- Blood clots in the lungs—was not statistically significant—there were 13 cases in those on estrogen alone and 10 in those on placebo

There was no difference in risk for or an uncertain effect for:

- Coronary heart disease: No significant difference in risk (neither increased nor decreased); 5 fewer cases (49 cases in those on estrogen alone and 54 in those on placebo). During the first two years of use, risk was slightly increased for estrogen alone, but it appeared to diminish over time
- Colorectal cancer or total cancer: No significant difference in risk (neither increased nor decreased); 1 more case for colorectal cancer and 7 fewer cases for total cancer (for colorectal cancer, 17 cases in those on estrogen alone and 16 in those on placebo; for total cancer, 103 cases in those on estrogen alone and 110 in those on placebo)
- All deaths or those for a specific cause: No significant difference in risk (neither increased nor decreased); 3 more deaths (for all deaths, 81 in those on estrogen alone and 78 in those on placebo)
- Breast cancer: Uncertain effect; 7 fewer cases (26 cases in those on estrogen alone and 33 in those on placebo). This finding was not statistically significant

The results demonstrated an increased benefit for bone fractures with 6 fewer hip fractures (11 cases in those on estrogen alone and 17 cases in those on placebo). The results were not affected by race or ethnicity, or body mass index.

Study Identifies Predictors of Alzheimer's Disease Longevity

It's among the first questions asked after someone is diagnosed with Alzheimer's disease (AD): "What can we expect?" It's a tough question that has been difficult to answer. But a new study suggests that assessing several key clinical aspects of the disease soon after diagnosis could help families and physicians better predict long-term survival in individuals with AD. These insights also could help public health officials refine cost projections and plan

services for the growing number of older Americans at risk for the disease.

Researchers from Seattle's Group Health Cooperative and the University of Washington found that in the years following diagnosis, people with AD survived about half as long as those of similar age in the U.S population. Women tended to live longer than men, surviving about six years compared to men who lived for about four years after diagnosis. But this gender gap narrowed with age. Age at diagnosis was also a factor. Those who were diagnosed with AD in their 70s had longer survival times than those diagnosed at age 85 or older. The study, funded by the National Institute on Aging (NIA) of the National Institutes of Health (NIH), appeared in the April 6, 2004, issue of the journal *Annals of Internal Medicine*.

During the study, researchers followed 521 community-dwelling men and women aged 60 and older who had been recently diagnosed with Alzheimer's disease. They were recruited from a database of 23,000 people listed in an Alzheimer's Disease Patient Registry in the Seattle area. The average follow-up period was about 5 years, with an approximate range from 2½ months to 14 years.

As they entered the study, each person was evaluated for cognitive and memory problems and examined for other conditions including heart disease, heart failure, diabetes, stroke,

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depression and urinary incontinence. They were also assessed for a history of agitation, wandering, paranoia, falls and walking difficulties. Survival was measured from the time of initial diagnosis until death or when the study ended in 2001.

When compared to the life expectancy of the general U.S. population, overall survival was lower for people with AD in all age groups. For instance, median survival was 8 years for women aged 70 diagnosed with AD, which is about half the life expectancy of similarly aged American women who do not have the disease. Similar trends were found among 70-year-old men with AD who had a median survival time of 4.4 years compared with 9.3 years for the U.S. population.

Survival was poorest among those aged 85 and older who wandered, had walking problems and had histories of diabetes and congestive heart failure. However, the difference in the life expectancy between those who were diagnosed with AD and the general population progressively diminished

with age. At 85, for example, median life expectancy for women with AD was 3.9 years after diagnosis compared to about 6 years for women who didn't have the disease. Similarly, 85-year-old men with newly diagnosed AD had a median life expectancy of 3.3 years compared to 4.7 for men of the same age who didn't have AD.

Poor scores on the initial tests of memory and cognitive performance predicted shorter survival time after diagnosis. In fact, a five-point drop in one key test, the Mini-Mental State Exam, during the first year following diagnosis, predicted up to a 66 percent increase in the risk of death after that initial year. Walking problems, congestive heart failure, and a history of falls, diabetes and ischemic heart disease were other important predictors of reduced life expectancy after AD diagnosis.

AD is an irreversible disorder of the brain, robbing those who have it of memory and, eventually, overall mental and physical function, leading to death. It's the most common cause of dementia among people over age 65.

Recent studies estimate that up to 4.5 million people currently have the disease, and the prevalence (the number of people with the disease at any one time) doubles every 5 years after the age of 65. By 2050, if current population trends continue and no preventive treatments become available, some 13.5 million Americans will have Alzheimer's disease.

NSAIDs May Hamper Fertility

In a brief editorial, doctors from the Queen Elizabeth Hospital at the University of Adelaide in Australia point out that a specific group of non-steroidal anti-inflammatory drugs (NSAIDs) affect ovulation and could have a negative impact on fertility. From both human and animal studies, they have gathered examples of the ways in which COX-2 inhibitors (NSAIDs, which include Celebrex and Vioxx) can impair fertilization, embryo development, implantation and continuing pregnancy.

Vaccine Protects Against SARS In Mice

An experimental vaccine prevents the SARS virus from replicating in laboratory mice, according to a new report in the April 1 issue of *Nature*. Scientists at the Vaccine Research Center (VRC) of the National Institute of Allergy and Infectious Diseases (NIAID), one of the National Institutes of Health, developed the vaccine. The vaccine was tested in a mouse model of SARS infection recently validated by other NIAID investigators.

The VRC scientists are preparing further experiments to evaluate the vaccine's safety and potential to induce similar immune responses in humans. The vaccine contains a small piece of SARS virus DNA, insufficient to reproduce the SARS virus yet able to stimulate a protective immune response.

Scientists found that their experimental DNA vaccine caused the immune system to produce both antibodies and cells designed specifically to defend against the SARS virus.

They also determined, however, that the antibodies alone were responsible for the dramatic reduction in virus particles in mice that received the vaccine.

The SARS virus infected 8,098 people and killed 774 worldwide between November 1, 2002, and July 31, 2003, according to the World Health Organization.