Evaluating Provider Perspectives on Shared Decision Aids for Individuals at 'Increased Risk' for Colorectal Cancer

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Abstract

Background: Colorectal cancer (CRC) is a significant contributor to cancer-related deaths in the United States, impacting individuals under care at the Veterans Affairs (VA) due to higher comorbidities and socio-economic challenges. While veterans may face unique risk factors such as exposure to certain environmental hazards, screening practices have shown to lower CRC incidence rates.

Aims: This quality improvement project evaluates provider perspectives on shared decision-making aids (SDAs) for individuals at 'increased risk' for CRC within a VA Community Based Outpatient Clinic (CBOC).

Method: Guided by the Lean Six Sigma's Define, Measure, Analyze, Improve, and Control framework, this project followed a three-step approach. First, primary care providers (PCPs) at the clinic were surveyed to assess the current practice of utilizing CRC screening guidelines and their perspectives on shared decision-making aids. Subsequently, a shared-decision aid (SDA) was developed. Third, the shared-decision aid was presented to the PCPs; followed by a post-survey to assess their perceptions of the feasibility and acceptability of implementing the tools, along with any feedback.

Results: The findings suggest PCP familiarity with CRC screening guidelines however lack clarity in differentiating between 'average' and 'increased risk' for CRC. PCPs reported that the developed SDA was acceptable and feasible to be implemented into practice at the clinic to support the screening of individuals at 'increased risk' for CRC.

Conclusions: The project underscores the significance of SDAs and the advantages of integrating the developed tool into the CBOC to facilitate discussions surrounding CRC screening for at-risk individuals.

Evaluating Provider Perspectives on Shared Decision Aids for Individuals at 'Increased Risk' for Colorectal Cancer

Colorectal cancer (CRC) ranks as the third leading cause of cancer-related deaths in the United States (Morrow & Greenwald, 2022), constituting 8.6% of all cancer-related deaths in 2023 (National Cancer Institute, 2023). Individuals under care at the Veterans Affairs (VA) often face higher comorbidity, age-related challenges, and socio-economic disadvantages compared to the general population (Le et al., 2020; Zullig et al., 2016). Health behaviors and exposure to certain risk factors differ among veterans, potentially influencing their risk of developing CRC (Le et al., 2020; Zullig et al., 2016). Individuals in the military may be more likely to be exposed to radiation, air pollutants, solvents, and pesticides which have been linked to some digestive cancers compared to the general population (Bytnar et al., 2021); however Zhu et al. (2009) and Yamane (2006) both studied that incidence rates of CRC among men were significantly lower in the U.S. active-duty military compared to the general community; likely due to robust screening and surveillance practices.

The incidence of CRC in the U.S. has progressively decreased over the past two decades (American Cancer Society [ACS], 2021), mainly attributed to early detection and removal of precancerous polyps through screenings (Sikka et al., 2021). Observational studies indicate that CRC screening and surveillance can significantly reduce both incidence and mortality rates for cancer (Doubeni et al., 2018; Nishihara et al., 2013; Zauber et al., 2012). CRC screening guidelines are mainly available from four organizations: United States Preventative Services Task Force (USPSTF), National Comprehensive Cancer Network (NCCN), American Cancer Society (ACS) and American College of Gastroenterology (ACG). The USPSTF provides guidelines for 'average risk' adults. NCCN, ACS, and ACG all provide recommendation for individuals with 'average,' 'increased risk' as well as 'high' risk. According to Volk et al (2018), provider recommendations are critical in patient adherence to recommended screenings, as outlined in these guidelines.

The USPSTF recommends screening for 'average risk' adults aged 45 to 75 using various methods, including stool tests and colonoscopy (Davidson et al., 2021). Colonoscopies are both diagnostic and therapeutic, with the ability to detect and remove polyps due to early-stage CRC (Davidson et al., 2021; Morrow & Greenwald, 2022). 'High-risk' individuals, defined by genetic predispositions or specific health histories, may require earlier or more frequent CRC screenings, according to guidelines from NCCN, ACS, and ACG. Please note that individuals who are at 'high risk' are not part of the target population in this quality improvement (QI) project due to specific guidelines which are detailed to each specific patient, taking into consideration genes and phenotypes (NCCN, 2023). This QI project focuses on individuals at an 'increased risk' for CRC, as outlined by the NCCN (2023). 'Increased risk' includes: those with a personal history of low-risk adenoma or polyp(s) (≤2 polyps less than 1cm), low-risk serrated polyp or sessile serrated lesions (no dysplasia, ≤2 polyps less than 1cm) that elevate cancer risk; individuals with a personal history of CRC or childhood cancer, inflammatory bowel disease (ulcerative colitis or Crohn's colitis), cystic fibrosis, or a first-degree relative with CRC at any age (not considered a hereditary cancer syndrome) are also included in this 'increased risk' population (NCCN, 2023).

At the Community Based Outpatient Care Clinic (CBOC), a significant portion of patients are over 65 years old, with many having undergone colonoscopies. If a colonoscopy discovers a larger adenoma or polyp, individuals are not advised to undergo FIT testing because they are deemed to be at an 'increased risk' for CRC (NCCN, 2023). Approximately half of all veterans undergoing colonoscopies have polyps, and while most are not cancerous, colonoscopies are crucial for removing pre-cancerous polyps before they develop into CRC (VA, 2021). Colonoscopies are vital for detecting and removing pre-cancerous polyps. The CBOC currently relies on a nurse practitioner to assess colonoscopy records and recommend follow-up procedures based on findings. Identifying individuals at 'increased risk,' at the CBOC has not been a challenge; however, the specific resources or guidelines used to guide appropriate screening for those in the 'increased risk' category remain unclear.

