The following colorectal cancer treatment and research updates extend from November 18th, 2021, to January 13th, 2022, inclusive and are intended for informational purposes only.

This content is not intended to be a substitute for professional medical advice. Always consult your treating physician or guidance of a qualified health professional with any questions you may have regarding your health or a medical condition. Never disregard the advice of a medical professional or delay in seeking it because of something you have read on this website.

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1. Phase II LEAP Clinical Trial For mCRC (Sept.10/21)

The purpose of this study is to determine the safety and efficacy of combination therapy with pembrolizumab (MK-3475) and Levantine (E7080/MK-7902) in patients with triple-negative breast cancer (TNBC), ovarian cancer, gastric cancer, colorectal cancer (CRC), glioblastoma (GBM), or biliary tract cancers (BTC). Participants will be enrolled in initial tumor-specific cohorts, which will be expanded if adequate efficacy is determined. The trial is available at the Odette Cancer Centre and at the Princess Margaret Cancer Centre in Toronto as well as the following Centres throughout Canada: Abbotsford, BC; Winnipeg, MB; CHU de Quebec. For information, visit the link below.

https://clinicaltrials.gov/ct2/show/study/NCT03797326?term=A+Multicenter%2C+Open-label+Phase+2+Study+of+Lenvatinib+%28E7080%29+Plus+Pembrolizumab&show_locs=Y#locn

2. TRK Fusion Cancer and How to Test for It (Feb.16/21)
INTRODUCING
Tumour-Agnostic Therapies
Advances in precision medicine have brought therapies that specifically target what is driving a patient's cancer.

Treatment with more traditional cancer therapies is based on where the tumour is located in the body.

Tumour agnostic therapies target a specific genomic change in the cancer cells regardless of where the tumour is located in the body.

Genomic changes in cancer cells are identified through diagnostic testing of the cancer cells. The results help clinicians decide on a treatment for each patient.

Advantages of tumour agnostic therapies:
- Targets the genomic change that is the root cause of the cancer to suppress tumour growth
- Harnesses our growing understanding of cancer biology
- Offers an innovative, new and effective approach to treating cancer

Change required to adopt tumour agnostic therapies in Canada:
- A shift in mindset: this is a new concept that differs from the traditional approach of treating cancer based on tumour location
- Access to genomic testing: identifying patients who would benefit from treatments requires a robust testing infrastructure
- An evolved, more adaptive assessment of treatments for public coverage is required that includes recognition of smaller patient populations, new clinical trial methods, and ability to examine new data over time

https://www.bayer.ca/en/media/news/?dt=TmpBPQ==&st=1
3. A Phase II, Open-label, Multicenter, Study of an Immunotherapeutic Treatment for the MSI High CRC Metastatic Population (Sept.16/21)

The purpose of this study is to look at the effectiveness of the vaccine DPX-Survivac in combination with the drugs cyclophosphamide and the immunotherapy Pembrolizumab in patients with solid cancers who are identified to be MSI-High. All patients will receive combination therapy of DPX-Survivac, cyclophosphamide, and pembrolizumab. Patients participating will know which treatment they are receiving. The trial is currently hosted at the Odette Cancer Centre, and a new site is opening at Mt. Sinai Hospital.

4. Phase III Study at the Odette Cancer Centre Comparing Arfolitixorin vs. Leucovorin in Combination with 5FU, Oxaliplatin and Bevacizumab in Patients with Advanced CRC (Sept.16/21)

The purpose of this study is to look at the effectiveness of the drug Arfolitixorin in combination with 5-fluorouracil (5FU), oxaliplatin, and bevacizumab in patients with colorectal cancer (CRC). Patients with advanced/metastatic CRC who meet certain criteria may be able to participate. There will be two groups of patients participating in this study; one group will receive Arfolitixorin in combination with 5FU, oxaliplatin, and bevacizumab, while the other group will receive the drug Leucovorin in combination with 5FU, oxaliplatin, and bevacizumab (standard of care).

The doctor and study staff will not know which group a patient is in. Patients will be randomized to receive one treatment or the other.

**About Arfolitixorin:**

Arfolitixorin is Isofol’s proprietary drug candidate being developed to increase the efficacy of standard care chemotherapy for advanced CRC. The drug candidate is currently being studied in a global Phase 3 clinical trial. As the key active metabolite of the widely used folate-based drugs, arfolitixorin can potentially benefit all patients with advanced CRC, as it does not require complicated metabolic activation to become effective. Treating cancer patients with arfolitixorin – The goals:

- When treating CRC, for example, arfolitixorin is administered in combination with 5-FU to increase cell mortality in circulating cancer cells and in cancerous tumours.
- Arfolitixorin is administered in conjunction with rescue therapy after high-dose treatment with the cytotoxic agent, methotrexate, in order to suppress the cytotoxic effect in surrounding healthy tissue. The treatment is used for certain types of cancer, such as osteosarcoma, a type of bone cancer. This involves administering arfolitixorin separately, 24 hours after the chemotherapy.

5. FDA Grants Fast Track Designation to Arfolitixorin for mCRC (Nov.29/21)

The FDA granted fast track designation to arfolitixorin for treatment of patients with metastatic colorectal cancer (mCRC). The randomized phase 3 AGENT study is underway to assess the agent, designed to increase the efficacy of standard chemotherapy. Researchers will assign 440 patients to 5-FU, oxaliplatin and bevacizumab (Avastin, Genentech) plus either arfolitixorin or leucovorin as first-line treatment for mCRC. The primary endpoint is overall response rate. Secondary endpoints include PFS, duration of response, OS, number of curative metastasis resections, safety and patient-reported outcomes. Topline data are expected to be available in the first half of 2022.

