Colorectal Cancer Screening and Risk Assessment Workflow

Documentation Guide for Health Center NextGen Users
# Colorectal Cancer Screening and Risk Assessment Workflow and Documentation Guide for Health Center NextGen Users

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Introduction and Purpose:
This Guide provides focused documentation to assist users of NextGen software to improve the process of assessing, documenting, tracking, and following up on colorectal cancer screening. The Guide gives particular attention to assessment of personal and family risk and the tracking and follow-up of screening results that are not addressed in the standard NextGen guidance documents. This work aims to improve health center compliance with HRSA Uniform Data Systems (UDS) colorectal cancer screening (CRCS) through the development and implementation of workflows that produce accurate and reliable structured data and enable proactive outreach and timely follow-up with patients due for CRCS or follow-up testing. This optimization enables health centers to harness broader evidence-based strategies to improve CRCS compliance, and ultimately, health outcomes.

Background:
Extensive documentation exists regarding evidenced-based practices and expert-endorsed recommendations for increasing colorectal cancer screening, including the guide on How to Increase Colorectal Cancer Screening Rates in Practice: A Primary Care Clinician’s Evidence-Based Toolbox¹ and Steps for Increasing Colorectal Cancer Screening Rates: A Manual for Community Health Centers². Yet, applying these recommendations within the real-world electronic health records (EHRs) in use by providers remains a challenge. Previous work by HealthEfficient (formerly Health Center Controlled Network of New York) and the National Association of Community Health Centers, Inc. (NACHC), under funding from the American Cancer Society (ACS), created one such guide for health center users of eClinicalWorks. This Guide now extends this work to NextGen, an electronic health record frequently used by health centers today. It builds upon NextGen’s Colorectal Cancer Screening Measure UDS Workflow³ by providing additional guidance for documenting risk in the NextGen product, including application of the American Cancer Society’s updated screening algorithm that incorporates the latest evidence-based guidelines for colorectal cancer screening, follow-up, and documentation of screening results.

This Guide was initially developed by Harbor Health Services in collaboration with the Massachusetts League of Community Health Centers and NACHC, with support from the ACS. Additional review and comment was provided by El Rio Community Health Center. This guide was developed for NextGen Version; 5.8.1 KBM 8.3.4.

The guidance outlined here recognizes that documentation of colorectal cancer screening (CRCS) typically takes place within the context of a primary care visit. This requires that CRCS documentation guidance consider screening as part of the overall patient visit process. Critical to this exercise is documenting CRCS using structured fields within the NextGen product. Structured data refers to any data that reside in a fixed field within the patient record used for relational databases and spreadsheets. Structured data are dependent on how the data is recorded, stored, processed and accessed. This includes defining what fields of data will be stored and how that data will be stored (e.g., whether numeric, alphabetic, name, date, or address), as well as how the data will be input into the EHR (e.g., number of characters, certain fields, and/or EHR templates).

NextGen structured data fields are referenced throughout the Guide using the named area of the EHR. Screenshots have been omitted pending NextGen approval.

Sections of this Guide
The design of this Guide is structured to provide information on the use of NextGen as a tool to increase colorectal cancer screening as well as offer additional examples of strategies and tools in use by health centers to maximize screening efforts. The Guide is divided into three sections:

Section I: Current NextGen Documents Supporting CRC Screening
NextGen® Ambulatory Products: Colorectal Cancer Screening Measure UDS Workflow V5.8 UD2

Section II: Additional Guidance on Using NextGen for CRC Screening
Additional NextGen-Supported Patient Visit Workflows that Incorporate CRC Screening

Section III: Alternate Health Center Examples of CRC Screening Strategies
Alternate Patient Visit Workflows that Incorporate Colorectal Cancer Screening

Section I: NextGen® Ambulatory Products: Colorectal Cancer Screening Measure UDS Workflow, Version 5.8 UD2

NextGen has several existing ambulatory products to support colorectal cancer screenings. Refer to NextGen® Ambulatory Products: Colorectal Cancer Screening Measure UDS Workflow, Version 5.8 UD2 to access the following workflows.

