

Poor evidence for lower blood pressure targets in chronic kidney disease

Adults with chronic kidney disease have little to gain from blood pressure targets below the conventional threshold of 140/90 mmHg, according to a systematic review. Guidelines currently recommend more intensive treatment to targets as low as 125/75 mmHg. The authors found little hard evidence that lower targets prevent kidney failure or save lives, and they suggest that doctors continue to use their discretion, informed by patient preferences. Lower targets can mean more drugs, at higher doses, potentially more side-effects, and closer monitoring.

The authors reviewed three good-quality trials in a total of 2 272 adults with chronic kidney disease. Patients with diabetes were seriously under-represented (usually excluded), and they urge researchers to fill this important gap as soon as possible. None of the main trials reported statistically significant benefits associated with lower target blood pressures, although one reported a 23% drop in kidney failure (95% CI, 18 - 43%) in a less rigorous follow-up study to the main trial.

Subgroup analyses hinted that some patients with proteinuria might do better with lower target blood pressures, but it wasn't clear exactly which ones. Analyses of important outcomes such as death or cardiovascular disease were too underpowered to be useful. Two more trials are ongoing and may provide more definitive guidance, say the authors. The first one completes in 2013.

Upadhyay A, et al. *Ann Intern Med* 2011 (<http://www.annals.org/content/arly/2011/03/11/0003-4819-154-8-201104190-00335.full>).

New human pathogen identified in China

A brand new infectious disease has emerged from central and north-east China after a surveillance operation identified a cluster of adults admitted to hospital with high fever, abdominal symptoms, thrombocytopenia, and leucocytopenia (severe fever with thrombocytopenia syndrome (SFTS)). After initial searches for known pathogens drew a blank, investigators isolated an unknown virus from the blood of a 42-year-old farmer who developed SFTS in June 2009. Another 170 cases of the same infection were later confirmed; 21 (12%) infected patients died.

The new pathogen turned out to be a phlebovirus in the Bunyaviridae family, a group that includes other human pathogens, such as the virus responsible for Rift Valley fever. Investigators suspected an insect vector and started molecular screening of mosquitoes and ticks. They found the new virus in a small number of *Haemaphysalis longicornis* ticks from affected provinces. *H. longicornis* is widely distributed throughout the Asia Pacific region, and can be carried by a multitude of animals including large farm animals, cats, mice, hedgehogs, possums, weasels, and yaks, and even humans.

Most of the adults infected by the new virus – designated SFTSV – were farmers who worked outdoors in wooded and hilly areas. Chinese investigators discovered cases in all 6 provinces they surveyed after the initial outbreak. They think that SFTSV is probably already prevalent in China and has been active but undetected for some time. There is no evidence that the new virus can spread from person to person.

Yu X-J, et al. *N Engl J Med* 2011; doi:10.1056/NEJMoa1010095.

Keep measuring body mass index

Measures of body fat – body mass index (BMI), waist to hip ratio, and waist circumference – are a major determinant of cardiovascular disease. Higher values for all three indicate a higher risk of heart attacks and strokes for middle-aged and older adults, and some tools for predicting these events include at least one measure of body fat. They probably shouldn't, say researchers. An analysis combining data from 58 different cohorts suggests measures of body fat, alone or in combination, add very little to formal risk prediction using age, sex, blood pressure, history of diabetes, smoking, and lipids.

This is a setback for resource-poor countries hoping to dispense with expensive cholesterol tests and use BMI instead. When added to other risk factors, BMI had a fraction of the predictive power of key serum lipids in this analysis, the fourth blockbuster cohort study in recent years to look at the relation between body fat and chronic diseases or death.

That doesn't mean we should stop weighing and measuring people, says the comment. Excess body fat is a useful (and treatable) early warning of likely trouble to come, mediated by the effect of fat on blood pressure, lipids, and glucose metabolism.

Unlike some others, the new study found that the association between fat and cardiovascular disease was equally powerful for all three measures (around 25% more disease for each standard deviation increase after adjustments for age, sex, and smoking). Moves to replace BMI with waist to hip ratio as the metric of choice may be premature, says the comment. Waist to hip ratios are notoriously hard to get right in overweight or obese adults.

Emerging Risk Factors Collaboration. *Lancet* 2011;377:1085-1095.

Economic growth fails to feed India's children

A study from India has challenged the widely held assumption that economic growth is the best way to improve the nutrition, health, and wellbeing of the country's children. The authors could find no evidence of a link between economic indicators of development and the prevalence of stunting, underweight or wasting among young children in a series of national surveys between 1992 and 2006.

Their analyses modelled measures of wealth and growth in each state against measures of nutrition in a total of 77 326 children aged up to 3 years. No consistent associations emerged from multiple models, including those fully adjusted for social and demographic factors likely to influence childhood growth.

Rapid economic growth in India has had little impact on childhood malnourishment, say the authors. Therefore it is unlikely to have much effect on child hunger and child mortality – two key Millennium Development Goals. In the last survey between 2005 and 2006, 40.2% (95% CI, 39.1 - 41.3%) of young children were underweight for their age, 45.9% (44.8 - 47.1%) were short for their age, and 22% (21 - 23%) had wasting – defined as being underweight for their height. The numbers are moving in the right direction, but slowly, say the authors. National authorities should not assume that further growth will accelerate the trend. India's new wealth has so far failed to find its way to those who need it most.

Subramanyam MA, et al. *PLoS Med* 2011;8(3):e1000424. Epub 8 March 2011.

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