

Hypertension With Comorbidities (CHD, CKD, CVA): Targets and Drugs

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Hypertension is often associated with various cardiovascular risk factors and is the most important attributable, but modifiable, risk factor for all-cause death and cardiovascular events worldwide. In the past 3 years, the treatment targets for hypertension became loosened from the 140/90 mmHg targets for uncomplicated hypertensive patients and 130/80 mmHg for hypertensive patients with comorbidities to 150/90 mmHg for elderly uncomplicated hypertensive patients and 140/90 mmHg for hypertensive patients with comorbidities in most Western guidelines. These loosened recommended blood pressure targets were mainly due to the lack of evidence from specifically designed prospective randomized clinical trials, despite quite a few subgroup analyses and even meta-analyses supporting the previous more stringent targets, and aroused widespread debates and uncertainties in the medical society, as well as the public. In January 2015, the Taiwan Hypertension Society and Taiwan Society of Cardiology jointly published the 2015 Taiwan Hypertension Guidelines. In this local guidelines, we endorsed the more stringent blood pressure targets: 140/90 mmHg for uncomplicated hypertensive patients, and 130/80 mmHg for hypertensive patients with coronary heart disease, chronic kidney disease with proteinuria, and prior stroke treated with anticoagulants, based on evidence from meta-analyses/randomized clinical trials in Asia and the clinical observation that Asian people are more susceptible to blood pressure-related morbidities and mortality. The recently released preliminary report of the SPRINT trial further pushes the target for hypertensive patients with coronary heart disease or chronic kidney disease to 120/80 mmHg because of reduced cardiovascular morbidity and mortality. Whether this lower target could be applied to hypertensive patients with stroke will be determined in the ESH-CHL-SHOT trial.

For hypertensive patients with coronary heart disease, all major antihypertensive drugs (ACE inhibitors, ARB, CCB, and thiazides), including beta-blockers, could be used solely or concomitantly, based on their average baseline blood pressure levels. For hypertensive patients with chronic kidney disease, renin-angiotensin-aldosterone blockers should be used as a fundamental antihypertensive drug due to its more effective reduction of intra-glomerular pressures and proteinuria. The combination of ACE inhibitor/ARB and thiazides has been shown to be more effective in reducing proteinuria. For hypertensive patients with stroke, ACE inhibitors, ARB, CCB, and thiazides are preferred antihypertensive drugs.