Colonoscopy Quality Varies by Specialty, Volume

BY DAMIAN McNAMARA

ORLANDO — Provider specialty and procedure volume influence polyp detection, biopsy rates, and other measures of colonoscopy quality, according to a study of routine clinical practice.

"Over 14 million colonoscopies are performed in the U.S. These are performed by providers with different levels of training and in diverse practice settings," Dr. Cynthia Ko said at the annual meeting of the American College of Gastroenterology.

Gastroenterologists performed 73% of 328,167 outpatient colonoscopies in a study based on Medicare claims. General surgeons performed 13% of colonoscopies, colorectal surgeons did 6%, internists did 5%, family physicians did 2%, and other specialists the remaining 1%.

Dr. Ko and her colleagues compared detection of colorectal polyps, complications within 30 days after colonoscopy, and biopsy rates by physician specialty and volume. They crossed 20% of relevant Medicare claims data from 2003 with physician information from the American Medical Association Physician Masterfile.

Overall, 38% of the colonoscopies revealed colorectal polyps, and 27% of colonoscopies involved biopsies, she said.

Gastroenterologists had a 45% polyp detection rate, compared with 35%-43% for the other physicians. Expressed in terms of odds ratios using the gastroenterologists as a reference (OR, 1.0), other physicians detected fewer polyps: General surgeons had an OR of 0.75, colorectal surgeons had an OR of 0.92, for internists the OR was 0.92, and for family physicians the OR was 0.85.

Gastroenterologists were more likely to perform polypectomy, with a 27% rate versus a range of 18%-23% among the other types of physicians.

A total of 5% of patients had an emergency department visit, and 6% were hospitalized within 30 days of colonoscopy. Older patients were more likely to experience these events.

The risk of hospitalization varied by physician specialty. Compared with the reference group of gastroenterologists, the patients of general surgeons were more likely to be hospitalized (OR, 1.06). In contrast, the patients of other specialists had a lower likelihood as follows: colorectal surgeons (OR, 0.69), internists (OR, 0.99), and family physicians (OR, 0.92).

A meeting attendee asked if a different type of patient typically presents to colorectal surgeons versus primary care providers. "Comorbidity is slightly higher for those who go to a gastroenterologist versus an internist or family physician," said Dr. Ko of the medicine faculty, division of gastroenterology, University of Washington, Seattle.

Compared with patients of gastroenterologists, those patients who had colonoscopies done by general surgeons had a greater likelihood of additional examinations (OR, 1.04). Patients treated by internists or family physicians also were more likely to have repeat colonoscopies (OR of 1.08 and 1.15, respectively). In contrast, patients treated by colorectal surgeons had a lower likelihood (OR, 0.83).

A meeting attendee asked what proportion of polyps were adenomas. Dr. Ko replied that Medicare coding indicates only whether or not a polyp was detected and provides no histology information, a potential limitation of the study.

It may seem counterintuitive, but polyp detection and polypectomy rates were inversely related to physician volumes. Using the lowest volume quartile as a reference (OR, 1.00), physicians in the second-lowest quartile detected 9% more polyps (OR, 1.09), the third quartile detected 8% more (OR, 1.08), and those in the highest-volume quartile found 2% more (OR, 1.02). Biopsy rates also decreased with increasing volume: first quartile (OR, 1.00), second quartile (0.95), third quartile (0.90), and highest-volume quartile (0.83).

When asked to explain these findings, Dr. Ko said, "Polyp detection rates are linked to withdrawal times. I think physicians in very-high-volume centers may be going faster. I can't prove it with these data; it's just my hypothesis." ■