6. ERAS-007 will be Evaluated Initially in Combinations That Could Address Over Half of Patients with CRC (Sept.22/21)

Erasca, a clinical-stage precision oncology company today announced dosing of the first patient in HERKULES-3, a Phase 1b/2 master protocol clinical trial evaluating ERAS-007 in combination with various agents in patients with gastrointestinal (GI) cancer, with initial focus on patients with advanced colorectal cancer (CRC).

“Initially focused on CRC subtypes with BRAF V600E, KRAS, or NRAS mutations, HERKULES-3 has the potential to address over half of patients with CRC and could be further expanded into other GI cancers with additional combinations” said Jonathan E. Lim, M.D., Erasca’s chairman, CEO, and co-founder. Dr. Lim continued, “Preclinical work by Ryan Corcoran, M.D., Ph.D., at Massachusetts General Hospital Cancer Center indicates that adding an ERK inhibitor has the potential to deepen and prolong responses, as well as delay resistance, forming the scientific basis for exploring ERAS-007 in combination with encorafenib and cetuximab in patients with BRAF V600E-mutant mCRC.”
HERKULES-3 will examine the safety, tolerability, and preliminary efficacy of ERAS-007 in combination with other cancer therapies in study participants with GI malignancies. The dose escalation portions of the first two sub-studies will assess ERAS-007 in combination with the current standard of care, encorafenib (Braftovi®) and cetuximab (Erbitux®), in patients with BRAF V600E-mutant mCRC, and ERAS-007 in combination with the CDK4/6 inhibitor palbociclib (Ibrance®) in patients with KRAS- or NRAS-mutant mCRC.


7. Sotorasib Shows Activity in Advanced CRC with KRAS G12C Mutation (Dec.17/21)

The ongoing, single-arm CodeBreak 100 trial included 62 patients with KRAS G12C-mutated colorectal cancer across 33 centers in nine countries who received at least one dose of 960 mg oral sotorasib once daily. All patients had progressed on treatment with fluoropyrimidine, oxaliplatin and irinotecan, and 73% had progressed on at least three prior lines of anticancer therapy.

Results showed an ORR of 9.7%, which fell short of the protocol-specified benchmark. 82% of patients achieved disease control. Researchers reported median PFS of 4 months and median OS of 10.6 months. “The response rate, disease control rate, median PFS and OS in this population of patients with refractory metastatic colorectal cancer is encouraging and clinically significant,” Marwan G. Fakih, MD, co-director of the gastrointestinal cancer program at City of Hope, told Healio.

“This study confirmed the favorable safety profile of sotorasib, with only a few patients experiencing grade 3 or above treatment-related adverse events,” Fakih said. “While sotorasib monotherapy held significant promise based on this study’s results, recent clinical data suggest potential synergy between sotorasib and the anti-EGFR inhibitor panitumumab [Vectibix, Amgen]. A phase 3 clinical trial is currently underway to compare sotorasib plus panitumumab to physicians’ choice of trifluridine [and tipiracil] or regorafenib in patients with the KRAS G12C mutation who progressed on prior fluoropyrimidine, oxaliplatin and irinotecan.”


8. New Treatment Could Be a Better Option for Patients with Colon Cancer (Dec.17/21)

Most patients with colorectal liver metastases (CLM) are poor candidates for resection surgery, so this new treatment could be a better option compared to chemotherapy alone, according to Mary Mulcahy, MD, ’00 GME, professor of Medicine in the Division of Hematology and Oncology and lead author of the study. The standard therapy for colon cancer that has spread outside the colon is chemotherapy. Treatment with chemotherapy is limited by side effects and eventual resistance, according to Mulcahy. "We know systemic chemotherapy will ultimately fail, so we’re looking for non-surgical therapy that can address these patients," said Mulcahy.

In the current study, investigators combined chemotherapy with transarterial radioembolization (TARE), in which patients are infused with small beads (microspheres) containing a radioactive isotope (Y-90). The microspheres are directed to the hepatic artery and from there travel to the liver, where they embed themselves in the small blood vessels of the tumor and irradiate the cancer. Patients receiving chemotherapy and TARE had longer progression-free survival. Importantly, the addition of TARE did not impact their ability to receive subsequent therapy — something investigators were concerned about. The addition of TARE to chemotherapy did not improve the overall survival. Some subsets of patients had greater benefit from TARE than others. Characteristics which may identify patients who would benefit from the addition of TARE are the location of the original colon tumor, the genetic make-up of the tumor and the amount of tumor in the liver.


“Colorectal cancer (CRC) patients who have tried all of the standard treatment options but have still seen their cancer progress are in need of new options. Our study, published in the journal Cell Reports, suggests that one already available targeted therapy could benefit up to 12,000 additional colon cancer patients every year,” said Edward Stites, assistant professor, integrative biology laboratory at the Salk Institute for Biological Sciences. “Our findings are preclinical, and we hope this research will motivate clinicians to develop clinical trials that further examine our results.”

