COLORECTAL CANCER TREATMENT & CLINICAL RESEARCH UPDATES

Month Ending March 20th, 2023

The following colorectal cancer treatment and research updates extend from February 16th, 2023, to March 20th, 2023, 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 (Mar.10/23)

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 (Mar.13/23)
INTRODUCING

Tumour-Agnostic Therapies

Advances in precision medicine have brought therapies that specifically target what is driving a patient's cancer.

Cancer location A
Cancer location B
Cancer location C

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

Genomic driver A
Genomic driver B
Genomic driver C

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.

1. Patients undergo a biopsy to obtain a sample for testing
2. Tissue is sent to lab to test for genomic changes
3. Results sent to clinician to help decide on treatment

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

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
- Offers an innovative, new and effective approach to treating cancer
- 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

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 (Mar.12/23)**

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 of 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.

https://sunnybrook.ca/trials/item/?i=293&page=49335 and http://clinicaltrials.gov/ct2/show/NCT03750786

https://isofolmedical.com/arfolitixorin/

5. **Compugen Begins Trial of TIGIT, PVRIG Inhibitors with Keytruda in CRC (Mar.6/23)**

Compugen announced that the first patient with metastatic, microsatellite-stable colorectal cancer (CRC) has received treatment within a clinical trial exploring the efficacy of different regimens comprising its PVRIG and TIGIT inhibitors, and Merck’s checkpoint inhibitor Keytruda. Patients in the Phase I study will receive one of three treatments: just the TIGIT inhibitor COM902; COM902 plus the PVRIG inhibitor COM701; and COM902, COM701, plus Keytruda. The first patient treated in the trial received the triplet combination. Compugen aims to enroll 90 participants total, with up to 20 patients with microsatellite-stable CRC in the triplet arm. In this study, the company aims to build on positive data reported last year from a trial of COM701 plus Bristol Myers Squibb’s checkpoint inhibitor Opdivo (nivolumab) in microsatellite-stable CRC patients, according to Cohen-Dayag. The firm expects to report data from the latest Phase I trial of its drugs with Keytruda by the end of 2023.


6. **Results from SUNLIGHT Study Point to Practice-Changing Care for Patients with Refractory mCRC (Jan.21/23)**

Presented during the annual ASCO Gastrointestinal Cancers Symposium, January 19-21, results from the phase III SUNLIGHT study could potentially change clinical practice in the third-line treatment of refractory metastatic colorectal cancer (mCRC). This open-label controlled two-arm, phase III comparison study was designed to validate the efficacy and safety of the orally administered combination of trifluridine/tipiracil plus monoclonal antibody bevacizumab versus standard of care trifluridine/tipiracil alone in the third-line treatment of 492 patients with refractory mCRC who had progressed after two lines of prior therapy.
Researchers reported an improved median survival of 3.3 months with trifluridine/tipiracil plus bevacizumab, from 7.5 months with trifluridine/tipiracil monotherapy to 10.8 months with the combination regimen. Progression-free survival was 2.4 months with trifluridine/tipiracil alone versus 5.6 months combined with bevacizumab. Time to deterioration in global health status was 4.7 months and 8.5 months, respectively. Quality of life was graded according to the ECOG Performance Status Scale. Median time to worsening to a grade 2 or more was 9.3 months with the combination compared with 6.3 months in those patients receiving trifluridine/tipiracil alone.

The data points to trifluridine/tipiracil plus bevacizumab as a new standard of care. This combination therapy could therefore open a much needed, more effective treatment avenue for patients with refractory mCRC who have progressed after two lines of therapy.

https://www.eurekalert.org/news-releases/977333
https://meetings.asco.org/abstracts-presentations/215763

7. A Study of Nivolumab, Nivolumab Plus Ipilimumab, or Investigator’s Choice Chemotherapy for the Treatment of Participants with MMR-D/MSI-H mCRC (Nov.29/22)

The main purpose of this study is to compare the clinical benefit achieved by nivolumab monotherapy or by nivolumab in combination with ipilimumab in participants with Microsatellite Instability High (MSI-H) or Mismatch Repair Deficient (MMR-D) metastatic colorectal cancer (mCRC). This study will also compare nivolumab plus ipilimumab combination vs chemotherapy for treatment of MSI-H/MMR-D mCRC participants.

Participants will be randomly assigned to one of three arms: Arm A: Nivolumab Monotherapy, Arm B: Nivolumab + Ipilimumab Combination or Arm C: Investigator's Choice Chemotherapy. The primary outcome measure is progression-free survival (PFS), while the secondary outcome measures include overall response rate (ORR) and overall survival (OS). This study is has an estimated completion date of June 10, 2026.

https://clinicaltrials.gov/ct2/show/NCT04008030

8. Hepatic Artery Infusion Pump (HAIP) Chemotherapy Program – Sunnybrook Odette Cancer Centre (Mar.1/23)

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
9. Living Donor Liver Transplantation for Unresectable CRC Liver Metastases (Mar.2/23)

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

10. In Vivo Lung Perfusion (IVLP) for CRC Metastatic to Lung (Mar.9/23)

A new study is investigating a technique called In Vivo Lung Perfusion (IVLP) for delivering chemotherapy directly into the lungs at the time of surgery. Delivering chemotherapy directly to the lungs could potentially kill any microscopic cancer cells that are present in the lungs at the time of surgery, while sparing other major organs in the body from the side effects of chemotherapy.