Available Knowledge

Nationwide, the VA has implemented QI programs to enhance CRC screening within primary care, including integrating CRC screening reminders in the electronic medical record (EMR) to aid in identifying individuals due for CRC screenings and implementing a mailed FIT test program for 'average risk' patients (Zullig et al., 2016). These initiatives have likely improved early-stage detection and diagnosis of CRC, with national VA screening rates reaching nearly 80% (Zullig et al., 2016; Goldshore et al., 2020). Current guidelines recommend colonoscopy for CRC screening or surveillance in individuals at 'increased risk', determined based on risk factors. Screening colonoscopy findings help define future CRC risk and the need for repeat screenings. For 'average risk' patients, the USPSTF suggests non-invasive screening options like FIT tests (NCCN, 2023; Sekiguchi et al., 2016; Wilkins et al., 2018; Davidson et al., 2021).

Current evidence emphasizes shared decision making; a collaborative process allowing patients and primary care providers (PCPs) to make decisions together with scientific evidence and values of each individual patient, improves CRC screening (Volk et al., 2018). Printed or electronic decision aids can be used to help providers guide these conversations with patients. Literature review was performed in PubMed and Google Scholar in May 2023 to review the current resources applying the guidelines available for screening individuals at 'increased risk' for CRC (ACG, 2021; ACS, 2021; NCCN, 2023; Davison et.al., 2021) into shared decision aids (SDA). A five-year limit was included on the search to include the most up to date resources. Comprehensive resources exist for 'average risk' individuals, including an online decision aid by the VA (Veterans Health Library, n.d.). However, there's a gap in resources for providers to discuss screening options for individuals with 'increased risk' of CRC. The NCCN (2023) adapted provider guidelines into a patient-specific tool, where screening guidelines for 'increased risk' vary depending on family history, and quantity or size of adenoma or polyp(s). The NCCN (2021) tool identified a recommended time frame to follow up on repeat screening colonoscopy.

However, the timeline on the NCCN (2021) tool is listed in a timeframe (a range of 7-10 years) and does not specify how to discuss this follow-up range with patients. The VA's local gastroenterology specialists prefer using the ACG (2021) because the ACG (2021) focuses specifically on evidence-based recommendations for gastroenterology.

Rationale

The Lean Six Sigma's Define, Measure, Analyze, Improve, and Control (DMAIC) framework (Ahmed, 2019) was applied to assess the QI project. In healthcare, using DMAIC can enhance patient-centered services and overall satisfaction (Ahmed, 2019; Thakur et al., 2023). This framework helps identify areas for improvement and guides the process of change. The five-step approach involves defining the problem, quantifying it, analyzing root causes, improving the process by addressing those causes, and finally, controlling the improved process and future performance (Ahmed, 2019; Furterer, 2014). Utilizing the DMAIC framework's five steps, we have confirmed that providers are aware of the updated CRC screening guidelines. We have also identified the importance of focusing on provider perceptions and barriers to screening this population (as illustrated in the cause-and-effect diagram in Appendix A) to improve clinical tools for discussing guidelines with individuals at 'increased risk' for CRC, within the targeted CBOC.

Specific Aims

The long-term goal of this QI project was to improve current CRC screening rates to 80% (the goal of the national VA CRC screening rate) within the veteran population at the CBOC in Oregon (Korshak et al, n.d.). Currently, despite existing clinical guidelines, there is no standardized tool for shared decision making between providers and patients regarding CRC screening for individuals at 'increased risk'. This quality improvement project evaluates provider perspectives on shared decision-making aids (SDAs) for individuals at 'increased risk' for CRC within a VA Community Based Outpatient Clinic (CBOC).

Methods

Context:

The CBOC, serving U.S. Veteran population within the Pacific Northwest of the U.S is affiliated with the larger Veterans Health Administration organization, the largest integrated health care system in America. This subset clinic serves veterans who are at 'increased risk' for chronic disease such as cancer (Le et al., 2020; Zullig et al., 2016). The CBOC is a primary care clinic with PCPs including 4 medical doctors (MD) and 9 nurse practitioners (NP) overseen by a clinic manager, who is a Doctor of Nursing Practice (DNP). The clinic manager is part of the dedicated QI team. This QI project was to assess provider perspectives on shared decision-making aids (SDAs) for individuals at 'increased risk' for CRC, and to develop/evaluate a SDA for these individuals. Each provider cares for 800-1,000 patients with an interdisciplinary team comprised of: an administrator scheduler, Licensed Practical Nurse (LPN), Registered Nurse (RN), and Clinical Pharmacist; the combined team is referenced as a Patient Aligned Care Team (PACT). CBOC staff also includes two behavioral health specialists and two social workers. The EMR system used by the CBOC is called Computerized Patient Record System where medical charting, health screening reminders, and medication prescriptions and referrals are placed. As of June 2023, the veteran clinic has 9,800 patients in their provider panels. The patient population is 55.8% over the age of 65 years-old. The clinic serves patients from surrounding rural communities, particularly allowing patients to be seen closer to home rather than commuting to the larger clinic and hospital located in an urban city about an hour away.

