Screening Colonoscopy Not Helpful After Age 70

BY DAMIAN M C NAMARA

MIAMI BEACH — The use of colonoscopy to screen for colorectal cancer may cause net harm if continued beyond age 70, according to a clinical- and cost-effectiveness study. Fecal occult blood testing, on the other hand, remained both effective and cost-effective up until age 80 years.

Many guidelines recommend routine colorectal cancer screening for adults aged 50-75 years and individualized decisions in the elderly, including a 2008 recommendation statement from the U.S. Preventive Services Task Force (Ann. Intern. Med. 2008;149:627-37). But the effectiveness and incremental costs of continued screening among older people have not been well quantified in the literature, Dr. Sandeep Vijan said at the annual meeting of the Society for General Internal Medicine.

Colorectal cancer and polyps are clearly more common in the elderly, Dr. Vijan said. “However, potential benefits of screening are limited. If it takes a long time for a polyp to become cancer, you need a relatively long life expectancy to make polyp removal worthwhile,” Dr. Vijan said.

With that in mind, he and his colleagues developed a Markov decision model to assess the effectiveness and incremental-cost-effectiveness of screening patients with a colonoscopy once each decade after age 50 and with fecal occult blood testing (FOBT) annually.

If colonoscopy is stopped at age 60 years, life expectancy beyond age 50 is 17.1651 years and screening costs $1,554 in 2006 dollars. (All life expectancies are discounted from a value of about 27 years, based on economic present-value analysis.) If colonoscopy stops at age 70, life expectancy increases very slightly to 17.1670 years beyond age 50—“essentially a day”—and costs $1,623. But an additional colonoscopy at age 80 “actually causes harm,” Dr. Vijan said. The additional colonoscopy was associated with a decrease in life expectancy beyond age 50 to 17.1668 years and a cost of $1,648.

Also, he noted, “if a patient has actually had a colonoscopy at ages 50 and 60, then even a third one at age 70 ends up being harmful.”

The study findings suggest that FOBT screening does not cause harm, it costs more than $100,000 per life-year to continue screening beyond age 80. The findings do not apply to people with no prior screening, “so if someone is 80 and has never been screened, it might be effective.” Also, the study did not address screening of high-risk patients and did not assess complex strategies such as two colonoscopies followed by subsequent FOBT. Dr. Vijan said that alternative strategies, such as mixed testing approaches, should be evaluated in future research.

“From 66 years to 85-plus the bleeding and perforation risks double,” according to Medicare data, Dr. Vijan said. For example, risk of bleeding was 0.49% for the 66- to 69-year-old cohort and increased to 1.15% among those 85 and older.

Their model also incorporated polypl prevalence data from autopsy and screening colonoscopy studies as well as rates of colorectal cancer from the Surveillance, Epidemiology, and End Results (SEER) database.

If a patient has actually had a colonoscopy at ages 50 and 60, then even a third one at age 70 ends up being harmful. From a population perspective, stopping colonoscopy after age 70 seems appropriate. But this does not apply equally to fecal occult blood testing.