Comparative Effectiveness of Two Pharmacy-Based Colorectal Cancer Screening Interventions During an Annual Influenza Vaccination Campaign


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**Study Summary**

Investigators from the University of California compared the effectiveness of 2 different pharmacy-based colorectal cancer screening (CRCS) interventions during an annual influenza vaccination campaign. The study compared CRCS completion rates for participants who were provided by pharmacists with the home fecal immunochemical test (FIT, n=86) versus those who were provided with CRCS education alone (n=28). English speaking adults aged 50 to 80 years (n= 133) with a regular source of care who visited a pharmacy during an influenza vaccination campaign in late 2008 were included.

Participants in this time-randomized clinical trial were at average risk for colorectal cancer, and were recruited from 18 stores in San Francisco, California that are part of a large, national chain of community pharmacies. The principal investigator received the results of the FITs and conveyed them to patients and their primary care physicians. The CRCS education-alone group received an educational handout and were advised to contact their primary care physicians. The CRCS education-alone group received an educational handout and were advised to contact their primary care physicians.

The research team interviewed patients by phone 3-to-6 months after the intervention to collect self-reported CRCS activity on a 16-item questionnaire. They found that 50% of adults who received CRCS education and 19.8 % of adults who received FITs discussed colorectal cancer screening with their primary care clinician. More adults (59.3%) from the FIT arm compared with adults (14.8%) from CRCS education arm reported completing the screenings. Also, 52.2% of the FIT arm adults completed the tests dispensed to them by the investigators. Overall, both groups reported that they were interested in receiving future colorectal cancer screening interventions delivered in community pharmacies. Providing FITs to eligible patients during a pharmacy-based influenza vaccination campaign increased the colorectal cancer screening rates more than CRCS education alone.
Viewpoint

Despite efforts to increase colorectal cancer screenings, more than two-thirds do not get them, making colorectal cancer the second major cause of death from cancer in both men and women combined in the United States. Moreover, people in rural US communities were less likely to get an early colorectal cancer diagnosis, which may be because they were unable to access CRCS tests. The USPSTF recommends a) annual fecal occult blood tests (guaiac or immunochemical, FIT) that have high sensitivity for colorectal cancer detection; or b) sigmoidoscopy every 5 years with guaiac test or FIT every 3 years; or c) colonoscopy every 10 years. All 3 alternatives are similar in reducing cancer deaths in average-risk adults from 50 to at least 75 years of age. Both guaiac (sensitivity of 64-80%) and FIT (sensitivity of 61-90%) tests are noninvasive and inexpensive and can be administered in US pharmacies. These fecal occult blood tests can identify sporadic bleeding from precancerous polyps or early cancers that when confirmed by colonoscopy can be removed before they get serious and lead to death. Particularly, the FIT has been reported to be least burdensome compared with guaiac fecal occult blood test or flexible sigmoidoscopy.

The study investigators have shown that fecal occult blood tests at annual flu shot hospital clinics are one way of increasing CRCS rates. Motivated to study a similar intervention in community pharmacies, the authors were among the first to compare 2 pharmacy-based colorectal cancer screening interventions delivered during pharmacy-based influenza vaccination programs. In the absence of medical records, previously validated queries to patients have been accurate in determining their CRCS status. However, the authors of this study acknowledge that depending on patient self-report for finding their CRCS status and for determining whether they were eligible to receive FITs may not be reliable.

Another limitation is that the study findings may not be generalized for 2 reasons. First, the study excluded non-English-speaking patients and those without a regular source of primary care. Second, the study was delivered by a research team and therefore did not simulate routine practice in the pharmacy.

Despite the small sample size and limitations, this pilot study gives valuable insight into how community pharmacy providers could improve CRCS rates in different populations. In most neighborhoods compared with primary care practices and others, pharmacies are available with extended hours of operation. Annual influenza vaccination clinics in pharmacies offer a venue for pharmacists to identify pharmacy patrons for individualized annual bundled preventive public health interventions as associated with vaccinations and CRCS. This role of pharmacist in public health to "promote health improvement, wellness, and disease prevention" is also specifically identified in educational policy statements from the American Association of Colleges of Pharmacy. Though larger real-world studies are needed, this study can generate ideas on how community pharmacies, other providers, and public health professionals can collaborate in delivering interventions beyond vaccinations and CRCS to promote public health.

References

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