Diabetes screening study finds no reduction in mortality rates

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The randomised trial, which is the first ever study evaluating the effect of type 2 diabetes screening programmes on overall mortality rates in a population, assessed the number of deaths over ten years in a group of more than 20 000 patients across 32 general practices in Eastern England. The patients were all aged between 40 and 69 years, and were assessed as being at high risk of diabetes.

Researchers allocated the practices participating in the trial to one of three groups: a group where one round of screening was followed up by routine care for patients diagnosed with diabetes; a group where one round of screening was followed up by intensive management of patients diagnosed with diabetes; and a control group where no screening took place. They then tracked mortality rates in the patients studied over a period of 9.6 years on average (median).

The authors of the study found that overall mortality was not reduced in the groups where screening took place. They also found no significant difference between the screened and non-screened groups in the number of deaths specifically attributable to diabetes, cardiovascular illness, cancer, or other causes of death.

According to Dr Simon Griffin, of the MRC Epidemiology Unit at Addenbrooke's Hospital in Cambridge, UK, "The high proportion of undiagnosed cases of diabetes, the substantial number of patients with complications at clinical diagnosis, and the long latent phase of the disease are strong arguments for screening. However, in the large UK

sample that we studied, screening for type 2 diabetes in patients at increased risk of the disease was not associated with any reduction in mortality within ten years."*

"It seems that the benefits of screening might be smaller than expected and restricted to individuals with detectable disease. However, benefits to the population could be increased by including the detection and management of cardiovascular risk factors alongside the assessment of diabetes risk, performing repeated rounds of screening, and improving strategies to maximise the uptake of screening."*

The authors point out that despite the large sample size, their study has a number of limitations, including the fact that the study took place in an area of the UK of above-average affluence, and they warn that particular caution should be exercised in extrapolating the results to more socially disadvantaged communities, where the disease risk may be higher and attendance for screening is likely to be lower.

In a linked Comment, Michael Engelgau of the Centers for Disease Control and Prevention in Atlanta, Georgia, USA, writes, "Diabetes screening and diagnosis can be done with relative ease, which further escalates popular support for wide-scale screening. However, these compelling arguments overlook the screening costs, potential harms, and lack of clear evidence that screening improves health outcomes compared with current routine clinical diagnosis."

"This study increases the doubt about the value of wide-scale screening for undiagnosed diabetes alone, and deserves credit for tackling the screening quandary head-on. Nevertheless, for any one study to address the diverse factors that affect screening policies—ranging from the magnitude of population burden of disease to the capacity and effectiveness of prevention approaches—is a tall order. Screening recommendations are therefore likely to be country specific and context-

specific for the foreseeable future."

More information: Study online: www.thelancet.com/journals/lan … (12)61422-6/abstract

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