**Title:** Enabling Adherence to Colorectal Cancer Screening and Surveillance Guidelines in a Value Based Healthcare System – A Mobile Solution.

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**Objectives:** To determine the need and utility of smartphones in patient care and the need of a mobile application (app) in assisting clinicians apply colorectal cancer (CRC) screening and surveillance guidelines.

**Abstract:** Guidelines for CRC screening and surveillance are complex, updated regularly, and difficult for clinicians to recall. We assessed the current use of mobile technology in a national cohort of physicians in training and practice, and the potential use of a mobile application to generate guideline supported CRC screening and surveillance recommendations.

An IRB approved 9–question web based survey was created. It assessed the frequency and reasons for use of smartphones in the practice of medicine as well as interest in using a CRC screening and surveillance app if one was created.

Directors of ACGME approved internal medicine, family practice, ob/gyn, urology programs were sent an email request to forward the survey to faculty and trainees in their departments. Additionally, a national cohort of gastroenterologists, including fellows in training were sent the survey.

1387 physicians responded of which 55% were trainees. 99% owned a smartphone and 80% used an iPhone in their practice. 45% of practicing clinicians and 77% of trainees utilized their smartphone frequently to aid in patient care. Medical calculators, drug referencing and treatment algorithms were the most popular uses of smartphones. 85% of clinicians reported interest in a mobile app to aid in counseling their patients on appropriate CRC screening and surveillance recommendations. Additionally, over 25% of all physicians were willing to pay for the use of this app

CRC guidelines are challenging to recall. There is a high rate of smartphones use in the clinical setting, especially among trainee physicians entering the work force. Smart calculators and algorithms delivered through technology platforms like smartphones or electronic medical record systems can potentially help improve compliance and prevent the over and under utilization of resources – a key requirement to sustain our shift to value based healthcare.