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## Even Mild Cognitive Impairment Appears to Substantially Increase Risk for Death, Study Suggests

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Cognitive impairment, even when detected at an early, mild stage, is a significant predictor of decreased life expectancy.

According to a new, long-term study from Regenstrief Institute and Indiana University researchers, cognitive impairment, especially at the moderate to severe stages has an impact on life expectancy similar to chronic conditions such as diabetes or chronic heart failure. Their findings, "Cognitive Impairment: An Independent Predictor of Excess Mortality. A Cohort Study" appears in the Sept. 6, 2011 issue of *Annals of Internal Medicine*.

Nearly 4,000 people between the ages of 60 to 102 years, initially seen from 1991 to 1993 by primary care physicians at Wishard Health Services, a large public hospital with community health centers in Indianapolis, participated in the study. The patients were followed for 13 years.

"Previous studies have associated cognitive impairment with an increased risk for death, but most of this work focused on patients with Alzheimer disease and subjects in research centers. The patients in our study better reflect the general public, displaying no indications of disease or mild, moderate or severe cognitive impairment," said Regenstrief investigator Greg A. Sachs, M.D., professor of medicine at the Indiana University School of Medicine, where he is the division chief of general internal medicine and geriatrics. "We found that even mild cognitive impairment, as determined by a simple screening tool in a primary care physician's office, has a strong impact on how long individuals survive on the same order as other chronic diseases."

The study followed 3,957 patients. At screening, 3,157 had no cognitive impairment, 533 had mild impairment, and 267 had moderate to severe impairment. During follow-up, 57 percent of patients with no impairment died, compared with 68 percent of those with mild impairment and 79 percent of those with moderate to severe impairment. Median survival time was 138 months for patients with no impairment, 106 months for those with mild impairment, and 63 months for those with moderate to severe impairment.

Study participants were screened for cognitive impairment using an easy-to-administer 10-question mental status questionnaire. On the basis of the number of errors patients made on this test, they were categorized as having no, mild, or moderate to severe cognitive impairment. The Regenstrief Medical Record System was used to obtain data on the patients' medical conditions, results of lab tests and other relevant information.

Cognitive impairment affects memory and thinking. Approximately 4 million to 5 million people in the United States have dementia, and the number of individuals affected is significantly higher if individuals with milder forms of cognitive impairment are included. The prevalence of cognitive impairment at all stages is expected to increase as the population ages.

The study findings have important clinical and prognostic implications beyond dementia detection, treatment and support for affected patients and their families. Reduced life expectancy in patients with cognitive impairment should be factored into medical decisions, such as advance care planning, cancer screening and prescribing of medications, especially in patients with severe impairment, the authors state.

Given that the magnitude of the risk of mild and moderate to severe cognitive impairment is similar to that of many life-limiting diseases, as well as the ease of identifying cognitive impairment by using a short screening tool, recognition of cognitive impairment in primary care practices should be given a higher priority, the study concludes.

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