Interventions

The first step was to evaluate PCPs current practices in utilizing CRC screening guidelines and assess their perspectives on shared decision-making aids (SDA) for screening individuals at 'increased risk' for CRC. Following the introduction of a developed SDA to PCPs, PCP perception on the feasibility and acceptability of a SDA for individuals at 'increased' risk' for CRC was assessed. Data were assessed

by asking providers to fill out a pre- and post-survey via electronic survey through Qualtrics (Qualtrics^{XM}, Provo, UT, USA), where data were de-identifiable. During a 3-week period in summer 2023, the PCPs at the CBOC completed the pre-survey. The survey included open-ended questions along with questions where providers self-report on a scale from 1-5 using the Likert Scale (Joshi et al., 2015). A reminder email to complete the survey was sent to providers one week after the pre-survey was distributed. After receiving feedback from the initial evaluation of providers, a tool was developed using data gathered from the literature review (see Appendix B). Finally, the tool was presented at a staff meeting in October 2023 and evaluated by providers through completing a post-survey on Qualtrics to assess provider's perspectives on the feasibility and acceptability of implementing a SDA at the CBOC.

After introducing the tool to PCPs (n=12) and gathering data in a post-survey, interviews with the site point of contact (clinic manager) were conducted regarding the performance of the tool and no additional changes on the tool was requested. Upon completion of the pre-and-post survey, provider feedback was assessed to address the feasibility and acceptability of using a SDA to screen 'increased risk' veterans for CRC. The impact of this project within the CBOC is not immediately known. Using the DMAIC framework, steps toward improvement process were made, and recommendations were given for further cycles of QI to improve CRC screening rates.

Measures

The primary outcomes for this project were the completion of the pre and post-survey (Appendix C), the development of a SDA (Appendix B), and data on the feasibility and acceptability of implementing the SDA for screening individuals at 'increased risk' for CRC. The outcome measure included completing the goal of 75% of the clinic providers to complete the pre-and-post survey.

Analysis

Both pre- and post-survey data were collected using Qualtrics software (Qualtrics^{XM}, 2023). Qualitative data were obtained through open-ended questions on the survey, and the data were

assessed for common themes throughout written responses. Quantitative data were obtained via Likert scale questions, to rate the degree to which providers agree or disagree with specific statements (Sullivan & Artino, 2013). Quantitative data from the survey results were presented in the form of bar and pie charts. .

Ethical Considerations

Ethical considerations to consider in approaching veterans in this project included considering veteran health literacy when developing a SDA. Strategies such as keeping in mind minimal text focusing on graphics, and visual aids can improve use of a CRC SDA. A cross-sectional study of outpatient veterans self-reported their health literacy level at 40% (Rasu et al., 2018), indicating that more than half of patients find it difficult to understand health information to make their health-related decisions. Another ethical consideration included provider choice to opt-out of the QI project. To maximize the PCP's participation in the surveys, we designed the survey to be brief, taking less than 5 minutes to complete, and respondents had the flexibility to complete it at any time during the two-week survey period. The survey was conducted online via Qualtrics^{TM}, and all personal information was de-identified to maintain confidentiality. We respected their decision not to participate in the survey. This QI project aimed to help improve CRC screening utility; as if CRC is caught early is often preventable (Morrow & Greenwald, 2022).

Results

The pre-survey was sent out to all 12 PCPs at the CBOC and a total of 66.6% (n=8 out of 12) completed the pre-survey. The majority of PCPs who responded to the survey (n=7) noted they were familiar with guidelines for CRC screening and were comfortable differentiating 'average' risk from 'increased risk'. Half of the PCPs (n=4 out of 8) were using a guideline but they were using the USPSTF guideline, which does not differentiate between 'average' risk and 'increased' risk for CRC. Majority of (87.5%, n=7 out of 8) of the PCPs noted they somewhat-or strongly-agree to introduce a SDA for this population of 'increased risk' for CRC and noted that such tool would facilitate discussions about

screening for individuals at an 'increased risk.' The PCPs emphasized the importance of involving the VA gastroenterology (GI) specialty in discussions about changes in screening within primary care, as patients are referred to the GI specialty clinic for colonoscopies. One provider noted that at times, when PCPs order a colonoscopy for a patient and identify the risk factor in the consult, the patient may qualify for a colonoscopy by being at 'increased risk.' However, the consult is declined by the GI team.

About 75% (n=9 out of 12) PCPs completed the post-survey; 77% (n=7) indicated that the developed tool aids in identifying individuals at 'increased risk' for CRC. Over a half (55.5%, n=5 out of 9) agreed that the developed tool would aid in their discussion about CRC screening in this risk group, whereas 44.5% (n=4) said the tool would not aid in the discussion. Majority (66.6%, n=6) of the PCPs would use this tool in practice. Responses to open-ended questions included making the hand-out larger for improved readability, including hyperlink to ACG guideline, making the tool more time efficient to use in clinic, and making the information available within the electronic health record. No specific comments were noted on the content of the tool and there were no unintended consequences throughout the QI project. We did not achieve our 75% completion goal for the pre-survey, whereas we met this goal for the post-survey.