Cetuximab was the first drug to gain FDA approval to block EGFR activity in CRC. Since then, other drugs that target EGFR also have received approval. From the early development of these drugs, doctors believed that patients with a mutation in any one of the RAS proteins would not respond to EGFR drugs. However, not all RAS mutations are the same. The researchers combined computational and experimental approaches to find more RAS mutations that should not cause resistance to the EGFR drugs. Ultimately, the investigators identified 10 distinct RAS mutations that do not preclude the use of EGFR inhibitors. Many of the drugs that would work for these mutations are already approved by the FDA for other uses, which means that doctors could start prescribing them for their patients “off label” even before clinical trials are conducted.


10. Trifluridine/Tipiracil Combination Misses Mark in Metastatic Colon Cancer (Dec.21/21)

Pairing a novel cytotoxic agent with bevacizumab (Avastin) failed to improve progression-free survival (PFS) versus standard therapy in older patients with metastatic colorectal cancer (mCRC) ineligible for intensive therapy, a randomized trial showed.

“Trifluridine/tipiracil plus bevacizumab did not show statistically significant superiority in terms of PFS assessed by investigator, but there was a trend in favor of trifluridine/tipiracil and bevacizumab with a hazard ratio of 0.87,” said Thierry André, MD, of Sorbonne University and Saint-Antoine Hospital in Paris. “PFS in both arms in the selected population, with a median age of 73, was clinically meaningful, 9.4 versus 9.3 months...Quality-of-life data will be available soon, and data on OS [overall survival] is expected in 2023.” PFS by blinded central review gave trifluridine/tipiracil a small advantage, but the difference did not meet prespecified requirements for statistical significance. Statistical assumptions for the phase III SOLSTICE study included an estimated median PFS of 7.5 months for the control arm.

https://www.medpagetoday.com/hematologyoncology/coloncancer/96332

SURGICAL THERAPIES

11. Hepatic Artery Infusion Pump (HAIP) Chemotherapy Program – Sunnybrook Odette Cancer Centre (Oct.15/21)

The HAIP program is a first-in-Canada for individuals where colon or rectal cancer (colorectal cancer) has spread to the liver and cannot be removed with surgery. The program involves a coordinated, multidisciplinary team approach to care, with close collaboration across surgical oncology, medical oncology (chemotherapy), interventional radiology, nuclear medicine, and oncology nursing. The Hepatic Artery Infusion Pump (HAIP) is a small, disc-shaped device that is surgically implanted just below the skin of the patient and is connected via a catheter to the hepatic (main) artery of the liver. About 95 percent of the chemotherapy that is directed through this pump stays in the liver, sparing the rest of the body from side effects. Patients receive HAIP-directed chemotherapy in addition to regular intravenous (IV) chemotherapy (systemic chemotherapy), to reduce the number and size of tumours. Drs. Paul Karanicolas and Michael Raphael are the program leads and happy to see patients who may be eligible for the therapy.
Presently at Sunnybrook Odette Cancer Centre, HAIP is being used in patients with colorectal cancer that has spread to the liver that cannot be removed surgically and has not spread to anywhere else in the body. Patients who have few (1-5) and very small tumors in the lungs may be considered if the lung disease is deemed treatable prior to HAIP. If you believe you may benefit from this therapy and/or would like to learn more about the clinical trial, your medical oncologist or surgeon may fax a referral to 416-480-6179. For more information on the HAIP clinical trial, please click on the link provided below.

http://sunnybrook.ca/content/?page=colorectal-colon-bowel-haip-chemotherapy

12. Living Donor Liver Transplantation for Unresectable CRC Liver Metastases (Oct.1/21)

Approximately half of all colorectal cancer (CRC) patients develop metastases, commonly to the liver and lung. Surgical removal of liver metastases (LM) is the only treatment option, though only 20-40% of patients are candidates for surgical therapy. Surgical therapy adds a significant survival benefit, with 5-year survival after liver resection for LM of 40-50%, compared to 10-20% 5-year survival for chemotherapy alone. Liver transplantation (LT) would remove all evident disease in cases where the colorectal metastases are isolated to the liver but considered unresectable.

While CRC LM is considered a contraindication for LT at most cancer centers, a single center in Oslo, Norway demonstrated a 5-year survival of 56%. A clinical trial sponsored by the University Health Network in Toronto will offer live donor liver transplantation (LDLT) to select patients with unresectable metastases limited to the liver and are non-progressing on standard chemotherapy. Patients will be screened for liver transplant suitability and must also have a healthy living donor come forward for evaluation. Patients who undergo LDLT will be followed for survival, disease-free survival, and quality of life for 5 years and compared to a control group who discontinue the study before transplantation due to reasons other than cancer progression.

https://clinicaltrials.gov/ct2/show/NCT02864485

13. In Vivo Lung Perfusion Study for Metastatic Colorectal Cancer Lung Mets (Dec.07/21)

The link below contains a short video demonstrating In Vivo Lung Perfusion, which is used to isolate one lung and deliver a high dose of chemotherapy without systemic exposure. The patient was a 20-year-old woman, diagnosed with multiple metastatic lesions from sarcoma in both lungs. In Vivo Lung Perfusion is now being offered to mcrc patients at the University Health Network in Toronto. Dr. Marcelo Cypel is the lead investigator. If you have any questions, please contact CCRAN. https://pie.med.utoronto.ca/TVASurg/project/in-vivo-lung-perfusion/

