

## EDITOR'S CHOICE

## Controversies over hypertension guidelines

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The proper management of hypertension is arguably one of modern medicine's most effective preventive interventions. It's also one for which we have lots of clinical trial data, as well as a good number of well done meta-analyses. Yet as this week's *BMJ* shows, controversy about how best to diagnose and treat hypertension in adults is still alive and well.

The 2011 guidance from the UK's National Institute for Health and Clinical Excellence (NICE) has been met with a blast of criticism. This week we present two different critiques: the first suggesting that the guidelines are overcomplicated, the second that they are insufficiently evidence based. In a third article, the guidelines' authors respond.

What did the 2011 update say? It was, in fact only a partial update, focusing on areas where the evidence was deemed to have moved on since 2006. But it made several key changes to previous guidance. These included advice to use ambulatory and home blood pressure monitoring to confirm a raised clinic reading, and a different choice of drug class for first and second line treatment. In place of the well established AB/CD algorithm—angiotensin converting enzyme inhibitor or  $\beta$  blockers/calcium channel antagonist or diuretic—the updated guidance recommends ACD in people under 55: ACE inhibitor or angiotensin II receptor blocker, followed by a calcium channel blocker, followed by a thiazide-like diuretic. Patients over 55 are recommended to start on a calcium channel blocker.

Reecha Sofat and colleagues think this is overcomplicated (doi:10.1136/bmj.d8078). The most recent evidence suggests that the four drug classes are more similar than different in their efficacy and safety, they say, and that their effects in combination are additive. This means that the initial choice of

drug could rest on price, tolerability, and individual patients' characteristics.

Morris Brown and colleagues take a different tack (doi:10.1136/bmj.d8218). They say there are no outcome data from trials that justify the shift to ambulatory and home monitoring, and they are surprised by NICE's conclusion that ambulatory monitoring could cut the number of people starting on antihypertensive drugs by a quarter. "The combination of a rise, compared to previous guidance, in the blood pressure threshold for treatment and a longer interval before repeat monitoring is not plausible, evidence based, or safe," they say. They are equally concerned about the relegation of diuretics from first to third line treatment, and the recommendation to use chlortalidone, for which no suitable 12.5 mg formulation is available in the UK. Good cheap drugs such as co-amiloride are overlooked, they say.

In reply, the guideline's authors argue convincingly that the recommendations are evidence based and that this latest guidance is an evolution that will continue as more evidence accrues (doi:10.1136/bmj.e181). Both sets of critics say that, despite the many trials and meta-analyses already done, a great many questions remain. Brown and colleagues try to make the best of what they clearly see as a bad job in calling for the latest NICE guidelines to serve as a catalyst for more robust clinical trials. Sofat and colleagues call for an updated network meta-analysis, taking into account the evidence from recent large influential trials and meta-analyses.

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