

# CVD in south Asian people: Early intervention is key



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Recent epidemiological trends suggest a steady decline in cardiovascular (CV) mortality in most developed countries (Ford, 2011; Roger et al, 2012). Such improvements are, however, not uniform across all ethnic groups. People of south Asian ethnicity have a high predisposition to CV disease (CVD) compared with those of other ethnicities (Barnett et al, 2006). Data from the UK show that standardised mortality rates among south Asians are 1.5 to 2 times greater than in local white Europeans (Wild et al, 2007). The majority of these deaths can be attributed to CV causes, with people with type 2 diabetes experiencing much poorer outcomes.

A comparison of the CV outcomes in south Asians and white Europeans in the UK Asian Diabetes Study (UKADS) showed that CVD occurred much earlier in south Asians with diabetes and contributed significantly to premature mortality in this population (Bellary et al, 2010). Many studies have highlighted the differences in risk factors in south Asians and other ethnic groups and although this has led to a wider recognition that people of south Asian ethnicity are a high-risk population, it has not necessarily improved outcomes (Barnett et al, 2006). When viewed within the context that CV outcomes are improving elsewhere, these observations are extremely worrying. So, what can be done to improve the care of this population?

First, extensive research has shown that although differences in the severity of risk factors persist between ethnic groups, the main risk factors that contribute to the CV risk are the same. The INTERHEART study, which included participants from 52 countries, showed that over 80% of the CV risk can be attributed to nine common modifiable risk factors regardless of ethnicity (Yusuf et al, 2004). The study, however, identified that in south Asian people the disease occurred earlier and the burden of risk factors was greater compared with some other ethnic groups (Joshi et al, 2007). These findings emphasise the need for aggressive screening for metabolic risk factors, which could be earlier than the generally recommended age of 40 years especially when individuals present with other risk factors.

Second, despite ample evidence that effective treatment of risk factors improves outcomes (Gaede et al, 2008; Ford, 2011), many south Asians do not appear to receive appropriate therapy. Not only is the risk factor control poor, but evidence suggests that a significant proportion of south Asians do not receive essential treatment, such as statins and angiotensin converting enzyme inhibitors (Bellary et al, 2008). This problem is further exacerbated by the fact that measures such as total cholesterol may not truly reflect the extent of dyslipidaemia in south Asians. An alternative, such as the apolipoprotein B:apolipoprotein AI ratio may be a better marker and could be used to identify people at high risk (Joshi et al, 2007). While the CV benefits of intensive glycaemic control remain contentious, it has been observed that in general, south Asians have much poorer glycaemic control (Bellary et al, 2010). Although it is difficult to recommend a single target for HbA<sub>1c</sub>, tight metabolic control, especially during the early years of diabetes, may have lasting benefits in this population (Holman et al, 2008).

Third, in those with established disease, timely intervention has been shown to be associated with outcomes no different to those in other ethnic groups. Retrospective studies in individuals admitted with acute myocardial infarction have shown that the outcomes in south Asians are similar to those of other ethnicities (Albarak et al, 2012; Jones et al, 2012). These findings need to be validated in randomised controlled trials but there is no reason to suspect that south Asians respond any differently to other ethnic groups if appropriate treatments are offered.

Last, there is an urgent need to reinforce lifestyle changes and educate this population. Measures that improve diet and physical activity should be encouraged and should be an essential component of each consultation (Barnett et al, 2006). Inequalities in healthcare between people of different ethnicities have been a major concern for many years. Over the past decade our understanding of the problems in this area has improved significantly and while more research is clearly needed it is now time to put the knowledge that we have acquired so far into practice. ■