Discussion

This quality improvement project examined provider perspectives on SDA for individuals at 'increased risk' for CRC within the CBOC. Furthermore, the project sought to create an appropriate SDA and evaluate provider perspectives on shared decision-making aids (SDAs) for individuals at 'increased risk' for CRC at the CBOC from the provider's view. The majority of PCPs at the CBOC were familiar with the CRC screening guidelines and comfortable differentiating between 'average' and 'increased' risk patients. However, the results indicate that the majority were not using the correct guideline(s). Half of the PCPs noted a strong need for development of a SDA and the majority somewhat and strongly agreed that a SDA would support and facilitate conversation around screening guidelines for individuals

at ‘increased risk.’ Implementing a SDA could encourage PCPs to follow the appropriate guideline(s) and offer a tool to facilitate discussions about CRC screening with patients. Including the VA gastroenterology (GI) specialty in discussions about screening within primary care would be valuable, as the GI specialty clinic is where patients must go to receive a colonoscopy. The development of the SDA was well-received by the majority of respondents, who believed that the tool would aid in identifying individuals at ‘increased risk’ for CRC and facilitate discussions about screening. Suggestions for improvement included making the tool more time-efficient, providing access to the tool within the EMR, and including a hyperlink to the ACG guideline.

Interpretation

The outcomes of this QI project underscore the necessity for a standardized tool facilitating shared decision making for individuals at ‘increased risk’ for CRC between providers and patients. The discrepancy in the application of providers using guidelines that did not distinguish between ‘average’ and ‘increased’ risk screening for CRC demonstrates a lack of understanding among providers regarding the crucial importance of differentiating risk categories for effective CRC screening. Implementing SDA can reinforce knowledge for providers and facilitate discussion about CRC in the population at increased risk for CRC.

The post-survey assessments demonstrated the effectiveness of the tool in aiding providers to identify individuals at ‘increased risk’ and facilitating discussions around CRC screening. Importantly, providers recognized the tool's value in enhancing their ability to address the specific needs of patients at increased risk for CRC. While some previous studies addressed (the importance of) shared decision making in CRC screening (Volk et al., 2018), this was the first study to specifically focus on 'increased risk' populations within the veteran context. The project's impact extends beyond the immediate improvement in CRC screening rates among VA patients; it has also positively influenced healthcare providers' awareness of providing timely screening for CRC based on risk factors.

Discrepancies between anticipated and observed outcomes can be attributed to the dynamic nature of healthcare contexts. The initial assumption was that providers would readily adopt the tool; however, some hesitancies were noticed during post-survey. This variance underscores the importance of acknowledging and addressing contextual factors, such as existing workflows, institutional practices, and provider preferences, to enhance the likelihood of successful tool implementation in the future. Future QI projects could look at the costs of implementation compared to the long-term benefits of improved health outcomes and potential cost savings associated with early detection and prevention of CRC in the veteran population. The collaborative efforts between the GI specialty clinic and primary care clinic in developing, implementing, and refining SDA are imperative for advancing healthcare practices and patient outcomes in the realm of CRC screening.

Limitations

The survey distributed to PCP's was designed to be brief; however, this brevity may have limited the depth of the responses received. This project solely focused on provider perspectives, and due to its limited scope, did not directly assess patient outcomes or satisfaction with the SDA. Conducted at a single clinic within the Veterans Health Administration, the findings cannot be generalizable to other healthcare settings outside of this specific. Despite these limitations, as the first of its kind, this project still offers valuable insights into the need for and feasibility of implementing a SDA for CRC screening among individuals at an 'increased risk'.

Recommendations

Based on the findings of this QI project, several recommendations are suggested. First, promoting awareness and education among healthcare providers about using the appropriate guidelines for CRC screening in individuals at 'increased risk' would be crucial. This can be achieved through regular training sessions, workshops, and informational materials to healthcare providers particularly at primary care clinics. Second, the developed SDA should be refined based on feedback from the post-survey. This

includes making the tool more time-efficient, improving its readability, and integrating it into the EHR for easy accessibility. Third, collaboration with the VA GI specialty clinic should be nurtured to streamline the process of CRC screening through regular communication, joint meetings, and shared decision making between primary care providers and GI specialists within the VA entity, especially for screening 'increased risk' individuals. Lastly, future research should assess the effectiveness of the SDA by assessing patient outcomes and satisfaction. By implementing these recommendations, the goal of meeting CRC screening rate of 80% for CRC can be achieved, ultimately leading to better health outcomes and reduced mortality from CRC.

Conclusion

This quality improvement project evaluates provider perspectives on SDAs for individuals at 'increased risk' for CRC within the CBOC. This project demonstrates the value of SDA and the benefit of the implementation of this tool in the CBOC to facilitate discussions about CRC screening for veterans at increased risk.

