Body System: Gastrointestinal

Session Topic: Colorectal Cancer

Educational Format		Faculty Expertise Required
REQUIRED	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. Please describe your interest and plan for teaching a PBL on your proposal form.

Professional Practice Gap	Learning Objective(s) that will close the gap and meet the need	Outcome Being Measured
• Knowledge and performance gap related to adherence to guideline recommendations for CRC screening • Knowledge gap related to the use of clinical decision making tools to increase patient engagement and facilitate share decision making • Knowledge gap related to following evidence-based recommendation for surveillance after polypectomy and CRC resection • New NCCN Colorectal Cancer Screening Guidelines. • FDA recently (Apr 2016) approved a second-generation serum assay for the detection of circulating methylated Septin 9 (Epi proColon 2.0) for colorectal cancer screening.	1. Screen for colorectal cancer using evidence-based criteria from current guidelines, including offering genetic testing for Lynch syndrome to newly diagnosed patients. 2. Utilize documentation of clinical decision tools to foster patient engagement and facilitate shared decision making about CRC screening options. 3. Establish an automated or staff-driven process, to send CRC screening invitations, containing personalized risk-estimates to patients. 4. Coordinate communication with the oncologist, including formal survivorship care plans, to outline follow-up plans for surveillance after polypectomy and CRC resection.	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.

ACGME Core Competencies Addressed (select all that apply)

X	Medical Knowledge		Patient Care
	Interpersonal and Communication Skills		Practice-Based Learning and Improvement

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	Professionalism	X	Systems-Based Practice

Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
    - Visit http://www.aafp.org/journals for additional resources
    - Visit http://familydoctor.org for patient education and resources
- Provide recommendations for screening for colorectal cancer using evidence-based criteria from current guidelines, including offering genetic testing for Lynch syndrome to newly diagnosed patients.
- Provide recommendations regarding the new (Apr 2016) FDA approved approved a second-generation serum assay for the detection of circulating methylated Septin 9 (Epi proColon 2.0) for colorectal cancer screening.
- Provide strategies and resources for utilizing documentation of clinical decision tools to foster patient engagement and facilitate shared decision making about CRC screening options.
- Provide strategies and resources to establish an automated or staff-driven process, to send CRC screening invitations, containing personalized risk-estimates to patients.
- Provide strategies and resources for coordinating communication with the oncologist, including formal survivorship care plans, to outline follow-up plans for surveillance after polypectomy and CRC resection.
- Provide recommendations regarding guidelines for Medicare reimbursement.
- Provide recommendations to maximize office efficiency and guideline adherence to the diagnosis and management of colorectal cancer.
- Provide an overview of newly available treatments, including efficacy, safety, contraindications, and cost/benefit relative to existing treatments.
- Provide instructions regarding the incorporation and use of the PCMH/ACO/Primary Care Core Measure Set into practice.

Needs Assessment:

Colorectal cancer (CRC) is the second leading cause of cancer-related deaths in the U.S. and the third most common cancer in men and women. In 2009, over 136,000 men and women were diagnosed in the U.S. with colorectal cancer, with an estimated 140,000 new cases in the U.S. for 2013.[1,2] Both incidence trends and mortality trends for colorectal cancer from 2000 to 2009 have

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decreased significantly for both men and women overall.[1] However, there are regional and state-level discrepancies in colorectal cancer screening rates. There are currently 14 states, mostly northeastern (e.g. Connecticut, Delaware, Maine), Minnesota and Washington, with the highest colorectal screening rates of between 69% to 75.2%.[1] Over half of, mostly mid-western states (e.g. Arkansas, Texas, Missouri, Kansas, New Mexico), have colorectal cancer screening rates below 64%.[1]

A recent American Academy of Family Physicians (AAFP) CME Needs Assessment Survey indicates that family physicians have a statistically significant and meaningful knowledge and skill gap related to their ability to provide optimal screening and management of colorectal cancer.[3] More specifically, CME outcomes from 2014 and 2015 AAFP FMX (formerly Assembly): *Colorectal Cancer* sessions indicate that physicians have knowledge and practice gaps with regard to implementation of screening guidelines; appropriate surveillance; improving patient adherence; identifying those who are at increased risk of colorectal cancer; and counseling patients regarding screening and shared decision making.[4,5]

Sigmoidoscopy or colonoscopy was ordered or provided at over 12 million ambulatory office visits in 2010, and rectal exams were ordered or provided at over 35 million ambulatory office visits in 2010.[6] However, only 7.7% of family physicians (with or without consultation only) provide colonoscopies in their practice.[7] The American Academy of Family Physicians (AAFP) *recommends* screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy, in adults, beginning at age 50 years and continuing until age 75years. The risk and benefits of these screening methods vary.[8] However, the AAFP *recommends against* routine screening for colorectal cancer in adults age 76 to 85 years. There may be considerations that support colorectal cancer screening in an individual patient. Additional AAFP clinical recommendations are as follows:[9,10]

