

## Blood pressure in diabetes: New targets, old paradigms

Following considerable debate sparked from a series of studies, particularly the ACCORD (Action to Control Cardiovascular Risk in Diabetes) study, there appears to be a general relaxation in the blood pressure targets for individuals with diabetes. The European Society of Cardiologists (ESC) and European Association for the Study of Diabetes (EASD) guidelines for the management of cardiovascular disease in diabetes (Rydén et al, summarised on page 48) reports a target of 140/85 mmHg for people with diabetes and no complications, but a target of 130/80 mmHg for those with abnormal renal function. The frequently promulgated practice of “the lower the better” appears to have disappeared from clinical practice in the main, though may persist for certain people with nephropathy.

Whilst debate continues regarding the beneficial effects of certain therapeutic drug classes, the current guidelines, as well as a series of meta-analyses, demonstrate the primacy of lowering blood pressure when choosing which therapeutic class to prescribe. However, interfering with the renin–angiotensin system appears to reduce the development of microalbuminuria in people with hypertension and type 2 diabetes who were previously normoalbuminuric. Consequently, in the absence of coronary artery disease or pre-existing cardiovascular disease, perhaps blockers of the renin–angiotensin system may be appropriate first-line therapy for individuals with type 2 diabetes without abnormal renal function and certainly for those with proteinuria.

Whilst debate ensues regarding treatment targets and therapeutics, it is patient adherence to guidelines prescribed by their clinicians that is the crucial issue. In a further paper summarised in this edition of *Cardio Digest* on page 48 from the National Health and Nutrition Examination Survey (NHANES) 2007 to 2010 (Tang et al, 2013), cardiovascular risk factor control and adherence to recommended guidelines for lifestyle and medical therapies were evaluated in individuals with pre-existent coronary artery disease.

The retrospective analysis demonstrated that, among those surveyed, the level of adherence to guideline recommendations was 55%, 45% and 62% for beta-blockers, angiotensin-converting enzyme inhibitors/angiotensin receptor blockers, and lipid-lowering agents respectively; only 24% of individuals adhered to a combination of all three agents. Adherence to drug therapy was lower in women than in men and also in Afro-Caribbean and Hispanic populations. Lifestyle measures, such as the amount of weekly exercise taken, alcohol consumption and sodium intake, were also associated with lower adherence, i.e. drug adherence was significantly lower in participants with a low socioeconomic status who did not achieve some of the recommended lifestyle factor targets.

Thus, a significant gap still exists between the current ESC/EASD guidelines for secondary prevention and the adherence to these guidelines in terms of control for coronary heart disease risk factors. The likelihood is that such figures will probably translate to European practice, requiring more concentration on dissemination and application of such guidelines. ■

Rydén L, Grant PJ, Anker SD et al (2013) ESC Guidelines on diabetes, pre-diabetes, and cardiovascular diseases developed in collaboration with the EASD. *Eur Heart J* **34**: 3035–87

Tang L, Patao C, Chuang J, Wong ND (2013) Cardiovascular risk factor control and adherence to recommended lifestyle and medical therapies in persons with coronary heart disease (from the National Health and Nutrition Examination Survey 2007-2010). *Am J Cardiol* **112**: 1126–32



**Jiten Vora**  
*CardioDigest Editor*

**Affiliation**  
Professor of Diabetes,  
Royal Liverpool University  
Hospitals, Liverpool