

The New NZ Cardiovascular Risk Guideline

This have recently been published (Feb 2009) and are available on the website

http://www.nzgg.org.nz/guidelines/0154/090202_CVD_web_pdf_Final.pdf

As with the previous guidelines, I find this document a little laissez faire on the blood pressure front.

I disagree with the principle of basing all therapeutic decisions on 5 year cardiovascular risk. Following the guideline, (if I am reading it correctly) a non-smoking 44 year old woman with a favourable lipid profile and a sustained blood pressure of 160/95 would not get antihypertensive drug therapy.

This is contrary to the JNC-7 guidelines which recommend drug therapy of hypertension in adults even in the absence of target organ damage if BP persistently exceeds 140/90. (<http://www.nhlbi.nih.gov/guidelines/hypertension/>)

5 year cardiovascular risk in a 44 year old woman (to my mind) is a somewhat nebulous concept. Average life expectancy of NZ women is 82 years. Untreated hypertension will (on average) reduce life expectancy by 5 years and most of the excess mortality (and morbidity) will occur in the later years. Is this a reason not to treat her blood pressure now?

What if she had an echocardiogram which showed left ventricular hypertrophy - would that change things? Even children with a new diagnosis of hypertension have a significant incidence of LVH on echocardiogram which is not predictable from office blood pressures or ambulatory BP monitoring¹. What if the echocardiogram shows she does not have LVH? Should we wait until she develops it, or some other evidence of target organ damage, before initiating treatment?

I have two other minor quibbles with the blood pressure section:

(1) Thiazides recommended as first choice of antihypertensive in individuals without compelling indication for other agents. There is no doubting these are valuable drugs in combination with RAS-inhibitors at all ages and as monotherapy in older individuals. They don't work particularly well though in younger individuals (< 55-60 years) as monotherapy and this has been recognised in the British Hypertension Society guidelines which recommend an ACE-inhibitor or an ARB as initial monotherapy in younger individuals. (http://www.bhsoc.org/Latest_BHS_management_Guidelines.stm)

(2) It is stated that "..the combination of an ACE-inhibitor and a thiazide diuretic is proven to reduce the incidence of stroke and other vascular events. There is insufficient evidence to determine if other BP-lowering medications/combinations are equally effective".

This would have been a contentious statement anyway (there is a big literature on the efficacy of calcium channel blockers in stroke prevention) the statement certainly does not hold after publication of the ACCOMPLISH² trial in December 2008. This showed better cardiovascular outcomes (including stroke) in high risk hypertensives treated with an ACE-I/CCB combination than those treated with ACE-I/thiazide combination.

1. Brady TM et al. Ability of blood pressure to predict left ventricular hypertrophy in children with primary hypertension. J.Pediatr.2008;152:73-8

1. Benazepril plus Amlodipine or Hydrochlorothiazide for Hypertension in High-Risk Patients. Jamerson K et al. N Engl J Med.2008; 359:2417-2428