• Ordering a FOBT or FIT
• Documenting FOBT/FIT Results
• Ordering a Colonoscopy or Sigmoidoscopy
• Documenting a Colonoscopy Results
• Documenting a Historical Colonoscopy
• Documenting a Colectomy or Colorectal Cancer
Section II: Additional Guidance on Using NextGen for CRC Screening

Colorectal Cancer Screening

Colon Cancer is one of the few cancers that can be prevented with proper screening. The United States Preventive Services Task Force (USPSTF) recommends screening for colorectal cancer beginning at age 50 years and continuing until age 75 years. A joint guideline by the American Cancer Society, US Multi-Society Task Force on Colorectal Cancer, and American College of Radiology recommends that individuals with a personal or family history of colorectal cancer or polyps or personal history of chronic inflammatory bowel disease undergo more frequent screening. The American Cancer Society (ACS) recently released a CRCS algorithm that reflects this joint guidance (Figure 1). ACS also released a CRCS screening algorithm that reflects its recently updated recommendation to begin colorectal cancer screening at age 45 (Figure 2).

As part of federal reporting requirements, health centers are required to report on the percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer. These Uniform Data System (UDS) requirements define appropriate screening as any one of the following:

- Fecal occult blood test, which includes guaic fecal occult blood test (gFOBT) and the immunochemical-based fecal occult blood test (iFOBT), during the measurement period.
- Fecal immunochemical test (FIT)-deoxyribonucleic acid (DNA) during the measurement period or the 2 years prior to the measurement period.
- Flexible sigmoidoscopy during the measurement period or the 4 years prior to the measurement period.
- Computerized tomography (CT) colonography during the measurement period or the 4 years prior to the measurement period.
- Colonoscopy during the measurement period or the 9 years prior to the measurement period.
- Excluded are patients with a diagnosis of colorectal cancer or a history of total colectomy and patients in hospice care during the measurement period.

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Assessing Need for Colorectal Cancer Screening

Effective colorectal cancer screening begins with risk assessment.

**Figure 1**

**Sample Screening Algorithm**

**Stool/Tests**
- Yearly fecal immunochemical test (FIT)*, or
- Yearly high-sensitivity guaiac test (gFOBT)*, or
- Multi-target stool DNA (FIT-DNA), interval uncertain

*Stool samples obtained by digital rectal exam (DRE) have low sensitivity for cancer (missing 19 of 21 cancers in one study) and should never be used for CRC screening.

All patients who undergo a test other than colonoscopy as a first line screening exam and test positive, must follow up with colonoscopy.

**Direct Visualization**
- Flexible sigmoidoscopy every 5 years, or
- Colonoscopy every 10 years, or
- CT colonography (virtual colonoscopy) every 5 years

**OPTIONS**
- Colonoscopy (high risk)
- Colonoscopy (not high risk)
- Fecal Occult Blood Test (FOBT), immunosoft 1-3 consecutive
- Colorectal cancer screening stool-based DNA and fecal occult hemoglobin (eg, KRAS, NDRG4 and BMP3)

**DEFINITIONS**
- IBD: Inflammatory bowel disease
- CRC: Colorectal cancer
- FDR: First-degree relative
- SDR: Second-degree relative
- CTC: Computed tomographic colonography
- FAP: Familial adenomatous polyposis
- HNPCC: Hereditary non-polyposis colorectal cancer
- FIT: Fecal immunochemical test

*Screening colonoscopy is performed on asymptomatic patients due for colorectal cancer screening because of age or familial risk indicators such as a family history of CRC or adenomatous polyps.

*Surveillance colonoscopy is performed when a patient has had a personal malignancy or premalignancy that needs follow up and requires colonoscopy at more frequent intervals. Example are Personal history of CRC (285.036) or Personal History of Colonic Adenomatous Polyps (286.000).

*Diagnostic colonoscopy is performed when a patient has indicator condition requiring diagnostic workup that includes consideration of colon cancer as a potential diagnosis (i.e., persons with a history of rectal bleeding, anemia, or unexplained weight loss).
**Figure 2**

**Sample Colorectal Cancer Screening Algorithm**

*Recommendation to Start Screening at Age 45 per 2018 American Cancer Society Guideline*

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**Assess Risk: Personal & Family**

- **Increased or high risk based on personal history.**
  - If personal Hx of CRC (Z85.038), colonic polyps (Z86.010), Ulcerative Colitis (K51.9), or 8 year or more diagnosed personal Hx of IBD (Z87.19 or K52.9), document as assessment in today’s encounter and use the diagnostic code to order a screening colonoscopy (CPT 45378).

