

Life-expectancy in Individuals with Type 2 Diabetes: Implications for Annuities.

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Annuity is a purchased policy that pays a fixed yearly benefit during the life of a person. There is no final lump sum payment and no provision to pay benefits to a spouse or other survivor. Insurance companies often offer people with diabetes “enhanced impaired life annuity” at preferential rates, in view of their reduced life-expectancy. To assess the appropriateness of these rates, we estimated individual life-expectancy for 4005 subjects with established type 2 diabetes (but not known cardiovascular or other life threatening diseases) enrolled into the UK Lipids in Diabetes Study, using the United Kingdom Prospective Diabetes Study (UKPDS) Outcomes Model. Subjects were mean (SD) age 60.7 (8.6) years, systolic blood pressure 141 (17) mmHg, total cholesterol 4.5 (0.75) mM, HDL cholesterol 1.2 (0.29) mM with median (IQR) diabetes-duration 6 (3-11) years and HbA_{1c} 8.0 (7.2-9.0) %. 65% were male, 91% white Caucasian, 4% Afro-Caribbean, 5% Indian-Asian. 15% were current smokers. Mean (SD) estimated age at death was 76.6 (3.8) years compared with 81.4 (2.3) years estimated using UK Government Actuary’s Department data for a general population of the same age and gender structure. The mean difference was 4.74 (95% CI 4.66 to 4.83) years, a life-expectancy reduction of almost one quarter. The highest value annuity we identified that commences payments at age 65 years for a 60 year old man with insulin-treated type 2 diabetes investing \$200,000 did not reflect this difference, offering \$14.3k/year compared with \$12.7k/year if not diabetic. Conclusion: The UK Government Actuary’s Department data overestimate likely age at death in type 2 diabetes. Using a diabetes-specific model to estimate life expectancy could provide valuable information to the annuity industry and permit more equitable annuity rates for those with type 2 diabetes.