- The AAFP *recommends against* screening for colorectal cancer in adults older than age 85 years.
- The AAFP *recommends against* the routine use of aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) to prevent colorectal cancer in individuals at average risk for colorectal cancer.
- The AAFP *concludes that the current evidence is insufficient* to assess the balance of benefits and harms of initiating aspirin use for the primary prevention of CVD and CRC in adults younger than 50 years. (2016).
- The AAFP *recommends* initiating low-dose aspirin use for the primary prevention of cardiovascular disease (CVD) and colorectal cancer (CRC) in adults aged 50 to 59 years who have a 10% or greater 10-year CVD risk, are not at increased risk for bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years. (2016).
- The decision to initiate low-dose aspirin use for the primary prevention of CVD and CRC in adults aged 60 to 69 years who have a 10% or greater 10-year CVD risk should be an individual one. Persons who are not at increased risk for bleeding, have a life expectancy of at least 10 years, and are willing to take low-dose aspirin daily for at least 10 years are more likely to benefit. Persons who place a higher value on the potential benefits than the potential harms may choose to initiate low-dose aspirin. (2016).

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- The AAFP *concludes that the current evidence is insufficient* to assess the balance of benefits and harms of initiating aspirin use for the primary prevention of CVD and CRC in adults aged 70 years or older. (2016).
- The AAFP *concludes that the evidence is insufficient* to assess the benefits and harms of computed tomographic colongraphy and fecal DNA testing as screening modalities for colorectal cancer.
- The AAFP *recommends* offering genetic testing for Lynch syndrome to patients newly diagnosed with colorectal cancer to reduce morbidity and mortality in relatives. Genetic testing should be offered to first degree relatives of those found to have Lynch syndrome, and those positive for Lynch syndrome should be offered earlier and more frequent screening for colorectal cancer.

As of June 2016 the U.S. Preventive Services Task Force (USPSTF) was in the process of updating their CRC screening recommendations.[11] Physicians should be familiar with these recommendations and implications to practice.

Additionally, physicians should be familiar with Choosing Wisely® best practice recommendations in preventive medicine:[12]

- Do not recommend screening for breast or colorectal cancer, nor prostate cancer (with the prostate-specific antigen test) without considering life expectancy and the risks of testing, over diagnosis, and overtreatment.
- Do not repeat colorectal cancer screening (by any method) for 10 years after a high-quality colonoscopy is negative in average-risk individuals.
- Avoid colorectal cancer screening tests on asymptomatic patients with a life expectancy of less than 10 years and no family or personal history of colorectal neoplasia.

Because family physicians practice in all areas, including rural and underserved areas, their ability to offer colonoscopy improves access to care for many needy populations; therefore, family physicians should consider making this service readily available also helps reduce the inconvenience to patients who might otherwise have to wait weeks or travel long distances to see a specialist for the procedure.[13]

An estimated 5% to 10% of all CRC cases are attributed to hereditary cause, and those patients with a family history of CRC may benefit from genetic testing and consultation with their family physician about risk reduction and early screening.[14,15] Given poor adherence to annual testing, physicians should consider, and be familiar with noninvasive screening tests, including microRNAs (miRNAs), plasma-based DNA (Epi ProColon®), and stool proteins the test.[16-18]

A review of the literature suggests patient, provider, and system-level barriers to CRC screening and management guideline adherence:[19-28]

- CRC screening is underutilized, with nearly half of age-eligible patients not being screened at recommended intervals.
- Inconsistent physician recommendation for CRC screening to patients who are not high-risk and without familial risk factors (e.g. women and smokers)
- Physicians recommending colonoscopy often do not provide information to patients about its risks or alternatives

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- Lack of a health maintenance visit
- Lack of patient knowledge and understanding about CRC and their family histories of polyp data
- Primary care shortage
- Most obese and overweight individuals fail to recognize their increased cancer risk
- Use of clinical decision aids to increase patient engagement and facilitate shared decision making is not routinely incorporated
- HIV patients are less likely to be current with their CRC screening

This literature review also yielded some strategies to improve CRC screening and management guideline adherence:[29,30]

