Best practices for abnormal FIT follow up

Samir Gupta, MD, MSCS, AGAF

Staff Physician, VA San Diego Healthcare System

Professor of Clinical Medicine, UC San Diego and the Moores Cancer Center

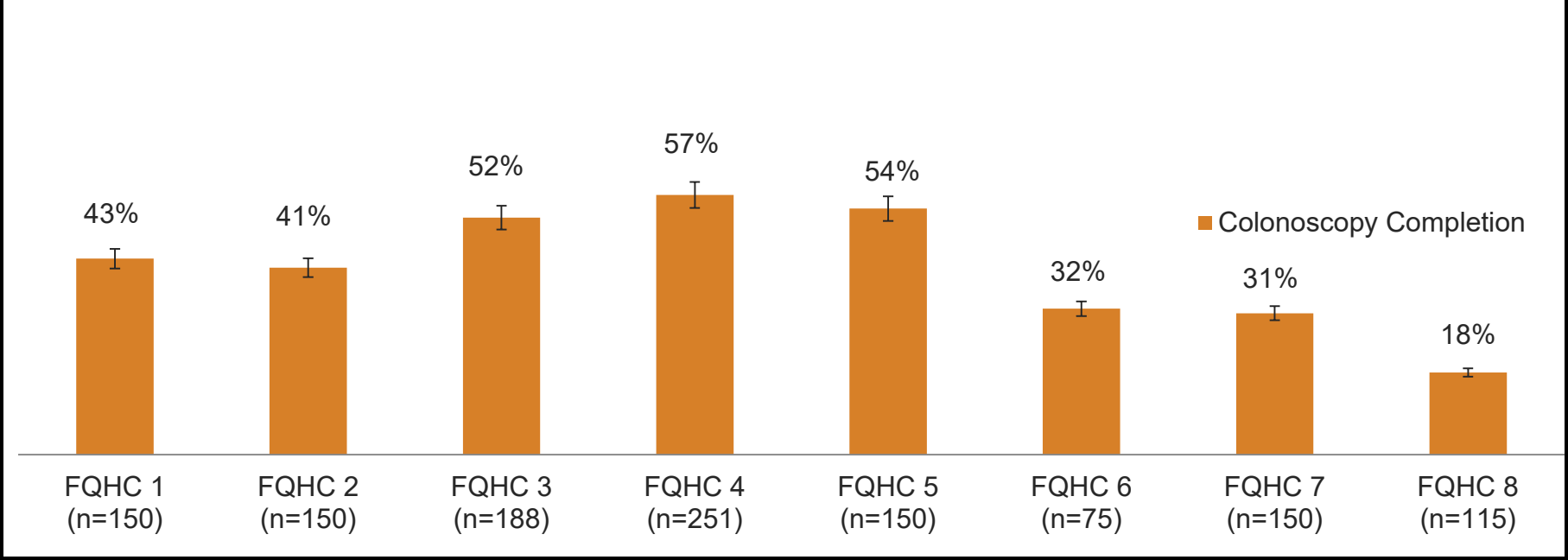
UC San Diego
HEALTH SCIENCES

Outline

- Importance
- Variation in abnormal FIT follow up
- Challenges to abnormal FIT follow up
  - Patient/provider
  - Health system
- Potential solutions addressable through training/scripting

Currently reported rates are highly variable and suboptimal

- Colonoscopy completion after abnormal gFOBT or FIT ranges from 22% to 69%
- CDPH/CDC funded study showed completion varied 18-57% across a sample of 8 Southern California Federally Qualified Health Centers



Jimbo M Ann Fam Med 2009; Humphrey LL JGIM 2011; Rao SK JGIM 2009; Chubak J CEBP 2016; Gupta S Nodora J JNCI 2017; Bharti…Gupta Cancer 2019

Non-completion of colonoscopy after abnormal FIT leads to major missed opportunities for cancer detection and prevention

Early detection

- Between 1 in 10 and 1 in 30 patients with abnormal FIT have colorectal cancer (CRC)

Prevention

- Up to 1 in 3 with abnormal FIT have a large polyp which can be removed before CRC develops

CRC death

- Failure to complete colonoscopy after abnormal FIT is associated with a 2.4-fold increased risk of **colorectal cancer death** (RR=2.43; 95%CI: 1.95-3.43)

Gupta and Nodora JNCI 2017; Imperiale T NEJM 2014; Lee YC J Natl Cancer Inst (2017) 109(5)

