SOCIO-ECONOMIC STATUS AND MORTALITY FROM CARDIOVASCULAR DISEASE AMONG PEOPLE WITH TYPE 2 DIABETES IN SCOTLAND (2001–2007)

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Background Individuals with type 2 diabetes (T2DM) are known to be at increased risk of death from cardiovascular disease (CVD). However, the influence of socio-economic status (SES) on risk of CVD mortality among people with diabetes has not been extensively researched.

Methods Data from a population-based national diabetes register were used to investigate the associations between T2DM, SES and CVD mortality. SES was represented by quintiles of a composite area-based measure of multiple deprivation (Q1 = most deprived quintile, Q5 = least deprived). All-ages mortality risk from CVD among people with T2DM in the period 2001–2007, relative to that in the general Scottish population, was estimated using generalised linear models. Risk was estimated separately for death from ischaemic heart disease (International Classification of Diseases 10th revision (ICD10) codes I20-I25) and from cerebrovascular disease (I60-I69, G45). A separate model was fitted for each combination of sex and SES quintile; all estimates were adjusted for age.

Results Complete data were available for 224,306 people (1,009,965 person-years) who were living and had Type 2 diabetes at some point between 2001 and 2007. There were 10,590 deaths from heart disease and 4,389 deaths from cerebrovascular disease in this cohort within the period. Relative risk (95% confidence limits) of death from heart disease among men in the least and most deprived quintiles was 2.25 (1.55 to 3.26) and 1.59 (1.24 to 2.04), corresponding values for women were 3.84 (1.91 to 7.72) and 2.47 (1.69 to 3.60). The relative risk of cerebrovascular disease mortality in the least and most deprived quintiles of men was 1.35 (0.99 to 1.83) and 1.15 (0.95 to 1.40); values for women were 1.67 (1.07 to 2.60) and 1.22 (0.97 to 1.53). The interactions of T2DM with SES were not statistically significant at the conventional 5% level.

Conclusion Mortality from heart disease among people with T2DM was significantly greater than that in the general Scottish population for both sexes and at all levels of SES. Cerebrovascular disease mortality among people with T2DM was in general greater than that in the general population, though statistical significance was marginal in most SES strata. Socio-economic status did not statistically significantly modify the risk of CVD mortality associated with Type 2 diabetes.

NOTE: The author presents this work on behalf of all members of the Scottish Diabetes Research Network Epidemiology Group.