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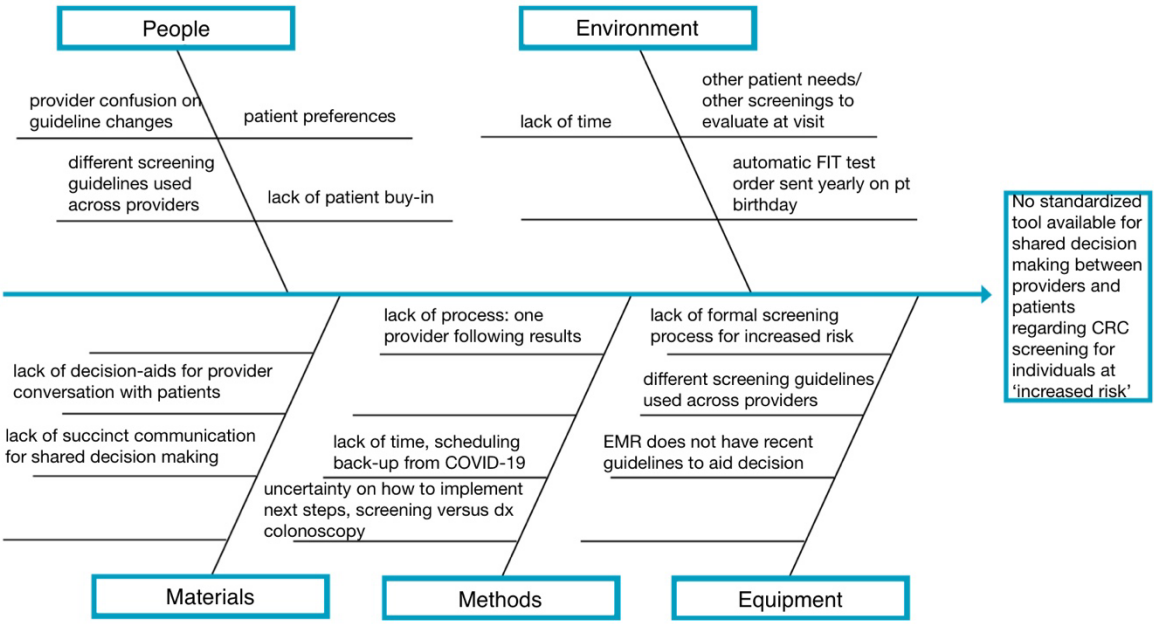
Appendix A: Cause and Effect Diagram



Appendix B: Patient and Provider Handout

INCREASED RISK FOR COLORECTAL CANCER

WHAT IS COLORECTAL CANCER?

Colorectal cancer usually starts from abnormal cell growths also known as polyps in the colon or rectum.

Some types of polyps can be harmless, however over time, other polyps have an increased risk of turning into cancer.

If left untreated, cancer can spread into layers of the colon or rectal wall or spread to other parts of the body.

The United States Preventative Services Task Force recommends colorectal cancer screening for adults aged 45 - 75 years old; with screening indicated to start earlier and be screened more often for those at increased risk.

WHO IS AT INCREASED RISK

- ✓ **Personal history of adenoma or polyp.**
- ✓ **Personal history of inflammatory bowel disease (Ulcerative colitis or Crohn's).**
- ✓ **First degree relative with CRC (parent, sibling, or child)**
- ✓ **Personal history of cystic fibrosis.**
- ✓ **Personal history of colorectal cancer or childhood cancer.**
- ✓ **Genetic syndrome such as lynch syndrome or familial adenomatous polyposis (FAP).**

WHY GET SCREENED FOR COLORECTAL CANCER?

A screening test is used to look for disease if you do not have any symptoms. Screening can detect colorectal cancer before symptoms begin. A procedure called a colonoscopy can aid in removing polyps while they are small and may prevent cancer from forming.

COLONOSCOPY IS THE RECOMMENDED SCREENING METHOD FOR INDIVIDUALS AT INCREASED RISK FOR COLORECTAL CANCER.

With personal or family risk factors, there can be an increased chance of colorectal cancer. Discuss your risk factors with your provider to determine when and how often to screen.

SCREENING SAVES LIVES!

Get familiar with your personal and family health history as this information can change your risk factors for colorectal cancer.

Share screening results with your family so that family members can make informed decisions based on your screening results!

INCREASED RISK FOR COLORECTAL CANCER

TALK WITH YOUR HEALTHCARE PROVIDER IF YOU HAVE ANY SCREENING CONCERNS

- ☐ I am embarrassed to have a colonoscopy or talk with my family about it.
- ☐ I have concerns about the prep for screening.
- ☐ I have concerns about the costs and health insurance coverage.
- ☐ I have concerns about transportation for the procedure.
- ☐ I have concerns about the risks involved with the procedure.
- ☐ I am concerned about my personal or family history and how it relates to my risk of colorectal cancer.
- ☐ I have other concerns:

_____
_____
_____
_____

(Adapted from Dartmouth Health, 2022)

9 OUT OF 10

cases of colorectal cancer can be treated successfully when found early!

LOWERING YOUR RISK

Engage in regular physical activity.

Maintain a healthy weight.

Incorporate nutritious foods like vegetables, fruits, and whole grains in your diet.

Minimize red meat and processed meats.

Seeking assistance to quit smoking if you currently smoke.

Consume sufficient dietary fiber.

Moderate alcohol intake if you choose to drink alcoholic beverages.

Schedule routine medical examinations.

TALK TO YOUR PROVIDER TODAY ABOUT THE BEST SCREENING TIMELINE FOR YOU.

INCREASED RISK FOR COLORECTAL CANCER

FOR PROVIDERS

WHO IS AT INCREASED RISK

- ✓ **Personal history of adenoma or polyp.**
- ✓ **Personal history of inflammatory bowel disease (Ulcerative colitis or Crohn's).**
- ✓ **First degree relative with CRC (parent, sibling, or child)**
- ✓ **Personal history of cystic fibrosis.**
- ✓ **Personal history of colorectal cancer or childhood cancer.**
- ✓ **Genetic syndrome such as lynch syndrome or familial adenomatous polyposis (FAP).**

COLONOSCOPY IS THE RECOMMENDED SCREENING METHOD FOR INDIVIDUALS AT INCREASED RISK FOR COLORECTAL CANCER.

