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Fecal occult blood testing in a general medical clinic: comparison between guaiac-based and immunochemical-based tests.

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**PURPOSE:** Guaiac-based fecal occult blood tests are limited by poor patient compliance, and low sensitivity, specificity, and positive predictive value. Newer immunochemical-based tests are designed to improve accuracy and patient compliance. We compared patient compliance and the test characteristics of these two types of tests. **METHODS:** The laboratory outcomes associated with use of different fecal occult blood tests were examined in a Veterans Affairs-based general medicine clinic that was divided into two firms with similar patient and provider characteristics. Tests were ordered for colorectal cancer screening or for symptom evaluation. Patients were given one of the two tests depending on their firm. The completion and positivity rates, time to test completion, completion of diagnostic follow-up, and positive predictive values were compared. **RESULTS:** The percentage of returned test cards was similar between the two groups (47% [1369/2964] for guaiac-based tests vs. 48% [1410/2965] for immunochemical-based tests) as was the positivity rate (9.0% [122/1396] and [128/1410] for both groups). In patients with positive tests who underwent further colon evaluation, the proportion with adenomas was similar between groups (59% [38/64] vs. 58% [40/69]). However, 17% (12/69) with a positive immunochemical-based test had an adenoma >1 cm or a colorectal malignancy, versus 30% (19/64) for guaiac-based tests ( $P = 0.09$ ). **CONCLUSION:** Overall, immunochemical-based and guaiac-based fecal occult blood tests had comparable performance. However, although immunochemical-based testing is reported to be easier for patients than guaiac-based testing, we found that patients were no more likely to return cards for analysis. The similar positive predictive value and additional cost of immunochemical-based tests call into question their utility in general practice.

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