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Editorial

Hypertension Guidelines: Timely New Initiatives from East Asia

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This issue of *Pulse* brings together reviews of new or pending guidelines for the management of hypertension from China, Japan, Korea and Taiwan, covering the vast populations of East Asia [1–9]. This is a most timely and welcome initiative for many reasons. The first is that Asia is experiencing the 'second-wave epidemic', as it makes the transition from infectious diseases to chronic, non-communicable diseases, especially cardiovascular disease, overweight and diabetes. The second is that the burden of cardiovascular disease is quite different in Far East Asia, compared to western societies where stroke or cerebrovascular disease is much more common than coronary disease. Furthermore, there is a much higher incidence of haemorrhagic stroke in these nations, with a more direct and steeper relationship to high blood pressure, compared to western nations where ischaemic stroke predominates. The third reason is that the last few years have seen a break in the previous consensus amongst western guidelines, which had previously recommended a target blood pressure of ≤140/90 mm Hg for most people with hypertension but <130/80 mm Hg for high-risk groups with previous vascular disease, diabetes or chronic kidney disease [10–12].

More recently, many opinion leaders have raised doubts concerning these target blood pressures, reflecting numerous reports of J curves observed with lower achieved blood pressures in post hoc analyses of major trials [13], and this has been reflected in recent guidelines from Europe and the United States [14–18]. These guidelines broadly agree that a target of <140/90 mm Hg remains appropriate for uncomplicated patients with hypertension who are below the age of 60 years, but the American guidelines, as reported by panel members from JNC8 and by the science advisory issued by AHA/ACC/CDCP [15, 16], actually recommend raising this target to <150/90 mm Hg for patients over the age of 60 years, drawing a dissenting report from some members appointed to JNC8 [19]. All these guidelines agree with the goal of <150/90 or 140–150/90 mm Hg for patients over the age of 80 years, reflecting the HYVET (HYpertension in the Very Elderly Trial) trial [20]. However, most guidelines have removed their earlier recommendations that the target should be <130/80 mm Hg in high-risk groups, apart from the ESH/ESC guidelines, which maintain a diastolic blood pressure goal of <85 mm

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Hg for patients with diabetes [18]. The other bone of contention regards recommendations for first-line drug classes, where the European guidelines retain 5 main groups [ACEI, ARB, CCB, diuretics and beta blockers (BB)], while all the others relegate BB to second line for special situations such as for patients with coronary heart disease. The NICE guidelines also differ, in that they require ambulatory blood pressure monitoring to confirm the diagnosis of hypertension before the initiation of drug treatment [17].

In this context, the time is clearly ripe for a consolidation of recommendations for the management of hypertension in the major populations of Asia. The four sets of guidelines that are reviewed in this issue of *Pulse* clearly set the pace and bring their own unique perspectives to bear upon the subject. It is not surprising that, as for the western guidelines, there are some clear differences among their many recommendations. But all are thoughtful, well researched and balanced. One area of difference, compared to the recent western guidelines, is that all four of these Asian guidelines recommend more stringent blood pressure targets for some groups of patients, albeit with some variation amongst these. The Japanese guidelines recommend a retention of the target of <130/80 mm Hg for patients with diabetes or chronic kidney disease and albuminuria [3, 7], and the Taiwan guidelines advocate this same target for patients with diabetes and proteinuric renal disease, and additionally for those with coronary disease and those receiving antithrombotic drugs for stroke prevention [5, 9]. The Korean guidelines recommend tighter targets for high-risk patients, specifically <140/85 mm Hg for patients with diabetes and <130/80 mm Hg for those with chronic renal disease and prominent albuminuria [4, 8]. The Chinese guidelines from 2011 recommend a target of <130/80 mm Hg for patients with diabetes, chronic kidney disease, or coronary disease, but not for those with stroke [2, 6]. These Asian guidelines also focus on target blood pressures for the elderly, and all four recommend a target of <150/90 mm Hg for older adults, but they differ in the ages at which this applies. For the Chinese guidelines, this target applies for subjects over the age of 65 years, for the Japanese it applies for 'late-phase elderly'. The Korean guidelines recommend a target systolic blood pressure between 140 and 150 mm Hg in patients over the age of 65 years, while the Taiwan guidelines advocate a target blood pressure of <150/90 mm Hg for elderly subjects over the age of 80 years.

Finally, there is much agreement in the recommendations for drug treatment among the guidelines, with those from China, Korea and Taiwan recommending 5 groups of first-line drugs (ACEI, ARB, CCB, diuretics and BB); the Japanese guidelines relegate BB to second line. All four guidelines recommend combination therapy, including the use of single-pill combinations, particularly in patients with very high pressures or with resistant hypertension. And all recommend the primary use of clinic blood pressures, with considerable focus on the supplementary use of home blood pressures and ambulatory blood pressure monitoring.

In summary, these four sets of guidelines [2–9] make a very timely and substantial contribution to the management of hypertension in the vast populations of Asia that are increasingly burdened by hypertension, metabolic disorders and cardiovascular disease. The four guidelines apply to populations with great similarities in the characteristics of their hypertension and their cardiovascular disease burden. As such, it is tempting to think that this initiative foreshadows a joint effort to come together as a first step in producing a set of 'Asian Guidelines'. This might well start with a set of 'Guidelines for the Management of Hypertension in East Asia' in view of the great similarities in these populations and the work already achieved by the four separate sets of guidelines represented here. It might also be helpful to enlist the support and participation of the Asian-Pacific Society of Hypertension and the Asian-Pacific Society of Cardiology. Whatever the route forward might be, these first steps, brought together in this issue of *Pulse*, represent a major contribution to improving the control of hypertension – the world's greatest killer – across the many billions of people who live in this part of the world.

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