- **Increased or high risk based on family history.**
  - If hereditary CRC syndrome such as FAP (Z83.71) or other polyposis syndromes, or Lynch Syndrome (Z80.0, Z15.09, or Z84.81), document assessment in today’s encounter and use the diagnosis to order a screening colonoscopy (CPT 45378).

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**Screening Options**

- **Stool-Based Tests**
  - Yearly fecal immunochemical test (FIT)*, or
  - Multi-target stool DNA (FIT-DNA) every three years, or
  - Yearly high-sensitivity guaiac test (HS-gFOBT)*

- **Direct Visualization Tests**
  - Colonoscopy every 10 years, or
  - CT colonography (virtual colonoscopy) every 5 years, or
  - Flexible sigmoidoscopy every 5 years

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**Definitions**

- IBD: Inflammatory bowel disease
- CRC: Colorectal cancer
- FDR: First-degree relative
- SDR: Second-degree relative
- CTC: Computed tomographic colonography
- FAP: Familial adenomatous polyposis
- FIT: Fecal immunochemical test
- Hx: History

**For Medicare patients, use G codes:**

- **G0105** – Colonoscopy (high risk)
- **G0121** – Colonoscopy (not high risk)
- **G0328** – Fecal Occult Blood Test (FOBT), immunoassay, 1–3 simultaneous
- **G0464** – Colorectal cancer screening; stool-based DNA and fecal occult hemoglobin (e.g., KRAS, NDRG4 and BMP3)

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* Stool samples obtained by digital rectal exam (DRE) have low sensitivity for cancer (missing 19 of 21 cancers in one study) and should never be used for CRC screening.

All patients who undergo a test other than colonoscopy as a first-line screening exam and receive a positive test result must follow up with a colonoscopy to complete the screening process.

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*Screening colonoscopy is performed on asymptomatic patients due to colorectal cancer screening because of age or familial risk indicators such as a family history of CRC or adenomatous polyps.

*Surveillance colonoscopy is performed when a patient has an indicator condition or has had a personal malignancy or premalignancy that needs follow up and requires colonoscopy at more frequent intervals. Examples are Personal history of CRC (Z85.038) or Personal History of Colonic Adenomatous Polyps (Z86.010).

*Diagnostic colonoscopy is performed when a patient has indicator condition requiring diagnostic workup that includes consideration of colon cancer as a potential diagnosis (i.e. persons with a history of rectal bleeding, anemia, or unexplained weight loss).

*An “advanced adenoma” is a lesion ≥1 cm in size or having high-grade dysplasia or villous elements.

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Assessing and Defining Individual Patient Risk

Perform a 4-point check:
1. Open the Intake template.
   • If the patient has an appointment today, select “Office Visit” or Preventative Medicine” as the visit type.
   • If the patient does not have an appointment, create a new encounter and select “Chart Update” as the visit type. Open the Intake template.
2. Open the Care Guidelines link, look in the Clinical Guidelines Section. In the active Guidelines Section, check that Health Maintenance is enabled.

**IF AVERAGE RISK:**
Colorectal Cancer Screening is a set parameter within the Health Maintenance set of guidelines. Enabling Health Maintenance configures clinical decision support reminders to screen for colorectal cancer beginning at age 50 and ending at age 75.

**IF HIGH RISK:**
Colorectal Cancer Screening age of initiation and frequency of screening can be altered within the Health Maintenance set of guidelines. Indicators of high risk are:
1. Personal history of:
   • Colorectal Cancer (Z85.038)
   • Colonic Polyps (Z86.010)
   • Inflammatory Bowel Disease (Z87.19 or K52.9)
   • Ulcerative Colitis (K51.9)
2. Family history of:
   • Genetic syndromes
     o Familial Adenomatous Polyposis (Z83.71)
     o Hereditary nonpolyposis colorectal cancer (HNPCC) or Lynch syndrome (Z80.0)
   • Colorectal cancer or adenomas (Z80.0):
     o In one first-degree relative < 60 years old OR two or more first-degree relatives of any age
     o In one first-degree relative > 60 years old OR two or more second-degree relatives of any age.