Patient and Provider Reasons

Key results from two studies

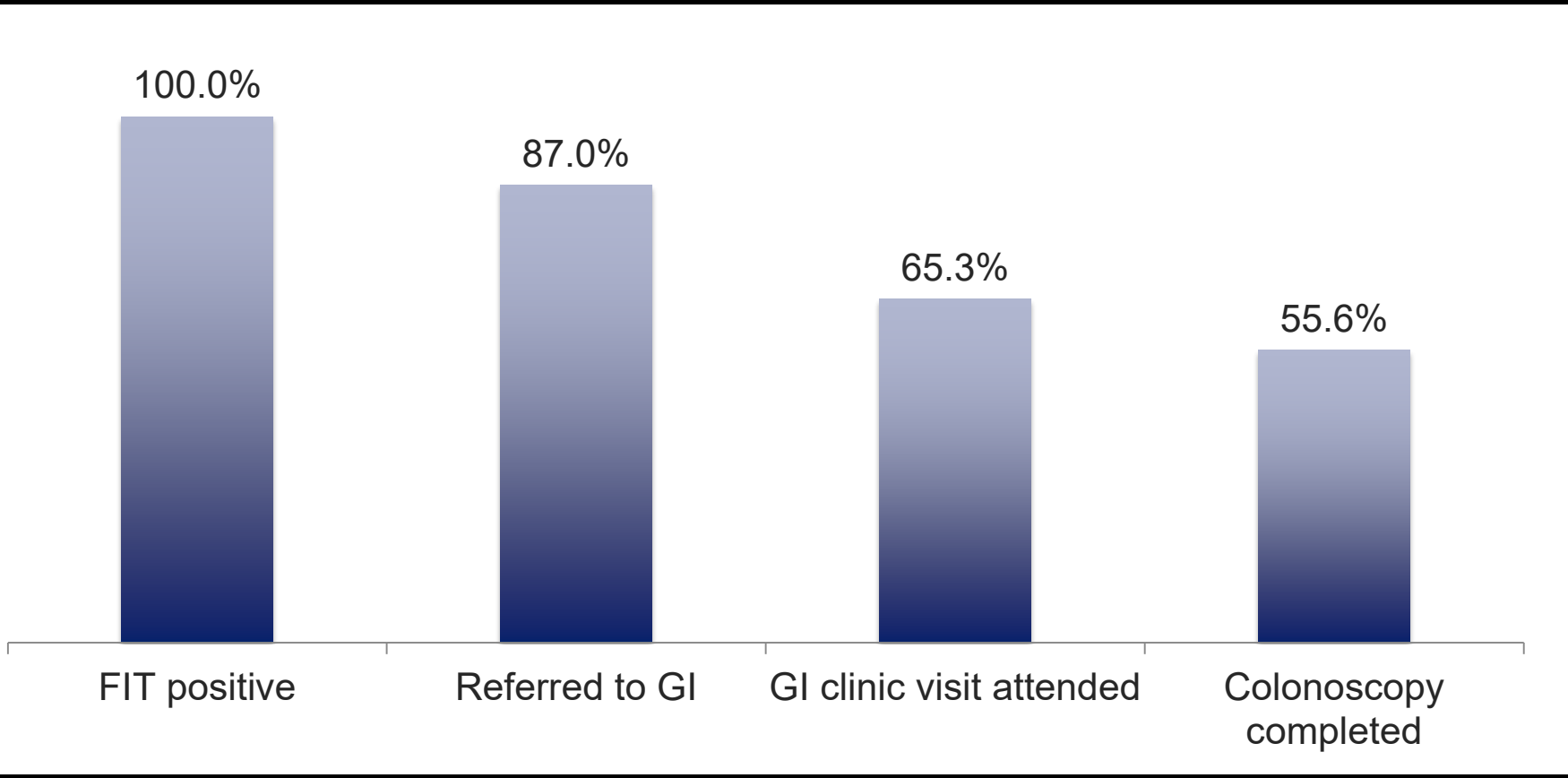
- Belief test was false positive (most common)
  - Patients often request, and physicians often grant, repeat testing
- Competing health concerns/co-morbid conditions
- Insurance concerns
- Concerns about colonoscopy (e.g. fear/uneasiness, prep)
- Transportation
- Social support

Postulated contributing factors

- Wait times for colonoscopy
- Lack of dedicated spots/immediate scheduling
- Lack of expectation setting for colonoscopy if abnormal FIT
- Challenge of communicating urgency/importance of abnormal test

