

## **Hypertension Management in 2021: Highlights of the upcoming 2022 Taiwan Hypertension Guidelines**

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Hypertension is the most prevalent chronic disease and the number one attributable cause of death worldwide. The general rule of thumb for the prevalence of hypertension is approximately 25% for people aged 20 years or older, 33% for people aged 40 years or older, 50% for people aged 60 years or older, and 75% for people aged  $\geq 75$  years. Usually the systolic blood pressure increases continuously as people ages, whereas the diastolic blood pressure rises till the age of 65 and then decreases. That is the reason why isolated systolic hypertension is the predominant form of hypertension in elderly populations. The underlying mechanisms for the age-related blood pressure changes are mainly due to increasing stiffness of the arterial system and the resultant increase in velocity of backward pressure waves.

Given the well-known association between systolic blood pressures and aging, people intuitively assume that higher blood pressures are “normal” in the elderly and the treatment targets for hypertension should be looser in the elderly. Nevertheless, meta-analysis clearly demonstrates that the benefits of blood pressure-lowering are consistent in people younger and older than 65 years of age. The SPRINT trial and several meta-analyses demonstrates that, regardless of age and baseline blood pressures, further reduction of systolic blood pressures from 140 mmHg to below 120 mmHg was associated with 30% reduction of major cardiovascular events. These findings lead to the adoption of a universal systolic blood pressure target of  $<130$  mmHg in the American hypertension guidelines, which is in contrast to the European guidelines. The recently published STEP trial including 8511 Chinese and Taiwanese hypertensive patients clearly replicated what had been shown in the SPRINT, reduction of systolic blood pressure down to  $<130$  mmHg was associated with 26% fewer cardiovascular events compared to keeping systolic blood pressure  $\geq 130$  mmHg. The upcoming 2022 Taiwan Hypertension Guidelines emphasize the importance of risk-based blood pressure management approach. We agree that blood pressure target of  $<130/80$  mmHg is adequate for all hypertensive patients except those at low-moderate risk (with  $<3$  risk factors and no organ damage). To obtain more accurate assessment of blood pressure profiles, home blood pressure monitoring will be recommended as the foundation throughout all phases of blood pressure management, from diagnosis to long-term care. The diagnosis of hypertension ( $<130/80$  mmHg) should be based on results of home blood pressure monitoring, conducted according to the “722” rule. Details of recent progress and the new Taiwan Hypertension Guidelines will be introduced during the Talk.