NEW FACTS ABOUT...

Diabetes Mellitus

in older adults

Diabetes mellitus is one of the most important causes of morbidity and mortality in the United States. It is very costly, accounting for approximately 2.3 million hospital admissions, 14 million hospital days, and 70 million nursing home days in 1997 alone, with direct medical expenditures estimated at $44 million.[1,2] The prevalence rate is high—approximately 16 million people, almost half of whom are undiagnosed.[3] There are 500,000 to 700,000 new cases diagnosed per year.[2] Prevalence rises dramatically with age: more than 10 percent of persons over age 65 have clinical diabetes, almost all type 2. Compared with persons the same age without diabetes, elderly diabetics have an approximately two-fold increased risk for myocardial infarction, stroke, and renal insufficiency.[4]

Applying proven processes of care to prevent, diagnose, and treat diabetes could significantly reduce morbidity and mortality among the elderly. The following are some important findings in the recent literature related to the process of care for diabetes:

The United Kingdom Prospective Diabetes Study (UKPDS) and one other randomized clinical trial of primarily middle aged individuals with type 2 diabetes have demonstrated that improving glycemic control in patients results in significantly fewer microvascular complications.[5,6]

It has been shown that controlling blood pressure in middle aged and elderly diabetic patients leads to statistically and clinically significant reductions in diabetes-related endpoints, deaths related to diabetes, strokes, and microvascular complications. In the UKPDS, control of blood pressure was as important as controlling glucose in improving outcomes.[7–11]

ACE inhibitors when given to patients with type 2 diabetes and proteinuria, whether hypertensive or normotensive, has been shown to delay: (1) increases in micro and macroalbuminaria, (2) declines in glomerular filtration rate, and (3) increases in serum creatinine.[12–16] *In hypertensive patients, beta-blockers may also delay the onset of microalbuminaria.*[6]

Cholesterol lowering therapy in patients with diabetes mellitus and known coronary artery disease has been demonstrated to decrease coronary events.[17]

The American College of Physicians has concluded that both screening for retinopathy and subsequent treatment are clearly beneficial for diabetic patients. This result is supported by two randomized clinical trials and other studies.[18–23]

Most of the clinical trial and other data are not specific to the elderly, and none are specific to individuals 80 or older. There is a need for high-quality research directly related to the elderly population. Nevertheless, many experts believe elderly patients will also benefit from better management of glucose, blood pressure, cholesterol, and early microvascular complications in the retina and kidney. There is substantial evidence, primarily from studies of non-elderly diabetic patients, that these processes are not being performed.[24–27]

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RAND

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