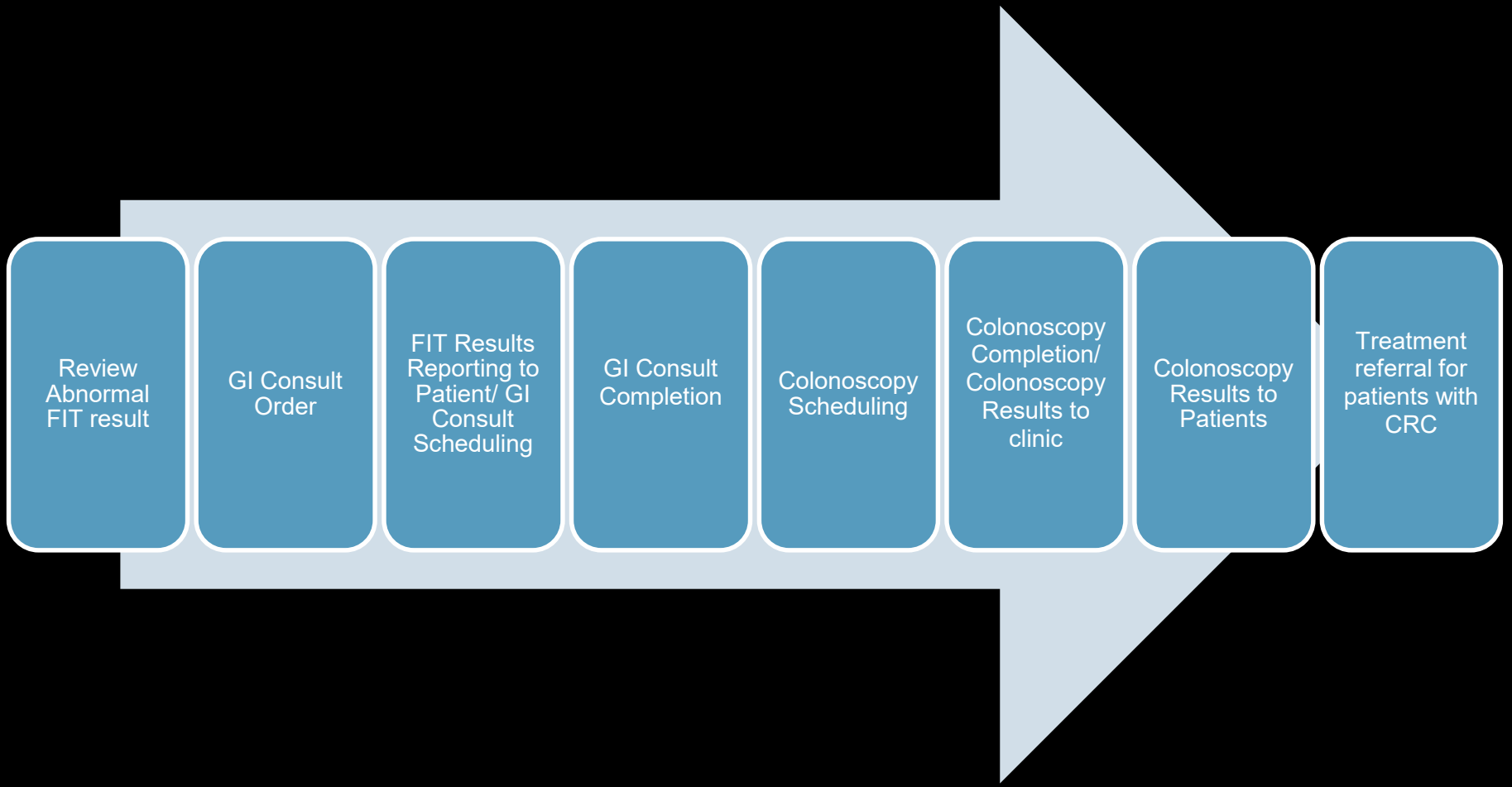
Lovett D et al. Reasons For Lack of Follow-up Colonoscopy Among Persons With A Positive Fecal Occult Blood Test Result: A Qualitative Study. Am J Gastro 2018; Jetelina K Patient-Reported Barriers to Completing a Diagnostic Colonoscopy Following Abnormal Fecal Immunochemical Test Among Uninsured Patients. JGIM 2019.