RADIATION THERAPIES/INTERVENTIONAL RADIOLOGY

14. Study Offered at the Odette Cancer Centre to Treat Recurrent Rectal Cancer (Oct.9/21)

Magnetic resonance-guided focused ultrasound (MRg-FU) is a less invasive; outpatient modality being investigated for the thermal treatment of cancer. In MRg-FU, a specially designed transducer is used to focus a beam of low-intensity ultrasound energy into a small volume at a specific target site in the body. MR is used to identify and delineate the tumour, focus the ultrasound beam on the target, and provide a real-time thermal mapping to ensure accurate heating of the designated target with minimal effect to the adjacent healthy tissue. The focused ultrasound beam produces therapeutic hyperthermia (40-42°C) in the target field, causing protein denaturation and cell damage. Currently, there is no prospective clinical data reported on the use of MRg-FU in the setting of recurrent rectal cancer. Recurrent rectal cancer is a vexing clinical problem. Current retreatment protocols have limited efficacy. The addition of hyperthermia to radiation and chemotherapy may enhance the therapeutic response. With recent advances in technology, the investigators hypothesize that MRg-FU is technically feasible and can be safely used in combination with concurrent re-irradiation and chemotherapy for the treatment of recurrent rectal cancer without increased side-effects. The study is being offered at the Odette Cancer Centre. Here is the link to the study protocol:

https://clinicaltrials.gov/ct2/show/NCT02528175?term=magnetic+resonance+guided+focused+ultrasound&recr=Open&rank=1
15. Radiotherapy Maximizes Chemotherapy’s Effect in mCRC (Dec.19/21)

According to these results, the most effective treatment for metastatic colorectal cancer (mCRC) is targeted therapy and chemotherapy, which block only a specific gene with a mutation. However, some patients show a mixed response, developing tolerance in only a few lesions during treatment. To provide a solution, the team, led by Professor Jang Ji-seok of the Radiation Oncology Department, conducted a study that showed that precision radiation therapy increases the effectiveness of chemotherapy in patients with small advanced CRC.

The analysis confirmed that the minor progressive patient group who received precision radiation therapy maintained the existing drug treatment for an average of 9.5 months when the hospital suspected that tolerance had developed. 34% of the patient group maintained the existing drug for more than one year. The team stressed that considering that the average duration of chemotherapy for all mCRC patients is an average of five months, the precision radiation therapy extended the period significantly. The survival rate of the minor progressive patient group who received precision radiotherapy was also high.


SCREENING

16. Trends in the Incidence of Young-Onset CRC with a Focus on Years Approaching Screening Age (Apr.10/21)

With recent evidence for the increasing risk of young-onset colorectal cancer (yCRC), the objective of this population-based longitudinal study was to evaluate the incidence of yCRC in one-year age increments, particularly focusing on the screening age of 50 years. The study was conducted using linked administrative health databases in British Columbia, Canada including a provincial cancer registry, inpatient/outpatient visits, and vital statistics from January 1, 1986 to December 31, 2016. Researchers calculated the incidence rates per 100,000 at every age from 20 to 60 years and estimated annual percent change in incidence (APCI) of yCRC using joinpoint regression analysis.

3,614 individuals were identified with yCRC (49.9% women). The incidence of CRC steadily rose from 20 to 60 years, with a marked increase from 49 to 50 years. Furthermore, there was a trend of increased incidence of yCRC among women. Analyses stratified by age yielded APCI’s of 2.49% and 0.12% for women aged 30-39 years and 40-49 years, respectively and 2.97% and 1.86% for men. These findings indicate a steady increase over one-year age increments in the risk of yCRC during the years approaching and beyond screening age. These findings highlight the need to raise awareness as well as continue discussions regarding considerations of lowering the screening age.

https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djaa220/6119347?guestAccessKey=af490637-e51e-44d0-81b9-d1f2df7bd60c9

17. New Blood Test for CRC Found Effective - ctDNA (Nov.23/21)

A circulating tumor DNA (ctDNA) blood-based screening test (Lunar-2, Guardant) was 96% sensitive and 94% specific in detecting early-stage colorectal cancer (CRC) in nearly 700 patients, according to data presented at the 2021 annual meeting of the American College of Gastroenterology. ctDNA is the tiny amount of DNA from cancer cells that moves freely in the bloodstream and can be used as a biomarker for cancer diagnosis. Tests for ctDNA are often very sensitive to the smallest amount of tumor DNA and can catch cancer much earlier than physical screening tests such as a colonoscopy.

The test had an overall sensitivity of 96%, with the assay being 100% sensitive in several clinical scenarios, including cancers with lymphatic invasion, high-grade tumors, tumors with low MSI status and mucinous adenocarcinomas. Its lowest sensitivity was 88%, for detecting stage 1 tumors. The test had a sensitivity of 93% for detecting stage 1 or 2 low-grade cancers: 90% in asymptomatic patients and 95% in those with stage 1 or 2 symptomatic disease. In a control group of age-matched patients without cancer, the test was 94% specific in ruling out CRC.