FAMILY HISTORY OF COLORECTAL CANCER OR POLYPS

- **If one or more first degree relatives have had colorectal cancer or advanced polyp in first degree relative ≤ age 60 or**
- **If two or more first degree relatives at any age have CRC or advanced polyps:**
  - Initial screening: colonoscopy begins at age 40 or 10 years before the youngest first degree relative's diagnosis, whichever is earlier.
  - Frequency of screening: 5 years or per colonoscopy findings.
- **If one first degree relative has CRC or advanced polyp ≥ age 60 or**
  - Follow average-risk screening recommendations.
- **Consider genetic evaluation for individuals with a higher familial burden of colorectal cancer:**
  - More affected relatives and or younger ages of diagnosis
  - If known genetic risk factor such as Lynch Syndrome,, colonoscopies are recommended around age 20 and then yearly after age 40.

POLYPS THAT INCREASE RISK

- Advanced adenoma:
  - High grade dysplasia
  - Greater than 1cm in size.
  - Villous or tubulovillous histology.
- Sessile serrated polyps
- Polyps with dysplasia
- Quantity of polyps

INCREASED RISK FOR COLORECTAL CANCER

PERSONAL HISTORY OF POLYPS

- **Less than 20 hyperplastic polyps less than 10mm in size:**
  - Follow average risk guidelines and re-screen in 10 years or with new onset of symptoms.
- **1 or 2 adenomas less than 10mm:**
  - Follow-up colonoscopy: 7 to 10 years.
- **1 or 2 sessile serrated polyps:**
  - Follow-up colonoscopy: 5 years
- **1 or 2 advanced adenomas (high grade dysplasia, villous or tubulovillous histology):**
  - Follow-up colonoscopy: 3 years
- **3 to 10 adenomas or sessile serrated polyps:**
  - Follow-up colonoscopy: 3 years
- **11 or more adenomas or sessile serrated polyps:**
  - Genetic screening recommended to check for polyposis syndrome.

PERSONAL HISTORY OF INFLAMMATORY BOWEL DISEASE

- **Including ulcerative colitis or crohn's colitis:**
  - Initial colonoscopy: 8 years after diagnosis or earlier if family history of colorectal cancer.
  - Frequency of screening: surveillance colonoscopies at intervals of one to three years ,determined by collective risk factors for colorectal cancer and per previous colonoscopy findings.

PERSONAL HISTORY OF COLORECTAL CANCER

- **Following curative resection, individuals are at increased risk of getting a new cancerous polyp:**
  - Follow individualized surveillance recommendations. Most surveillance includes colonoscopy 1 year post-op, if normal, repeat colonoscopy in 3 years, then 5 years.

9 OUT OF 10

cases of colorectal cancer can be treated successfully when found early!

scan the QR code for references and additional resources

Appendix C

Pre-Survey

Overview of Survey

Isabel Garcia Miller, OHSU FNP DNP Candidate, is beginning her quality improvement project. The aim of the project is to improve current colorectal cancer (CRC) screening rates among veteran population through evaluating provider perspectives on the availability and utility of shared decision aids for individuals at 'increased' risk for CRC.

As part of our efforts to develop a tool for implementation in this clinic, this survey aims to assess the tools and resources you currently utilize to guide shared decision making for individuals at 'increased risk" for CRC.

This questionnaire is optional. Answers will be kept anonymous. The questionnaire will take only take 2-3 minutes. Your feedback is appreciated.

According to National Comprehensive Cancer Network (NCCN), 'Increased' risk for CRC includes (NCCN, 2023):

- Personal history of low-risk adenoma or polyp(s) (≤2 polyps less than 1cm), low risk serrated polyp or sessile serrated lesions

(no dysplasia, ≤2 polyps less than 1cm) that increase cancer risk.

- Personal history of colorectal cancer or childhood cancer.

- Personal history of inflammatory bowel disease (ulcerative colitis or crohn's colitis)

- Personal history of cystic fibrosis .

- First degree relative with CRC at any age (and not considered of a hereditary cancer syndrome)

Please respond by marking one box per statement or question.

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree
I am familiar with the guidelines for screening individuals at 'increased' risk of Colorectal Cancer (CRC)	○	○	○	○	○

Strongly Disagree Somewhat Disagree Neither agree nor disagree Somewhat Agree Strongly Agree

I am comfortable differentiating CRC screening guidelines for individuals at average risk vs individuals at 'increased' risk for CRC.	○	○	○	○	○

Please respond by marking one box per statement or question.

	No	Yes
I am currently using a screening guideline to screen individuals at 'increased' risk for CRC.	○	○

If a guideline is being used, please select what you currently use (please select ALL that apply).

- ○ National Comprehensive Cancer Network (NCCN)
- ○ United States Preventative Service Task Force (USPSTF)
- ○ American Cancer Society (ACS)
- ○ Other: [ ]

If a guideline is being used, please note in the text-box what part of the guideline presents challenges in screening for CRC for individuals at 'increased' risk.

Shared Decision Making.

Shared decision-making is defined as allowing patients and healthcare providers to make decisions together with scientific evidence and values of each individual patient. A shared decision-making tool is a resource that can aid this process (Volk et al., 2018).

Please respond by marking one box per statement or question.

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The guideline and resource(s) I am currently using to screen for individuals at 'increased' risk for CRC is sufficient for shared decision-making.	○	○	○	○	○
I perceive a strong need for development of a shared decision-making tool/decision aid to screen for individuals at 'increased' risk for CRC.	○	○	○	○	○

Introducing a shared decision-making tool in the clinic setting would facilitate discussions about screening for individuals at an 'increased' risk of CRC.	○	○	○	○	○

Please respond by marking one box per statement or question.