Reasons: Health system drop offs



Adapted from Issaka R Am J Gastro 2017
(n=2,238)

Drop offs are not surprising because the process is complex



Potential solutions for patients and providers

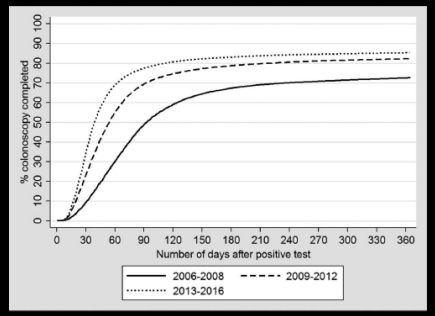
Challenge	Potential Solution
Belief test was false positive	Script response: • Hemorrhoids and cancers can co-exist • False positive rate is low (under 10%) • Repeat FIT inappropriate because cancers intermittently bleed Train providers: • Repeat FIT is inappropriate because cancers intermittently bleed
Competing health concerns/co-morbid conditions	• Work with primary provider to determine priority • Educate providers on appropriate orders
Urgency/importance of result	Script response: • Up to 1 in 3 have a large polyp which can be removed to prevent cancer • Up to 1 in 10 have a cancer which can be detected early and usually cured • Call it “abnormal” not “positive” FIT • Result as a “critical value”
Insurance concerns	• Standing plan for uninsured • Train staff that colonoscopy is fully covered by MediCal without cost sharing
Concerns about colonoscopy/Social Support	• Patient navigation/education to address bowel prep, fear/uneasiness, social support
Transportation	• Ride programs, unsedated colonoscopy
Expectations for results	• Make clear that FIT is a 2-step test: colonoscopy if abnormal, repeat in 1 year if normal

Potential solutions: Track and address key steps

Suggested components and goals of a FIT registry/tracking sheet	
Step	**Interventions if step not completed**
Result reviewed by provider, colonoscopy ordered	Provider feedback to review result and order colonoscopy
Result provided to patient with education	Care coordinator calls patient to provide result
Insurance approval	Care coordinator follows up
Pre-colonoscopy visit	Coordinator ensures visit scheduled and completed
Pre-colonoscopy reminders on appointment, transportation, prep	Coordinator follows up on every patient
Colonoscopy scheduled	Coordinator identifies barriers/solutions
Colonoscopy completed	Coordinator identifies barriers/solutions
Colonoscopy and pathology report returned to primary provider	Coordinator reaches out to colonoscopy provider
Colonoscopy results provided to patient	Coordinator ensures that colonoscopy and path result were provided to patient by GI or primary provider

Learning from success: Kaiser Northern CA

- Mixed methods study of system level strategies used to improve abnormal FIT folllow up 2006-2016
- Interventions
  - Goal of colonoscopy within 30 days
  - Tracking of abnormal FIT
  - Early telephone contact for direct scheduling
  - Responsibility assigned to GI department for f/u (not primary care)
  - Colonoscopy capacity increased
- Results
  - Colonoscopy completion improved from 67% to 83%



Selby K et al. Strategies to Improve Follow-up After Positive Fecal Immunochemical Tests in a Community-Based Setting: A Mixed-Methods Study. Clin Transl Gastroenterol. 2019 Feb;10(2):e00010.

Table 1. Strategies implemented between 2006 and 2016 to increase timely colonoscopy follow-up of positive fecal immunochemical tests within KPNC

Period	Strategies
Existing facilitators within KPNC (39)	Integrated electronic health record across all sites Focus on preventive health Support staff for panel management
2006–2008	Hired additional gastroenterologists (increased from 60 to >100) and nurses; built additional endoscopy suites Increased number of colonoscopies from 25,000 to nearly 100,000 per year Adopted a policy that a certified letter be sent if FIT-positive participants could not be reached to schedule a colonoscopy
2009–2012	Health plan designated follow-up colonoscopy a screening examination to avoid copayments Established a goal of ≥80% of FIT-positive participants complete follow-up colonoscopy within 30 d of a positive test; those unreachable by telephone or requiring medical evaluation were not included in the denominator Adopted a policy whereby medical centers had a portion of their annual budget retained and only released if they met colonoscopy access targets Created patient and condition tracking system, a central registry to flag FIT-positive patients without a colonoscopy at 30, 60, and 90 d after a positive FIT. Lists of patients with inadequate action were provided to each service area
2013–2016	Gastroenterology departments directly provided FIT-positive participant lists and assumed direct responsibility for follow-up, even if no referral was placed Identified a designated person responsible for FIT-positive participant tracking at each gastroenterology facility Implemented standardized outreach by navigators: minimum 3 calls, standard letter quoting cancer risk; if no contact, participant flagged as unable to contact and primary care provider notified

FIT, fecal immunochemical test; KPNC, Kaiser Permanente Northern California.