Currently, a larger trial with more than 10,000 patients is underway (ECLIPSE study) to further test whether LUNAR-2 is able to diagnose early-stage CRC. Enrolment is expected to be completed later this year. It is important to have a less invasive and simpler test for CRC screening because of the challenges in adherence to timely screening.
18. Primary Care Clinicians Adjust Recommendations for CRC Screening to Accommodate Patient Needs and Preferences (Dec.13/21)

Research has shown that the recommendations of American primary care clinicians and gastroenterologists strongly influence whether patients are screened and what type of screening they choose. According to the research survey, colonoscopy was the most frequently preferred option for average-risk patients, favored by 96.9% of gastroenterologists and 75.7% of primary care clinicians. “Interestingly, we found that nearly 1 in 4 primary care clinicians in our study selected a stool-based test as their preferred screening option, with mutlitarget stool DNA selected more frequently than either fecal immunochemical test or guaiac-based fecal occult blood test,” says Lila Rutten, Ph.D., a health services researcher at Mayo Clinic and the study’s lead author. This preference came about particularly for patients who were unwilling to undergo invasive procedures; concerned about taking time from work; unconvinced about the need for screening; or refused other screening recommendations. “These findings suggest that primary care clinicians recognize the need to tailor their colorectal cancer screening recommendations to the preferences of their patients, especially with the emergence of new, less invasive options,” says Paul Limburg, M.D., a gastroenterologist at Mayo Clinic and the study’s senior author.


19. CRC ‘No Longer’ Disease of Old Age, Data Supports Lowered Screening Age (Jan.07/22)

“We have known for many years that rates of colorectal cancer (CRC) are rising in individuals younger than 50, prompting several medical organizations to recommend lowering the screening age from 50 to 45. What has been missing until now is confirmatory data of this finding given the small number of these very young patients, this is concerning.” says Steven H. Itzkowitz, MD, FACP, FACG, AGAF, of the Icahn School of Medicine at Mount Sinai, in a press release.

According to results from a nationally representative retrospective study, predictors of advanced colorectal neoplasia included increasing age, male sex (67% higher compared with female sex), white race, a family history of CRC or polyps (21% and 33% higher odds, respectively) and an indication for bleeding or screening (15% and 20% higher odds). Following adjustment, each one-year increase in age correlated with an 8% increase in advanced colorectal neoplasia discovery. Further analysis of prevalence among patients aged 40 to 44 years, 45 to 49 years and 50 to 54 years revealed 26.59%, 32% and 37.72% had any neoplasia; 5.76%, 7.5% and 9.48% had advanced premalignant lesions; and 0.53%, 0.58% and 0.32% had CRC. Researchers noted a gradual increase in prevalence between 2014 and 2020 among all age groups. “The data confirm what we have been seeing in the clinic — 45 is now the new 50. Colorectal cancer used to be considered a disease of old age and that is no longer true,” Itzkowitz said.


20. Younger, Older Patients with mCRC Have Similar Survival Outcomes (Jan.05/22)

The analysis — the first to compare overall survival (OS) among younger vs. older participants in a clinical trial of treatment for metastatic colorectal cancer (mCRC), according to Dana-Farber researchers — included 2,326 eligible patients (median age, 59.1 years; 22.1% aged younger than 50 years at study entry, 58.3% male; 81.5% white). Researchers found no statistically significant difference between patients with young-onset vs. older-onset disease in median OS (27.07 vs. 26.12 months) or median progression-free survival (PFS) (10.87 vs. 10.55 months). Patients aged younger than 35 years had the shortest median OS (21.95 months).

“It is not clear why the youngest patients may have a worse prognosis,” said Marla Lipsyc-Sharf, MD, clinical fellow in oncology at Dana-Farber Cancer Institute/Mass General Brigham. “Though additional research will be needed to confirm this finding given the small number of these very young patients, this is concerning.” Lipsyc-Sharf told Healio this finding, as well as factors contributing to increased incidence of colorectal cancer among younger patients, remains an active area of investigation.

Image Source: https://www.istockphoto.com/illustrations/colon-cancer-screening
21. Young Adult CRC Clinic Available at Sunnybrook (Oct.12/21)

A recent study led by the University of Toronto doctors has observed a rise in colorectal cancer (CRC) rates in patients under the age of 50. The study mirrors findings from the U.S., Australia and Europe. The growing CRC rates in young people come after decades of declining rates in people over 50, which have occurred most likely due to increased use of CRC screening (through population-based screening programs) which can identify and remove precancerous polyps. Patients diagnosed under the age of 50 have a unique set of needs, challenges and worries. They are unlike those diagnosed over the age of 50. Dr. Shady Ashamalla (colorectal cancer surgical oncologist), and his team at the Sunnybrook Health Sciences Centre understand the needs of this patient population.

Dr. Ashamalla belongs to a multidisciplinary team of experts in the Young Adult Colorectal Cancer Clinic who will work with young CRC patients, regardless of disease stage, to create an individualized treatment plan to support each patient through their cancer journey. Their needs and concerns will be addressed as they relate to:

- Fertility concerns and issues
- Young children at home
- Dating/intimacy issues
- Challenges at work
- Concerns about hereditary cancer
- Relationships with family and friends
- Psychological stress due to any or all of the above

The team of experts consists of:

- Oncologists (medical, surgical, radiation)
- Social workers
- Psychologists
- Geneticists
- Nurse navigator

Should a patient wish to be referred to Sunnybrook, they may have their primary care physician, or their specialist refer them to Sunnybrook via the e-referral form, which can be accessed through the link appearing below. Once the referral is received, the Young Adult Colorectal Cancer Clinic will be notified if the patient is under the age of 50. An appointment will then be issued wherein the patient will meet with various members of the team to address their specific set of concerns.

http://sunnybrook.ca/content/?page=young-adult-colorectal-cancer-clinic

22. CCRAN’s Partnership with “Count Me In” (Nov.01/21)

CCRAN is proud to partner with Count Me In, a nonprofit research initiative, on The Colorectal Cancer Project. This new project is open to anyone in the United States or Canada who has ever been diagnosed with colorectal cancer (CRC). Patients can find out more and join at JoinCountMeln.org/Colorectal.

