Tu1828 — 2020 AGA
OFFERING A BLOOD TEST INCREASES COLORECTAL CANCER SCREENING UPTAKE IN INDIVIDUALS WHO HAVE DECLINED COLONOSCOPY AND FECAL IMMUNOCHEMICAL TESTING

Colorectal Diseases

Colorectal Cancer Screening and Surveillance

Presented on Tuesday, May 5, 2020 12:30 PM

Author(s): Peter S. Liang1,2, Anika Zaman2, Anne M. Kaminsky2, Yongyan Cui1,2, Gabriel Castillo1,2, Craig T. Tenner2,1, Scott E. Sherman2,1, Jason A. Dominitz1,4

Introduction
The only FDA-approved blood test for colorectal cancer screening, which detects methylated SEPT9 DNA, is indicated for individuals who have declined first-line screening tests. However, the effect of offering a blood test on screening uptake in this screen-resistant population is unknown. We present preliminary findings of a randomized controlled trial comparing outreach to re-offer colonoscopy and fecal immunochemical test (FIT) alone (control) vs. offering a blood test as a secondary option (intervention) in veterans who have previously declined colonoscopy and FIT.

Methods
A total of 360 eligible patients aged 50-75 were identified from a VA medical center and randomized 1:1 to the intervention and control groups. Outreach consisted of a mailed letter followed by up to five calls. Participants in the control group were informed that they were overdue for screening and were recommended to undergo colonoscopy or FIT as first-line options. Those in the intervention group received the same information, but in addition were told that if they declined colonoscopy and FIT, a blood test would be available as a secondary option. The primary outcome was the proportion of individuals who received any screening test within six months of initial outreach. The secondary outcome was the proportion who completed a full screening strategy (e.g., colonoscopy with adequate bowel preparation, negative FIT or blood test, or positive FIT or blood test followed by colonoscopy).

Results
This preliminary analysis includes 202 patients who had completed six months of follow up as of October 2019. For the primary outcome, seven of 98 (7%) participants in the control group (1 colonoscopy, 6 FIT) and 29 of 104 (28%) participants in the intervention group (6 colonoscopy, 15 FIT, and 8 blood test) received any screening (p<0.001). Test positivity was 5% (1/21) for FIT and 25% (2/8) for the blood test. Two of three patients with positive FIT or blood tests did not complete colonoscopy. For the secondary outcome, the proportion of participants who completed a screening strategy was 7% in the control group and 24% in the intervention group (p=0.001).

Conclusions
Among screen-resistant individuals who have previously declined colonoscopy and FIT, offering a blood test as a secondary option increased screening. Compared to only re-offering colonoscopy and FIT, screening was 21% (4-fold) higher in those who received the additional option of a blood test. Interestingly, offering the blood test also appeared to increase the uptake of colonoscopy and FIT. Survey data that has been collected may help to explain this finding. These preliminary results provide compelling evidence that individuals who have declined first-line screening options may be receptive to a
blood test. Ensuring diagnostic evaluation after a positive non-invasive test remains a challenge and priority.

**Figure 1. Study Flowchart**

![Flowchart diagram]

**Figure 2. Screening 6 months after outreach**

![Bar chart diagram]