

## Early-Onset Colorectal Cancer (CRC) Executive Briefing

There is an alarming increase in Early Onset Colorectal Cancer (EOCRC) over the last decade. EOCRC is defined as a diagnosis between ages 20 - 49. This briefing has been developed to support our Primary Care Providers (PCPs) in decreasing the incidence and mortality of these young patients through education and prompt evaluation of symptoms.

### Current Early-Onset CRC trends:

- 55% increase in CRC in the 20 – 49 age group since 1995 in the United States.
- The predicted national incidence of colon and rectal cancers among:
  - 20 to 24 year olds will increase by 90% and 124%, respectively, by 2030
  - 35 to 49 year olds will increase by 28% and 46%, respectively, by 2030
- EOCRC patients are more likely to be diagnosed at stage III or IV
- Patients and PCPs of early-onset CRC are shown to contribute to the delay
  - Young patients may wait an average of six months before seeking care
  - Once evaluated, 15-50% of the time they may experience PCP related delays (i.e. missed symptoms, initial misdiagnosis).
- “Approximately 16% of cases occur in individuals with a hereditary condition, such as Lynch syndrome, and 14% have a family history of CRC. Additionally, a currently undefined portion of this group has a family history of advanced adenomas that would warrant earlier screening.
- Colonoscopy uptake has not been found to explain the increasing incidence rates.
- North Dakota and Iowa have been identified as having higher incidence of EOCRC in the US

### Call to action

- Prompt evaluation of symptoms by patients and providers
  - Digestive: Blood in stool/rectal bleeding, change in bowel habits, abdominal discomfort, bloating, nausea, vomiting
  - Other: Anemia, unexplained weight loss, fatigue, weakness
- Refer young, average-risk, symptomatic patients for endoscopic work-ups to expedite diagnosis
- Start conversations and education earlier about family history and underlying risk factors
  - Note: Family history to include CRC diagnosis **or** adenomatous polyps
- Perform risk-assessment using evidence based algorithm – See attached toolkit
- Some practices may choose to offer low-cost stool-based testing to all average risk individuals age 45 – 49, with the understanding that any positive result will require diagnostic colonoscopy.

### Research

- Drivers of early-onset CRC are not well understood
- Family history of colorectal cancer, advanced adenomatous polyps and hereditary syndromes are known contributors to early-onset CRC
- Current areas of study by epidemiologists:
  - Nitrates in drinking water, especially well water in ND
  - Fight CRC has identified the following prioritized risk factors to study:
    - Gene-environment interactions
    - Microbiome, Diet, and Antibiotic use (childhood and lifetime)



## Appendix A

### References

- 1.) Bailey, CE, et al. "Increasing disparities in the age-related incidences of colon and rectal cancers in the United States, 1975-2010." *JAMA Surgery*, vol. 150, no. 1, 2015, pp. 17-22, doi:10.1001/jamasurg.2014.1756.
- 2.) Never Too Young 2018 Young-Onset Colorectal Cancer Survey Report, 2018. Download: [go.ccalliance.org/2018youngonsetsurvey](http://go.ccalliance.org/2018youngonsetsurvey)
- 3.) Chen, Frank W., et al. "Advanced-Stage Colorectal Cancer in Persons Younger Than 50 Years Not Associated with Longer Duration of Symptoms or Time to Diagnosis." *Clinical Gastroenterology and Hepatology*, vol. 15, no. 5, 2017, pp. 728-737, doi: 10.1016/j.cgh.2016.10.038
- 4.) O'Connell JB, Maggard MA, Livingston EH, et al. Colorectal cancer in the young. *Am J Surg*, 2004; 187(3):343-348.
- 5.) Schwartz GG, Klug MG, & Rundquist BC. An exploration of colorectal cancer incidence rates in North Dakota, USA, via structural equation modeling. *International Journal of Colorectal Disease*, Published online: July 2019, doi:10.1007/s00384-019-03352-9.
- 6.) Siegel, R. (2019). *Update on early-onset colorectal cancer* [PowerPoint Slides]. Retrieved from [https://nccrt.org/wp-content/uploads/Siegel\\_EAO-CRC-update-Nov-2019.pdf](https://nccrt.org/wp-content/uploads/Siegel_EAO-CRC-update-Nov-2019.pdf)
- 7.) Fedewa, S.A., Siegel, R.L., & Jemal, A. (2019). Are temporal trends in colonoscopy among young Adults concordant with colorectal cancer incidence? *Journal of Medical Screening*, 26(4), 179-185. doi: 10.1177/0969141319859608
- 8.) Dwyer, A. (2019). *Convening to target early age onset(EAO) colorectal cancer: A year of the research and partnership efforts* [PowerPoint slides]. Retrieved from [https://nccrt.org/wp-content/uploads/DwyerNCCRT\\_AWE\\_RG.pdf](https://nccrt.org/wp-content/uploads/DwyerNCCRT_AWE_RG.pdf)
- 9.) National Colorectal Cancer Roundtable. (2018). Risk assessment and screening toolkit to detect familial, hereditary and early onset colorectal cancer. Retrieved from <https://nccrt.org/resource/risk-assessment-and-screening-toolkit-to-detect-familial-hereditary-and-early-onset-colorectal-cancer/>

### National Colorectal Cancer Roundtable Resources

Risk Assessment & Screening Toolkit to detect ECRC

<http://nccrt.org/wp-content/uploads/Introduction-to-the-Toolkit.pdf>

<https://nccrt.org/resource/risk-assessment-and-screening-toolkit-to-detect-familial-hereditary-and-early-onset-colorectal-cancer/>

Sample Risk Assessment Screening Algorithm

<https://nccrt.org/resource/sample-risk-assessment-screening-algorithm/>