	Extremely unlike	Somewhat unlikely	Neither likely or unlikely	Somewhat likely	Extremely likely
How likely are you to use a shared decision aid tool to discuss screening for CRC?	○	○	○	○	○

Please share any thoughts you have around this subject in the text box below. What suggestions do you have for developing a shared decision aid for patients at 'increased' risk for CRC?

Post Survey

Overview of Survey

Thank you for attending today's presentation. We value your input about the tool developed. Please take a moment to answer the following questions.

Your participation is is greatly appreciated.

Please respond by marking one box per statement or question.

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree
This tool will aid in identifying individuals at 'increased' risk for CRC.	○	○	○	○	○
This tool would help me tailor my discussion about CRC screening for individuals at 'increased' risk.	○	○	○	○	○
How likely are you to use this tool in your current practice?	○	○	○	○	○

What suggestions do you have for improving this shared decision making tool? Please specify.

Appendix D

OREGON HEALTH & SCIENCE UNIVERSITY

IRB MEMO

Research Integrity Office
3181 SW Sam Jackson Park Road - L106RI
Portland, OR 97239-3098
(503)494-7887 irb@ohsu.edu

NOT HUMAN RESEARCH

August 2, 2023

Dear Investigator:

On 8/2/2023, the IRB reviewed the following submission:

Title of Study:	Evaluating Provider Perspectives on the Availability and Utility of Shared Decision Aids for Individuals at Increased Risk for Colorectal Cancer
Investigator:	MinKyoung Song
IRB ID:	STUDY00026119
Funding:	None

The IRB determined that the proposed activity is not research involving human subjects. IRB review and approval is not required.

Certain changes to the research plan may affect this determination. Contact the IRB Office if your project changes and you have questions regarding the need for IRB oversight.

If this project involves the collection, use, or disclosure of Protected Health Information (PHI), you must comply with all applicable requirements under HIPAA. See the HIPAA and Research website and the Information Privacy and Security website for more information.

Sincerely,

The OHSU IRB Office

Appendix E

VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY ASSURANCE OR IMPROVEMENT (QA/QI) OR RESEARCH?

Instructions: In accordance with VHA Handbook 1058.05, "VHA Operations Activities[1] That May Constitute Research", VAPORHCS employees may conduct certain operations activities which may or may not constitute research. Whenever the research versus non-research status of an operations activity may be in question, a determination of the status must be made.

Please submit this form to the VAPORHCS Research Office by sending a scanned, signed copy to pvamc-irb@va.gov or via fax to 503-273-5152. Please reference the VHA Operations Activities that May Constitute Research decision tree for an overview of how a decision between research and non-research activities is determined.

Project Title: Evaluating Provider Perspectives on the Availability and Utility of Shared Decision Aids for Individuals at Increased Risk for Colorectal Cancer_	
Responsible Project Lead: Kerri Woelfle DNP	**Email**: kerri.woelfle@va.gov
Department: Salem CBOC	**Role/Title**: DNP, Nurse Practitioner/Clinical Practice Manager
Are VAPORHCS Medical Center nurses members of the project team? *If yes, once a determination is made, a copy of this signed form will be sent to the Evidence Based Practice Nursing Committee*	☐ YES ☐ NO

CONDITIONS TO BE CONSIDERED FOR DETERMINATION OF RESEARCH VS. NON-RESEARCH OPERATIONS		
NOTE: If answers to questions 1 through 11 are marked **"TRUE"** the project is more than likely not research. *For answers that are marked "false," please provide an explanation in the text fields below regarding how this project may still be QA/QI or contact pvamc-irb@va.gov for guidance.*	**TRUE**	**FALSE**
1) The project is designed and/or implemented for internal VA purposes in support of the VA mission(s).	X	☐
2) The findings are designed to be used by and within VA (or by entities responsible for overseeing VA).	X	☐
3) The project is not designed for the purpose of contributing to generalizable knowledge. [2]	X	☐
4) The project is not designed to produce information that expands the knowledge base of a scientific discipline (or other scholarly field).[2]	X	☐
5) The project is not funded or otherwise supported as **research** by the Office of Research and Development (ORD) or any other entity (including the Center for Healthcare Equity Research and Promotion [CHERP] or the VISN 4 Competitive Pilot Project Funding [CPPF] program).	X	☐
6) The project does not involve administration, dispensing and/or use of any drugs, devices and/or biologics.	X	☐
7) The project does not involve design characteristics typically reflective of research, e.g.: ● Double-blind interventions ● Use of placebo controls ● Prospective patient-level randomization to clinical interventions not tailored to individual benefit	X	☐

8) The proposal includes provisions to ensure that the safety, rights, and welfare of patients and staff are appropriately protected as applicable.[3]	X	☐
9) The project is **not** intended to meet the requirements set forth by a masters program (or other university level degree program) that requires "research" be conducted.	X	☐
10) The activity **will not be** supplemented or modified before, during, or after implementation in order to produce information to expand the knowledge base of a scientific discipline or scholarly field of study or otherwise contribute to generalizable knowledge.	X	☐

