First-line in hypertension

GUIDELINES for the management of hypertension in the UK were updated recently. The major change is that beta-blockers are no longer recommended as the first-line drug for hypertension in patients without compelling indications.

The new approach recommended by the British Hypertension Society is that first-line therapy in patients over 55 should be a calcium channel blocker or a thiazide-type diuretic. For patients who are younger than 55, ACE inhibitors are the first-line drug of choice.

These new guidelines are based on a review of recently published data, adverse events data and a detailed health economic analysis comparing the cost-effectiveness of the main drug classes. The cause, development and effects of hypertension and the mechanism of action of the different classes of blood pressure lowering drugs, allowing for age and ethnicity, were also taken into account.

The decision not to recommend beta-blockers for first-line therapy is based on evidence that suggests that they perform less well than other drugs, particularly in older people, and the increasing evidence that the most frequently used beta-blockers at usual doses carries an unacceptable risk of provoking type 2 diabetes. Therefore, beta-blockers have been omitted from the routine AB/CD treatment algorithm, with B now being excluded.

However, there are some compelling indications for use of beta-blockers in hypertension. The guidelines state they should be considered in:

- Women of childbearing potential
- Patients with evidence of increased sympathetic drive
- Patients with intolerance of or contraindications to ACE inhibitors and angiotensin-II receptor antagonists.

The guidelines also make recommendations beyond a three drug combination, where, although the evidence is less certain, they took account of existing guidelines and constructed recommendations most compatible with current good practice. The updated recommendations in the guidelines include:

- In hypertensive patients aged 55 and over, or black patients of any age, first choice of initial therapy should be either a calcium channel blocker or a thiazide-type diuretic
- In hypertensive patients younger than 55, first choice initial therapy should be an ACE inhibitor (or an angiotensin receptor blocker if an ACE inhibitor is not tolerated)
- If initial therapy was with an ACE inhibitor, then add a calcium channel blocker or a thiazide-type diuretic

**Treatment algorithm for newly diagnosed hypertension**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Younger than 55 years</th>
<th>55 years or older or black patients* of any age</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>C or D</td>
<td>A = ACE inhibitor (angiotensin-II receptor antagonist if ACE intolerant)</td>
</tr>
<tr>
<td>Step 2</td>
<td>A + C or A + D</td>
<td></td>
<td>C = Calcium channel blocker</td>
</tr>
<tr>
<td>Step 3</td>
<td>A + C + D</td>
<td></td>
<td>D = Thiazide type diuretic</td>
</tr>
<tr>
<td>Step 4</td>
<td>Add</td>
<td></td>
<td>* Black patients are those of African or Caribbean descent (not mixed race, Asian or Chinese patients)</td>
</tr>
</tbody>
</table>

Consider seeking specialist advice

- Further diuretic therapy
- or alpha-blocker
- or beta-blocker

In measuring hypertension, the aim is to identify patients who are persistently raised above 140/90. This should be measured on three separate occasions.

Lifestyle intervention is important so patients should be asked about their diet and exercise patterns and given advice. Discourage excessive use of alcohol, coffee and other caffeine-rich products. Salt should be reduced. Advice should be given on smoking cessation.

The guidelines were launched by the National Institute for Health and Clinical Excellence (NICE) and the National Collaborating Centre for Chronic Conditions in conjunction with the BHS. Full guidelines are at: [www.nice.org.uk/CG034guidance](http://www.nice.org.uk/CG034guidance) – Geraldine Meagan