- Colorectal cancer screening should begin at 50 years of age in average-risk individuals.
- The American College of Gastroenterology recommends that colorectal cancer screening begin at 45 years of age in black patients.
- Average-risk patients with normal findings on colonoscopy should have repeat colonoscopy in 10 years.
- Patients with small, distal hyperplastic polyps are considered to have a normal colonoscopy result and should have repeat colonoscopy in 10 years.
- Patients with 1 or 2 small (< 10 mm) tubular adenomas should have repeat colonoscopy in 5 to 10 years.
- Patients with small (< 10 mm) serrated polyps without dysplasia should have repeat colonoscopy in 5 years.
- Patients with 3 to 10 tubular adenomas, a tubular adenoma or serrated polyp ≥ 10 mm, an adenoma with villous features or high-grade dysplasia, a sessile serrated polyp with cytologic dysplasia, or a traditional serrated adenoma should have repeat colonoscopy in 3 years.
- More comprehensive discussions about CRC screening including perceived benefits, risk of death, disability, surgery from CRC; as well as offering screening option choices and promoting a problem-solving approach, have shown to be more successful strategies for increasing CRC screening rates.[31-33]
- A program that utilizes centralized, EHR-linked, mailed CRC screening invitations to patients has shown to improve screening rates, compared to screening rates from usual care or rates from patients viewing an informational brochure.[20,34,35]
- A Cochrane review suggests that personalized risk estimates incorporated within communication interventions for screening programs enhance informed choices.[36]
- Cancer survivors and their primary care providers should receive survivorship care plans, from the oncologists, to inform ongoing care[37] Use of the AMA PCPI Pathology Physician Performance Measurement Set may be a useful accountability measure.[38]
- The American College of Physicians (ACP), in a recent review of clinical practice guidelines, recommends the following:[39]
    - Guidance Statement 1: ACP recommends that clinicians perform individualized assessment of risk for colorectal cancer in all adults.
    - Guidance Statement 2: ACP recommends that clinicians screen for colorectal cancer in average-risk adults starting at the age of 50 years and in high-risk adults

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starting at the age of 40 years or 10 years younger than the age at which the youngest affected relative was diagnosed with colorectal cancer.
    - Guidance Statement 3: ACP recommends using a stool-based test, flexible sigmoidoscopy, or optical colonoscopy as a screening test in patients who are at average risk. ACP recommends using optical colonoscopy as a screening test in patients who are at high risk. Clinicians should select the test based on the benefits and harms of the screening test, availability of the screening test, and patient preferences.
    - Guidance Statement 4: ACP recommends that clinicians stop screening for colorectal cancer in adults over the age of 75 years or in adults with a life expectancy of less than 10 years.
- Key practice recommendations for surveillance after polypectomy and colorectal cancer resection:[40]
    - Surveillance colonoscopy and polypectomy should be performed in patients with a history of adenomas in order to reduce their risk of future colorectal cancer.
    - Patients with typical hyperplastic polyps at screening colonoscopy should be considered to have normal colonoscopies and should have their next follow-up colonoscopy in 10 years.
    - Patients with one or two small (less than 1 cm) tubular adenomas, including those with only low-grade dysplasia, should have their next follow-up colonoscopy in five to 10 years.
    - Patients with three to 10 adenomas, any adenoma 1 cm or larger, or any adenoma with villous features or high-grade dysplasia should have their next colonoscopy in three years, providing that piecemeal removal has not been done and the adenomas are completely removed.
    - Patients undergoing curative resection for colon or rectal cancer should undergo a colonoscopy one year after the resection (or one year after the colonoscopy to clear the colon of synchronous disease).
    - The joint USMSTF/ACS panel recommends against the routine use of fecal occult blood testing of post-polypectomy patients.

Family physicians should receive continuing education to help them develop patient-centered models of care to foster the adherence of CRC screening and management evidence-based recommendations and guidelines.[41,42]

The American Academy of Family Physicians Academy has participated in the Core Measures Collaborative (the Collaborative) convened by America's Health Insurance Plans (AHIP) since August 2014. The Collaborative is a multi-stakeholder effort working to define core measure sets of various specialties promoting alignment and harmonization of measure use and collection across both public and private payers.

Participants in the Collaborative included Centers for Medicare and Medicaid Services (CMS), the National Quality Forum (NQF), private payers, provider organizations, employers, and patient and consumer groups. This effort exists to decrease physician burden by reducing variability in measure selection, specifications and implementation– making quality

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measurement more useful and meaningful for consumers, employers, as well as public and private clinicians.

With significant AAFP input, a PCMH/ACO/Primary Care Core Measure Set has been developed for primary care. The goal of this set is to decrease burden and allow for more congruence between payer reporting programs.[43]

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- NCCN Colorectal Cancer Screening practice guidelines[44]
- Colorectal Cancer Screening and Surveillance[30]
- ACG clinical guideline: Genetic testing and management of hereditary gastrointestinal cancer syndromes[29]
- Colorectal cancer: a summary of the evidence for screening and prevention[15]
- Colonoscopy surveillance after polypectomy and colorectal cancer resection [40]
- Family Practice Management: FPM Toolbox[45]
- Health coaching for patients with chronic illness[46]
- Thinking on paper: documenting decision making[47]
- Simple tools to increase patient satisfaction with the referral process[48]
- Clinical decision support: using technology to identify patients' unmet needs[49]
- FamilyDoctor.org. Colorectal Cancer | Overview (patient resource)[50]

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