PROJECT DESCRIPTION
Reason for Project X Locally initiated ☐ Mandated by
In the following fields, please provide enough information about the proposed project that a reviewer understands why and how the work will be performed. Please define all acronyms.
Objectives(s): *What is the purpose of the project? What are the issues/questions being addressed and why?* **The aim of the project is to improve current colorectal cancer screening rates among the veteran population through provider perspectives on the availability and utility of shared decision aids for individuals at increased risk for colorectal cancer.** **Colorectal cancer screening within the VA is widely practiced and is guided by quality improvement programs. It is unknown how populations at 'increased risk' for colorectal cancer are being screened.**
Methodology: *How will the work be conducted and where? Who will be involved? Please be detailed in how the work will be conducted including data collection and analyses.* **CBOC in pacific northwest with target population of adults greater than or equal to 45 years old at increased risk for colorectal cancer. The QI project will follow this five step process:** **1. Conduct a preliminary survey on provider current practices on screening individuals at increased risk for CRC.** **2. Assess perception of the utility of 'shared decision making tool'** **3. Develop a curated tool using data obtained from the provider surveys and evidence the literature has supplied.** **4. Present the develop tool to providers in a clinic session.** **5. Administer a post- survey to PCPs who attended clinic sessions.** **Upon completion of the pre-and post survey, provider feedback can be assessed to address the feasibility of using a shared decision aid to screen 'increased risk' veterans for colorectal cancer.** **Outcome measure includes completing the goal of 75% of the clinic providers (n=9) to complete the pre- and-post survey. The post survey will measure the provider's perceived feasibility in implementing the shared decision tool for screening individuals at increased risk for CRC.** **The analysis of the data will be measured through pre-and-post surveys which will include open-ended questions and the likert scale questions from 1-5 . Using the likert scale, the degree to which the provider agrees or disagrees with a statement will be evaluated.**

VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY ASSURANCE OR IMPROVEMENT (QA/QI) OR RESEARCH?

Impact/Significance: *What will be done with resulting information?* **The plan is to disseminate the results and create a shared decision aid for screening individuals at an increased risk for CRC at the clinic for implementation. Additionally, we intend to disseminate the results through a potential publication of the quality improvement project to demonstrate provider perspectives on the utility of shared decision aids for individuals at increased risk for colorectal cancer. The hope would be that with the knowledge from this project, future quality improvement projects could implement a shared decision aid for this population of individuals at increased risk for colorectal cancer.**

Signature of Responsible Project Lead[4]: Kerri Woelfle DNP Date: 8/4/23

Print Name of Responsible Project Lead:Kerri Woelfle DNP

For projects that involve using/collecting data from sites other than those covered by the VAPORHCS

1. *If the project is being* ***conducted/coordinated*** *at a site other than the VAPORHCS:*

   Signature of Medical Center Director: Kerri Woelfle Clinical Practice Manager Date: 08/08/2023

2. If your project includes obtaining data or participation from VA sites other than those covered by the VAPORHCS you must request approval from the facility director(s) prior to initiating the project at those facilities.

FOR VAPORHCS IRB OFFICE USE ONLY BELOW THIS LINE

VAPORHCS ACOS/R&D Determination:
Note: The VAPORHCS ACOS/R&D has been designated by the VA Portland Health Care System Director and the VISN20 Network Director to serve as the individual who will evaluate and document the determination for projects conducted at the following VISN20 facilities: Alaska, Spokane, Walla Walla, Roseburg, and White City.

☑ **Not Research**. The ACOS/R&D has determined that based on the responses above and the proposed project description approval by an IRB or other review committee is not needed. The project is considered to be non-research VHA operations activity. If the results of this project are presented or published they cannot be presented as research, nor does it have research approval.

☐ **Research Project**. As designed this project requires review by an IRB or other appropriate review committee *prior* to initiation. Please refer to the VAPORHCS R&D website for guidance.

☐ Additional information is needed to make a determination. See comments below.

ACOS/R&D or IRB Analyst Comments:

VA Portland Health Care System (VAPORHCS)
Institutional Review Board (IRB)
CHECKLIST: QUALITY ASSURANCE OR IMPROVEMENT (QA/QI) OR RESEARCH?

VAPORHCS ACOS/R&D Signature: Steven K Dobscha 377225 Digitally signed by Steven K Dobscha 377225 Date: 2023.08.10 15:17:13 -07'00' **Date:** _____

Reference:

VHA Handbook 1058.05: VHA Operations Activities That May Constitute Research

[1]Examples of operations activities include activities designed for internal VA purposes, including routine data collection and analysis for operational monitoring, evaluation and program improvement purposes, VHA system redesign activities, patient satisfaction surveys, case management and care coordination, policy and guidance development, benchmarking activities, Joint Commission visits and related activities, medical use evaluations, business planning and development such as cost-management analyses, underwriting, and similar activities.

[2]Any change made before, during, or after implementation that results in an intent to expand the knowledge base of a scientific discipline or scholarly field of study, or otherwise contribute to generalizable knowledge, constitutes research and must be submitted to an IRB or other pertinent review committee.

[3]Potential risks (including physical, psychological, social, financial, privacy, and confidentiality, and other foreseeable risks) associated with non-research operations should be evaluated and appropriate protections established to mitigate them.

[4]Please note it is the responsibility of this individual and/or each VA author and coauthor (in cases of publication) to retain a copy of this form signed by the ACOS/R&D for a minimum of 5 years after publication and in accordance with any applicable records retention schedules. A copy will also be retained by Research Service and Quality & Performance Service.