Through the project, patients are asked to complete surveys to share information about their experience with CRC, to share biological sample(s), and to allow for the research team to request copies of their medical records. The project team then de-identifies and shares data from these with the entire research community.

Every patient’s story holds a piece of the puzzle that can help us better understand CRC. By discovering more about what drives cancer and sharing this data, CCRAN and the Colorectal Cancer Project believe insights can be gained to develop more effective therapies. One of the aims of the project is to reach populations that have been understudied, including individuals who are diagnosed with CRC at a young age, individuals from marginalized communities who have historically been excluded from research, and patients with metastatic CRC. Together, we can accelerate our understanding of CRC. To learn more or sign up to participate, visit JoinCountMeln.org/Colorectal.
“Count Me In”, a nonprofit cancer research initiative, is inviting all patients across the United States and Canada who have ever been diagnosed with colorectal cancer (CRC) to participate in research and help drive new discoveries related to this disease. The Colorectal Cancer Project will enable patients to easily share their samples, health information and personal lived experiences directly with researchers in order to accelerate the pace of research.

Patients who have been diagnosed with CRC at any point in their lives can join the project by visiting JoinCountMeIn.org/colorectal. From there, patients will be invited to share information about their experience through surveys and to provide access to medical records as well as saliva samples and optional blood, stool, and/or stored tissue samples for study and analysis. Researchers from the Broad Institute of MIT and Harvard and Dana-Farber Cancer Institute use this information to generate databases of clinical, genomic, molecular, and patient-reported data that is then de-identified and shared with researchers everywhere. To date, more than 9,000 patients with different cancers have joined Count Me In and shared their data. "We still do not know why there is an alarming rise in CRC in young adults”, said Andrea Cercek, MD Co-Director, Center for Young Onset Colorectal and Gastrointestinal Cancers Memorial Sloan Kettering Cancer Center and co-scientific leader of the Colorectal Cancer Project. "What we do know is that this is a global phenomenon that affects otherwise healthy individuals with no known risk factors. The Colorectal Cancer Project will provide researchers important information that will lead to a better understanding of this disease."

Over 180 people from across the US & CA have said “Count Me In” to join the Colorectal Cancer Project. By sharing information via surveys and access to medical records & samples, patients can have an impact on the future of colorectal cancer. Learn more at JoinCountMeIn.org/Colorectal

cancer

23. Over Half a Million Fewer Surgeries Have Been Performed in Canada Since The Start of The Pandemic (Dec.09/21)

Canadian hospitals have performed 560,000 fewer surgeries since the start of the pandemic, compared with previous years. According to new data released by the Canadian Institute for Health Information (CIHI), the largest decline
occurred during Wave 1 while the system was adjusting to accommodate the anticipated large volume of COVID-19 patients. On average, surgeries decreased by about 35,000 per month. The biggest decreases were seen in cataract surgeries (an average of 5,900 fewer surgeries performed per month) and hip and knee joint replacements (an average of 2,100 fewer per month).

Between March 2020 and June 2021, visits to emergency departments (EDs) were down on average by over 20% compared with before the pandemic. Decreases were seen across all levels of triage. However, the biggest drop in the number of visits was for those with the least-urgent conditions. In terms of demographics, the largest decrease in ED visits (50%) occurred among children age 0 to 4.

https://www.cbc.ca/radio/whitecoat/palliative-care-burnout-covid-wcbe-1.6278131


This week, a Leger survey for the Conference Board of Canada suggested 97% of 200 doctors and nurses who provide direct patient care in hospitals reported fatigue and burnout have increased in their workplace. Most cited inadequate staffing levels resulting in stress from not being able to offer optimal care. Those offering comfort care tell CBC they're seeing more patients who are terminally ill at their first appointment than they did before the pandemic. Cancer specialists are in a prime position to observe the effects on patients, their families and each other. Burnout can be serious and may include emotional, physical and mental exhaustion and feeling hopeless and resentful, along with headaches and backaches.

Dr. Gerald Batist, a medical oncologist and director of the Segal Centre at Montreal's Jewish General Hospital, sees the “tsunami” of advanced cancers that are less curable than if they'd been diagnosed at an earlier stage. He said it's happening because:

- Patients with symptoms feared coming to hospitals, which are taking precautions to reduce the risk of contact with COVID-19.
- People missed preventative screenings like mammograms and colonoscopies.
- There were cuts to operating room time during lockdowns, slower diagnostic tests and biopsies, and reduced intensive care unit staffing for surgical patients.

