The New NZ Cardiovascular Risk Guideline

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


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 monitoring. 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 ACCOMPLISH 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.