Personal history of the above conditions should be documented in the clinical problem list. Family history of the above conditions should be documented in the clinical problem list and in family history.

**Option #1:**
On the Care Guidelines template, select the “Colonoscopy” measure and click “Edit”. Use the edit function for this measure to adjust the parameters for high-risk screening.

**Option #2:**
Using the Risk Indicators template, check the box for “Colorectal Cancer, High Risk”. After this is done, providers can then update the guideline to reflect the appropriate interval and start/stop age.
Documenting Family History

Family history of a colorectal cancer risk-defining condition should be indicated in the clinical problem list.

If there is a family history of a colorectal cancer risk-defining condition, add the condition to the “Family Health History” section located on the Histories template just below the Problem List. If available, indicate age of diagnosis and whether this was the identified cause of death, if deceased.

History of colorectal cancer or the absence of a colon is a reason to exclude Colorectal Cancer Screening from care guidelines. For total colectomy, on the “Risk Indicators” template check the box next to “Colectomy (total)”. Click in the appropriate diagnosis field and select the History of Colectomy Z90.49 diagnosis previously added to the clinical problem list. If this diagnosis is not present, enter the diagnosis History of Colectomy Z90.49 into the clinical problem list. This removes the colonoscopy measure from the selected patient’s clinical guidelines.

Tracking, Follow-up & Closing the Loop: FOBT/FIT

FOBT/FIT

1. Reports on incomplete FOBT/FIT tests or other tracking and follow-up reports can be saved in NextGen. Consult the NextGen Knowledge Base for guidance on how to configure a memorized report and report group.
2. To access memorized reports, go to Go To File | Reports | Report List and select desired report.
3. When the report options display, change the date if necessary, select your provider, and click “OK” to run the report.

Tracking, Follow-up & Closing the Loop: Colonoscopies

Notes are entered in order management reflecting communication attempts with both patient and consultant. The order will remain uncompleted until the report is received or the order is cancelled.

Follow-up & Closing the Loop for FOBT/FIT & Colonoscopies: Automated Messaging

1. Automated messaging
   - Patient messaging occurs by portal message, telephone call, or postal mail.
   - Documentation occurs on Provider Test Action Template
   - NextGen also has population health software that can be used to develop a population health campaign.
Refusal

Colorectal cancer screening should be excluded only if a patient has had a total colectomy. If a patient refuses colorectal cancer screening open ‘Clinical Guidelines’, select either ‘Colonoscopy’ or ‘FOBT’, as appropriate, and in the Status field change the “Due” status to “Declined” and click “Update”. A health center could choose to use the label ‘FOBT’ for ‘FIT’ if that is the test the health center uses. As the screening interval will remain at 1 year, annual reminders to encourage testing will continue.

If needed, adjust the interval as shown below.

Patient Education

To obtain patient education documents, access the Healthwise® utility to search, save, and print/send materials. Use Colon Cancer Screening to locate the appropriate documents.

To locate FIT instructions, type ‘fecal’ in the search function.
To locate colonoscopy instructions, type ‘colon cancer screening’ in the search function.

Click “Save to Encounter” to provide documentation of this education. These documents may be printed and given to the patient or sent via the Patient Portal.

Patient Outreach

Telephone Template
Documentation of patient interactions related to diagnostic testing should be entered in either the Provider Test Action template or the Telephone Call template.
Section III: Alternate Health Center Examples of CRC Screening Strategies

Case Study: Harbor Health Services
Harbor Health Services, Inc. is a nonprofit, healthcare organization in Massachusetts that operates health centers across Boston, the South Shore and Cape Cod, serving over 40,000 patients. Harbor Health uses a modified workflow for colorectal cancer screening at its health centers. This offers one example of alternate patient visit workflows that utilize customized NextGen templates or additional products to document colorectal cancer screenings.