"It's very hard to see people in increased numbers facing the end of their lives ... sooner than they and we would have hoped."

https://www.cbc.ca/radio/whitecoat/palliative-care-burnout-covid-wcbe-1.6278131

25. Major Financial Hardship Prevalent in mCRC (Jan.05/22)

Veena Shankaran, M.D., from the Fred Hutchinson Cancer Research Center in Seattle, and colleagues examined financial hardship in 380 metastatic colorectal cancer (mCRC) patients aged 18 years or older (78 percent White, 98 percent insured, 57 percent with annual income ≤$50,000) within 120 days of mCRC diagnosis. The researchers found that at 12 months, the cumulative incidence of major financial hardship (MFH) was 71.3%. There were no significant associations observed for age, race, marital status, or income (split at $50,000 per year) with MFH. Greater MFH was seen in association with income <$100,000 and total assets <$100,000. There was an association between MFH at three months and reduced social functioning and quality of life at six months. "Nearly all patients in this study had health insurance coverage and still the vast majority reported major financial hardship, which suggests having health insurance may no longer be sufficient to protect patients and families from financial hardship and its adverse health sequelae,” write the authors of an accompanying editorial.


26. New Discovery Enhances Understanding of CRC (Jan.03/22)

MUSC Hollings Cancer Center researchers discovered a novel mechanism showing how a certain gene mutation can allow tumors to evade detection by the immune system in colorectal cancer (CRC) patients. “The work is the first time we are aware of that someone has shown how a checkpoint inhibitor is regulated due to loss of the adenomatous polyposis coli (APC) gene function,” said Raymond N. DuBois, M.D., Ph.D., director of Hollings Cancer Center and a senior author of the study.
DuBois’ team found that in mouse models, APC gene mutations are always accompanied by very high levels of PD-L1. PD-L1 levels are elevated in a variety of human cancers, including colorectal cancer, and this sometimes leads to a poor prognosis. High levels of PD-L1 on the surface of cancer cells are related to the tumor’s ability to evade the immune system. However, the exact role PD-L1 plays in colorectal cancer is unclear. With that knowledge, they developed several mouse models where they removed the gene and examined the effect on the colon. “When we corrected the mutation in the mouse model, the checkpoint inhibitor went away, and when we reintroduced the mutation, it returned,” DuBois explained.

“This discovery represents the first evidence that we know of demonstrating that the loss of APC results in stimulation of PD-L1 in colon cancer cells via the b-catenin complex binding to the PD-L1 promoter,” DuBois said. Their findings also revealed a novel mechanism by which APC mutations allow colonic tumors to evade immune system detection via an immune checkpoint pathway and increased resistance to T-cells. “These results expand our understanding of the role of APC in colorectal cancer and pave the way for developing new target drugs as possible b-catenin inhibitors for use as alternative immune checkpoint inhibitors in colorectal cancer therapies,” DuBois said.


NUTRITION/HEALTHY LIFESTYLE

27. Foods to Fight CRC (Jan.03/22)

You are what you eat, especially when it comes to colorectal cancer (CRC). While sugary beverages and red meat can increase your risk for CRC, there are some foods and spices that can help prevent it. One of them is turmeric, which contains the anti-inflammatory compound curcumin. Curcumin has been found to suppress cancer cell growth. Also, new research from Texas A&M University reports that eating spinach can reduce colon cancer risk by 50%. Other foods that can prevent colon cancer include fruits such as apples, bananas, blueberries, and raspberries; also nuts such as almonds, cashews, and macadamia nuts; whole grains; beans, legumes and fish. A study from Vanderbilt University found women who eat three servings of fish per week reduced their risk of developing colon polyps and CRC by 33%.

“In some instances, they function even better than some of the anti-cancer drugs we are using right now,” says Ajay Goel, director for the Center for Gastrointestinal Research Cancer Prevention at Baylor Scott & White Health. “They’re much safer, they’re much more inexpensive and they’re a lot more potent than some of the drugs we use for treating cancer patients.”

https://www.wndu.com/2022/01/04/medical-moment-foods-fight-colorectal-cancer/

COVID-19 UPDATES

28. Here’s Who May Need a Fourth COVID-19 Vaccine Dose (Oct.28/21)

In updated guidelines released this week, the Centers for Disease Control and Prevention (CDC) said moderately and severely immunocompromised people aged ≥18 years who completed an mRNA COVID-19 vaccine primary series and received an additional mRNA vaccine dose may receive a single COVID-19 booster dose (Pfizer-BioNTech, Moderna, or Janssen) at least 6 months after completing their third mRNA vaccine dose.

The CDC has found reduced vaccine effectiveness in people who are immunocompromised compared with people who are not immunocompromised. An ‘additional’ dose to refers to a subsequent vaccine dose in people who likely
did not mount a protective immune response after their primary vaccination, the CDC’s Dr. Sujan Reddy said in a recent webinar with healthcare professionals.

One reason for these new guidelines is that vaccine efficacy has been shown to drop over time, placing certain groups at increased risk. “Over time, generally 6 to 9 months, the vaccine effectiveness appears to diminish,” Dr. David Hirschwerk, an attending infectious diseases specialist at Northwell Health in Manhasset, New York, told Healthline. “They do remain protective against developing severe infection, but less effective at preventing any infection at all.”


