- Diabetes UK Information Prescription [www.diabetes.org.uk/professionals/resources/resources-to-improve-your-clinical-practice/information-prescriptions-qa](http://www.diabetes.org.uk/professionals/resources/resources-to-improve-your-clinical-practice/information-prescriptions-qa)
- GPnotebook Shortcut "Lifestyle Modifications to Manage Hypertension" [www.gpnotebookeducation.com/GPnotebook-Shortcuts](http://www.gpnotebookeducation.com/GPnotebook-Shortcuts)

## PCDS

### Primary Care Diabetes Society

Novo Nordisk has fully funded all costs for the technical development and hosting of the hubs. Novo Nordisk has had no influence on the content of the hubs and full editorial control remains the sole responsibility of the Primary Care Diabetes Society.