Order FOBT or FIT Tests

Harbor Health Services:

Stool Test Workflow – NextGen

Provider places order for test with Z12.11 code and sends patient to the lab to obtain kit

Patient mails or returns specimen to lab.

Lab processes specimen and sends results to NextGen EHR via interface

Provider reviews and signs off result in PAQ and plans subsequent care based on results.

- Billing is handled entirely by lab
- Completion of FIT test order when resulted meets care guideline and resets screening interval
- Provider must enter Z12.11 code into today’s assessments when ordering test
- Pairing of ICD-10 code with test meets ACO measure (charge submission)
- NextGen reporting tool able to generate lists of tests not completed and/or completed with results

Note:
- A bidirectional lab interface allows for order submission which must be tied to an appropriate ICD-10 code
- Billing occurs on the laboratory services provider side
- Future orders reside in the laboratory information system (not NextGen)
- Tests when resulted flow into the NextGen laboratory flowsheet. Providers are alerted when results are ready and can plan for patient notice and subsequent care, if required.

Harbor Health Services NextGen Colonoscopy Order Process
1. To order an appropriate stool test, ensure that the diagnosis “Screening for Colon Cancer” Z12.11 has been entered into today’s assessments.
2. Open the Labs Template (note: Harbor Health developed a customized template that differs from the standard NextGen template).
3. Select the “Screening for Colon Cancer” Z12.22 diagnosis, open the “Stool” test category, and select the appropriate test. Verify and submit the test order.
Order A Colonoscopy

Health Services:

COLONOSCOPY REFERRAL

Harbor Health Services NextGen Colonoscopy Order Process

1. To order a screening colonoscopy, ensure that the diagnosis “Screening for Colon Cancer” Z12.11 has been entered into today’s assessments.

2. Open the Diagnostics Template. (Note: Harbor Health developed a customized template that differs from the standard NextGen template). Health centers using the standard NextGen process can order a colonoscopy through the “Referrals Template, My Plan” as a diagnostic test, as well as the “Diagnostic Template”.

3. Select the “Screening for Colon Cancer” Z12.22 diagnosis, open the “GI studies” category, and select Colonoscopy, screening test (CPT 45378). Enter location for testing and select the “Place Order” button. For Harbor Health, this generates a task that is sent to the referrals team.

Documenting Screening Results

FOBT/FIT

When resulted, FOBT/FIT test results are returned to the individual patient chart and displayed in the lab table. Providers receive notice in their Provider Approval Queue (PAQ) where they may review and sign off on results. Providers will use the Provider Test Action template to document or delegate contact with the patient to notify of test results. Options to be documented on Provider Test Action include contact by patient portal messaging, telephone, or letter sent by postal mail.
**Colonoscopy**
When resulted, colonoscopy results are returned to the individual patient chart and displayed in the order management template. Providers receive notice in their Provider Approval Queue (PAQ) where they may review and sign off on results. Providers will use the Provider Test Action template to document or delegate contact with the patient to notify of test results. Options to be documented on Provider Test Action include contact by patient portal messaging, telephone, or letter sent by postal mail. Patients may also receive results directly from the physician who performed the colonoscopy.

**Harbor Health Services:**

**RECORDING COLONOSCOPY RESULTS**

**Documenting a Historical Colonoscopy:**
It is sometimes necessary to enter historical study results. For this case test, on the order management template there is a custom link “Add Item Ordered Elsewhere”. When an item such as ‘colonoscopy’ is added and completed, the resulting colonoscopy entry will complete the Care Guideline measure for colonoscopy when this item is added to the record. Other NextGen users may enter a historical colonoscopy through the Care Guidelines (available with CG 2.0) and Diagnostic Histories (which will also update/complete the Care Guideline).

On the order management template, the diagnostic order for colonoscopy is managed through five steps—ordered, scheduled, obtained, result received, and completed. Completion of the order is recognized by Care Guidelines as completion of the care measure.
Patient Outreach

**Telephone Template**
Documentation of patient interactions around testing should be recorded in either the Provider Test Action template or the Telephone Call template.

DISCLAIMER: This guide was made possible by funding from the American Cancer Society. The views expressed in the material do not necessarily reflect the views of the American Cancer Society.