29. Frequently Asked Questions for COVID-19

Q: What is COVID-19 (or novel Coronavirus Disease - 19)?
A: Coronaviruses are a large family of viruses that can cause illnesses in humans and animals. Coronaviruses can cause illnesses that range in severity from the common cold to more severe diseases such as Severe Acute Respiratory Syndrome (SARS) and most recently, COVID-19. COVID-19 or novel coronavirus originated from an outbreak in Wuhan, China in December 2019. The most common symptoms associated with COVID-19 can include fever, fatigue, and a dry cough. Though additional symptoms have now been linked with the disease, which may include aches and pains, nasal congestion, runny nose, sore throat, diarrhea, skin rash and vomiting. These droplets land on surfaces around a nearby person. COVID-19 can be transmitted to that nearby person who may end up touching the surface contaminated with COVID-19 and then end up touching their nose, mouth, or eyes. A person can also contract COVID-19 through inhaling these droplets from someone with COVID-19. Although research is still ongoing, it is important to note that older populations (over the age of 65), those with a compromised immune system and those with pre-existing conditions including heart disease, high blood pressure, lung disease, diabetes or cancer may be at a higher risk of severe illness due to COVID-19.

https://www.who.int/news-room/q-a-detail/q-acoronaviruses

Q: What can I do to avoid getting Coronavirus?
A: There are various ways in which we can reduce our risk of contracting COVID-19. Below are some measures suggested by the World Health Organization

1. Keep at least 2 metres (or 6 feet) between yourself and other people. This will reduce the risk of inhaling droplets from those infected with COVID-19.
2. Regularly clean your hands for at least 20 seconds with warm water and soap, or an alcohol-based hand rub. This will kill any viruses on your hands.
3. Avoid touching your eyes, nose and mouth. If the virus is on your hands, it can enter the body through these areas.
4. Follow good respiratory hygiene by covering your mouth and nose with a tissue or elbow when you cough and sneeze. This prevents the droplets from settling on surfaces or being released into the air around you.
5. Stay home as much as possible, especially if you are feeling unwell. If you think you may have the Coronavirus, please see “What should I do if I think I have Coronavirus?” section.
6. Please wear a face covering or mask in public when physical distancing is not possible.

https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

Q: Are there special precautions that people with cancer can take?
A: People with cancer (and other chronic ailments such as heart disease, diabetes, high blood pressure and lung disease) are at a higher risk of severe illness due to COVID-19 as cancer is considered a pre-existing health issue. Some cancer treatments including chemotherapy, radiation and surgery can weaken the immune system, making it harder for the body to fight infections and viruses, such as Coronavirus. It is important to diligently follow the World Health Organization’s recommendations above to reduce the risk of contracting COVID-19. If you have any concerns about your risk, it is best to contact your doctor or healthcare team.

Will anything change with regards to my cancer related medical visits? As each patient and treatment plan is unique, it is always best to contact your health care provider for updated information about your treatment plan. In some cases, it is safe to delay cancer treatment until after the pandemic risk has decreased. In other cases, it may be safe to attend a clinic that is separate from where COVID-19 patients are being treated. Oral treatment options could be prescribed by your care provider virtually, without the need to attend the clinic. Finally, some follow-up appointments or discussions could be held virtually (via skype or zoom for example) or over the phone to minimize your risk. As we know, conditions and protocols are changing daily due to the nature of the COVID-19 outbreak, and vary based on location, therefore, the best first step is to reach out to your care provider for guidance.

https://www.cancer.gov/contact/emergencypreparedness/coronavirus

Should you wish to contact your local public health agency, please see below.

Alberta
COVID-19 info for Albertans
Social media: Instagram @albertahealthservices, Facebook @albertahealthservices, Twitter @GoAHealth
Phone number: 811

**British Columbia**
British Columbia COVID-19
Social media: Facebook @ImmunizeBC, Twitter @CDCofBC
Phone number: 811

**Manitoba**
Manitoba COVID-19
Social media: Facebook @manitobagovernment, Twitter @mbgov
Phone number: 1-888-315-9257

**New Brunswick**
New Brunswick Coronavirus
Social media: Facebook @GovNB, Twitter @Gov_NB, Instagram @gnbca
Phone number: 811

**Newfoundland and Labrador**
Newfoundland and Labrador COVID-19 information
Social media: Facebook @GovNL, Twitter @GovNL, Instagram @govnlsocial
Phone number: 811 or 1-888-709-2929

**Northwest Territories**
Northwest Territories coronavirus disease (COVID-19)
Social media: Facebook @NTHSSA
Phone number: 811

**Nova Scotia**
Nova Scotia novel coronavirus (COVID-19)
Social media: Facebook @NovaScotiaHealthAuthority, Twitter @healthns, Instagram @novascotiahealthauthority
Phone number: 811

**Nunavut**
Nunavut COVID-19 (novel coronavirus)
Social media: Facebook @GovofNunavut, Twitter @GovofNunavut, Instagram @governmentofnunavut
Phone number: 1-888-975-8601

**Ontario**
Ontario: The 2019 Novel Coronavirus (COVID-19)
Social media: Facebook @ONThealth, Twitter @ONThealth, Instagram @ongov
Phone number: 1-866-797-0000

**Prince Edward Island**
Prince Edward Island COVID-19
Social media: Facebook @GovPe, Twitter @InfoPEI,

**Quebec**
Coronavirus disease (COVID-19) in Québec
Social media: Facebook @GouvQc, Twitter @sante_qc
Phone number: 1-877-644-4545

**Saskatchewan**
Saskatchewan COVID-19
Social media: Facebook @SKGov, Twitter @SKGov
Phone number: 811

**Yukon**
Yukon: Find information about coronavirus (COVID-19)
Social media: Facebook @yukonhss, Twitter @hssyukon
Phone number: 811