

Virtual colonoscopy an effective colorectal cancer screening exam in Medicare age patients

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Computed tomographic colonography (CTC), also known as virtual colonoscopy, remains effective in screening older patients for colorectal cancer (CRC), produces low referral for colonoscopy rates similar to other screening exams now covered by Medicare, and does not result in unreasonable levels of additional testing resulting from extracolonic findings, according to a study published in the February issue of Radiology.

CT colonography employs virtual reality technology to produce a three-dimensional visualization that permits a thorough and minimally invasive evaluation of the entire colon and rectum. Previous CTC trials have demonstrated excellent performance in average risk individuals. However, concerns remained that such results may not be applicable to older [Medicare beneficiaries](#). Researchers at the University of Wisconsin School of Medicine and Public Health analyzed various CTC performance and program outcome measures for screening individuals aged 65-79.

"These results confirm that CTC is a safe and effective colorectal cancer [screening tool](#) for the older individual. There is no significant difference in the way CTC performs in older patients as opposed to younger patients," said David H. Kim, MD, associate professor of radiology, University of Wisconsin School of Medicine and Public Health, and principal investigator of the study.

In the study, for this older screening group, the advanced neoplastic prevalence was 7.6 percent (44 of 577). There was no statistically significant difference between older patients and the general screening population in terms of the characteristics of advanced neoplasia — including mean size, histologic type and morphology — indicating similar accuracy to that found in other trials involving younger patients.

The overall referral rate to optical [colonoscopy](#) of 15.3 percent (88 of 577) is actually slightly lower than other Medicare covered CRC screening exams such as flexible sigmoidoscopy. Potentially important extracolonic findings were seen in 15.4 percent (89 of 577), with a work-up rate of 7.8 percent (45 of 577). The majority of important extracolonic diagnoses were vascular aneurysms (n = 18). No major complications were encountered.

"There have been questions raised that factors such as the [colonoscopy] referral rate and extracolonic work up rates would be too high in an older population for CTC to be a cost-effective, frontline CRC screening exam. Our results suggest otherwise and that these rates remain in a reasonable range," said Kim.

The American Cancer Society estimates that 20,000 colorectal cancer related deaths each year could be prevented by more widespread screening. Yet, the vast majority of those 50 and older who should be screened for the disease are not being tested — possibly due to the cost, inconvenience, and safety concerns associated with current screening exams. The more invasive nature of optical colonoscopy can present significantly more safety concerns when dealing with older, frailer patients.

"The lack of complications, particularly no perforations, attests to the safety of this procedure even in the older population. Given what we know of the increasing risk for complications for optical colonoscopy in

older patients, perhaps we should consider CT colonography more strongly in this particular group," said Kim.

Colorectal cancer is the third most frequently diagnosed cancer and second leading cause of cancer death in men and women in the United States. Each year nearly 50,000 Americans die from [colorectal cancer](#).

"This study shows that CTC is a viable screening exam in all age groups. We are hopeful, now that the remaining questions regarding older patients have been answered, patients will have wider access to the CTC, more will be screened for colorectal [cancer](#), and more lives can be saved as a result," said Kim.

Provided by American College of Radiology

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