

Risk factors for myocardial infarction case fatality and stroke case fatality in type 2 diabetes: UKPDS 66.

Stevens,RJ; Coleman,RL; Adler,AI; Stratton,IM; Matthews,DR; Holman,RR

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**OBJECTIVE:** Patients with diabetes have a higher case fatality rate in myocardial infarction (MI) or stroke than those without diabetes: that is, MI and stroke are more often fatal if diabetes is present. We investigated whether the risk of MI or stroke being fatal in type 2 diabetes can be estimated using information available around the time diabetes is diagnosed.

**RESEARCH DESIGN AND METHODS:** Analyses were based on 674 cases of MI (351 fatal) that occurred in 597 of 5,102 U.K. Prospective Diabetes Study (UKPDS) patients for whom covariate data were available during a median follow-up of 7 years.

Multivariate logistic regression was used to examine differences in risk factors, measured within 2 years of diagnosis of diabetes, between fatal and nonfatal MI. Similar analyses were performed for 234 strokes (48 fatal) that occurred in 199 patients.

**RESULTS:** Patients with fatal MI had higher HbA(1c) than those with nonfatal MI (odds ratio 1.17 per 1% HbA(1c),  $P = 0.014$ ). Patients with fatal stroke had higher HbA(1c) than those with nonfatal stroke (odds ratio 1.37 per 1% HbA(1c),  $P = 0.007$ ). Other risk factors for MI case fatality included increased age, blood pressure, and urine albumin level. **CONCLUSIONS:** The risk of MI or stroke being fatal in type 2 diabetes is associated with risk factors, including HbA(1c), measured many years before onset of MI or stroke. Equations have been added to the UKPDS Risk Engine to estimate likely case fatality rates in MI and stroke.