Summary

- Colonoscopy completion after abnormal FIT is a major opportunity for early detection and prevention of CRC
- Follow up rates are suboptimal
- Barriers at patient, provider, and health system
- Potentially addressable through scripting, patient tracking, and standardized follow up
- Requires substantial resources

Acknowledgements

Community Partners

- Christian Ramers
- Felipe Garcia-Bigley
- Shawne O'Connell
- Melissa Barajas
- Kevin J. Ronan
- Meghan Powers
- Evelyn Ceja
- Sheree Gordon
- Jose Diaz
- Monica Hernandez

University of California San Diego

- Jesse Nodora
- Balambal Bharti
- Giovanna Perez
- Karina Moyano

University of California, Los Angeles

- Folasade P. May

California Department of Public Health

- Shauntay Davis

Funding

National Cancer Institute awards U54CA132379 [Martinez, PI], U54CA132384 [Arredondo, PI], UG3CA233314 [Martinez, Gupta, Castañeda MPI]

California Department of Public Health/Centers for Disease Control Agreement #16-10756, “Assessing the quality of colorectal cancer screening process at Federally Qualified Community Health Centers in San Diego and Imperial Counties” [Gupta, PI]

American Cancer Society MRSG-11-102-01-CPPB [Nodora, PI]

Cancer Prevention and Research Institute of Texas: PP100039 [Gupta, PI]; PP120229 [Argenbright, PI]

s1gupta@ucsd.edu

@samirguptaGI

Back up/resources slides to follow

Proposed measurements prior to initiating QI cycle, based on patients with abnormal FIT over 6 month time period

Metric	Denominator	Numerator
Result reviewed by MD	# abnormal FIT	# result reviewed
Result provided to patient	# abnormal FIT	# patients informed
Colonoscopy ordered	# abnormal FIT	# colonoscopy ordered
Colonoscopy scheduled	# abnormal FIT	# colonoscopy scheduled within 12 months of abnormal
		# colonoscopy scheduled within within 2 months of abnormal
Colonoscopy completed	# abnormal FIT	# colonoscopy completed within 12 months of abnormal
		# colonoscopy completed within within 2 months of abnormal
Colonoscopy report sent to primary physician	# abnormal FIT with colonoscopy	# with report sent to physician

Example proposed checklist for patients with abnormal FIT

	Time Goal after Abnormal FIT	Completed?
Result sent provider as a “critical value” from lab	1 day	
Result provided to patient with education on importance, including: • Up to 1 in 10 chance of CRC • Up to 1 in 3 chance of polyp requiring removal for CRC prevention	2 days	
Colonoscopy ordered	2 days	
Insurance verification completed	7 days	
Pre-colonoscopy clinic visit scheduled (if necessary)	14 days	
Colonoscopy scheduled	14 days	
Colonoscopy completed	30 days	
Colonoscopy report sent to primary physician	1 day after colo	

Measure Completion Rates

- Denominator = # with abnormal FIT within a defined time period
- Numerator = # with documented evidence of colonoscopy completion
- Quality Metric: # colonoscopy completed/# abnormal FIT

Measure Completion Rates: Example

- Electronic health record-based:
  - Query lab results for patients with abnormal FIT January 2015 to June 2015 (denominator)
  - Query # with documented colonoscopy from January 2015 through December 2015 (numerator)
  - Compute proportion with colonoscopy completed
- Chart-review based:
  - Query # lab results for patients with abnormal FIT January 2015 to June 2015
  - Randomly sample 150 patients with abnormal FIT (denominator)
  - Review charts to document # with colonoscopy completed January 2015 through December 2015 (numerator)
  - Compute proportion with colonoscopy completed

Track Key Metrics

- Result to provider as a “critical value”
- Result provided to patient
- Colonoscopy ordered
- Insurance verification completed
- Pre-colonoscopy clinic visit scheduled
- Colonoscopy scheduled
- Colonoscopy completed
- Report received

Example proposed checklist for patients with abnormal FIT

	Time Goal after Abnormal FIT	Completed?
Result sent provider as a “critical value” from lab	1 day	
Result provided to patient with education on importance, including: • Up to 1 in 10 chance of CRC • Up to 1 in 3 chance of polyp requiring removal for CRC prevention	2 days	
Colonoscopy ordered	2 days	
Insurance verification completed	7 days	
Pre-colonoscopy clinic visit scheduled (if necessary)	14 days	
Colonoscopy scheduled	14 days	
Colonoscopy completed	30 days	
Colonoscopy report sent to primary physician	1 day after colo	