

Tip 28. (January 2018)

A new hypertension guideline with significant implications for GP's and their patients

In my May 2016 Tip (26), I reviewed the *SPRINT* trial (ref 1), which showed that in high-risk hypertensives, a group randomised to achieve a systolic blood pressure close to 120mmHg had significantly better cardiovascular outcome over 3.5 years than a group randomised to achieve a systolic blood pressure < 140mmHg.

The results of this trial (and other recent studies) have been incorporated in the latest hypertension management guideline which has been put out by a collaboration of most of the authoritative American bodies, including the *American College of Cardiologists*, the *American Heart Association*, and the *American Society of Hypertension* (ref 2.)

The guideline incorporates new definitions:

Normal = < 120mmHg + < 80mmHg

Elevated = 120 - 129 + < 80

Stage 1 = 130-139 +/- 80-89

Stage 2 = >= 140 +/- >=90

The therapeutic recommendations are for pharmacological treatment of patients with Stage 1 hypertension (130-139 +/- 80-89) whose 10 year risk exceeds 10% on the *Atherosclerotic Vascular Disease Risk Estimator* (ref 3). For patients with Stage 1 whose risk falls below that threshold, lifestyle intervention is recommended, and pharmacological treatment is recommended for all patients with Stage 2 hypertension.

The practical implication of this are enormous; - the new definition, at a stroke, increases the incidence of hypertension in US adults from 32% to 48%. (Similar for NZ). And although there is the provision for treating patients with Stage 1 hypertension whose 10-year risk is below 10%, in fact, the majority of your patients with Stage 1 will have 10-year risk > 10%.

The other important implication, of course, is that the treatment targets are now lower; < 130/80 for all, which means that existing patients will need stronger treatment.

I recommend this new guideline to you. It is based on the best and most up-to-date research available.

The take home message is that you need to diagnose hypertension in more individuals, and to aim for lower target blood pressures. Lower blood pressure in effect means more medication. In the *SPRINT* trial, the intensive treatment arm who achieved a mean systolic blood pressure of 121.5mmHg were on a mean of 3 antihypertensive drugs, compared with the standard treatment arm who achieved a mean SBP of 134.6mmHg were on a mean of 2 antihypertensive drugs.

1. The SPRINT Research Group*

A Randomized Trial of Intensive versus Standard Blood-Pressure Control. *N Engl J Med* 2015; 373:2103-2116 November 26, 2015 DOI: 10.1056/NEJMoa1511939

2. Whelton PK, Carey RM, Aronow WS et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA guideline for the prevention, detection, evaluation and management of high blood pressure in adults. *J Am Coll Cardiol*, [E-pub ahead of print]. 2017 Nov

3. <http://tools.acc.org/ASCVD-Risk-Estimator>