At the University Health Network, this IVLP technique has been used recently in a Phase I study in patients with sarcoma, and they are now expanding on that experience to include patients with colorectal metastases. The purpose of this study is to test the safety of the IVLP technique and find the dose that seems right in humans. Participants are given oxaliplatin into one lung via IVLP and are watched very closely to see what side effects they have and to make sure the side effects are not severe. If the side effects are not severe, then more participants are asked to join the study and are given a higher dose of oxaliplatin. Participants joining the study later on will get higher doses of oxaliplatin than participants who join earlier. This will continue until a dose is found that causes severe but temporary side effects. The other lung will not be infused with anything, so that researchers can limit unforeseen toxicity to a single lung and see if one lung does better than the other.

The estimated enrolment is 10 participants, each with a diagnosis of colorectal carcinoma. The primary outcome is safety as measured by acute lung injury findings and the estimated primary completion date is January 1, 2027.
11. Study Offered at the Odette Cancer Centre to Treat Recurrent Rectal Cancer (Mar.9/23)

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/NCT05611034?term=ivlp&draw=2&rank=1

12. Trends in the Incidence of Young-Onset CRC with a Focus on Years Approaching Screening Age (Mar.10/23)

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-d1f2df7b6c9

13. LifeLabs Launches Signatera, Offering Canadians an Innovative and Personalized Approach to Managing Cancer (Feb.1/23)

LifeLabs is pleased to share the launch of Signatera, a highly sensitive, personalized molecular residual disease assay (MRD) test developed by Natera for treatment monitoring and molecular residual disease (MRD) assessment in patients previously diagnosed with cancer. This innovative test uses circulating tumor DNA (ctDNA) and is personalized for each patient to help assess recurrence risk and identify relapse up to two years earlier than the current standard of care tools. The clinical utility of Signatera across cancer types has been validated by multiple studies. In those trials, Signatera demonstrated predictive values such as:
Signatera testing involves two phases with pre-supplied collection kits. The first phase is an initial test that analyzes both a tumour tissue and blood sample, and the second phase involves subsequent blood tests on an as-needed basis. It is a safe, non-invasive way to monitor ctDNA levels to help physicians understand treatment efficacy and detect relapse without the inconvenience of repeated tissue biopsies and/or imaging.

For more information on how to access the test, please visit:

https://www.lifelabsgenetics.com/product/signatera/


For more information, please visit the OncoHelix website.

Other

15. Young Adult CRC Clinic Available at Sunnybrook (Mar.5/23)

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), along with Dr. Petra Wildgoose (Hepatobiliary and Colorectal Oncology Surgical Assistant), and their team at the Sunnybrook Health Sciences Centre understand the needs of this patient population.

Both belong to a multidisciplinary team of experts in the **Young Adult Colorectal Cancer Clinic** who work with young CRC patients, regardless of disease stage, to create an individualized treatment plan to support each patient through their cancer journey. Patients’ 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

### 16. CCRAN’s Partnership with “Count Me In” (Mar.1/23)

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 [JoinCountMeIn.org/Colorectal](http://JoinCountMeIn.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 [JoinCountMeIn.org/Colorectal](http://JoinCountMeIn.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 250 patients have joined the Colorectal Cancer Project since the launch in fall 2021. Every patient that joins the Colorectal Cancer Project enables us to learn more about colorectal cancer. Pts diagnosed at any age, whether newly diagnosed or years from their diagnosis, can enroll. If you have ever been diagnosed with colorectal cancer, you can visit JoinCountMeIn.org/Colorectal to enroll and have a direct impact on research and future treatment strategies.
Every colorectal cancer patient’s story holds a piece of the puzzle that can help us better understand how to treat this disease. Join our partners at @joincountmein to help generate more data for CRC by sharing your medical records, samples, and unique experiences with researchers everywhere.

Learn more at JoinCountMeIn.org/colorectal


17. Patients and Caregivers Needed to Help Shape Early Research for a CRC Therapy (Mar.10/23)

The Project:
Site specific immunomodulators (SSIs) are a new class of therapy, made from dead bacteria. This therapy is designed to help the body’s own defense system (“immune cells”) fight cancer. SSIs may be a potential new treatment for colorectal cancer and have already been shown to be safe in cancer patients. Our team of scientists and clinicians are planning a clinical trial to determine if SSIs can increase the number of patients who survive colorectal cancer metastatic to the liver. The trial will start this Fall and is being led by Dr. Rebecca Auer (Ottawa) and Dr. Paul Karanicolas (Sunnybrook).

Why do we need your help?
We want patients and family members to help us shape our research, which aims to improve the experience of trial participants.
We are currently looking for patients, caregivers, or family members to join our team. As a part of our team, you will:
☐ Participate in group meetings (online and/or in person) with the research team from May 2022 to March 2024
☐ Help brainstorm and draft resources and documents for future trial participants
☐ Provide input on research to evaluate the usefulness of the developed resources

Who can apply?
We are looking for individuals with any of the following:
☐ A patient, family member, or a caregiver, with lived experience of colorectal cancer, liver metastases, and/or liver surgery
☐ Interested in helping shape research to assess a new therapy for colorectal cancer

No previous experience with SSIs or research is necessary. An orientation session will provide more information about the research project, and we encourage you to ask any questions you have at any time.

In appreciation for your time, partners will receive compensation for attendance at meetings and activities.

If you are interested in joining our team or would like more information:
Please contact Meredith Conboy, Research Assistant, The Ottawa Hospital Research Institute
Email: mconboy@ohn.ca
18. Under 50 National Colorectal Cancer Information/Support Group Now Available at CCRAN! (Mar.2/23)

ARE YOU AN EARLY AGE ONSET (<50 YEARS) COLORECTAL CANCER PATIENT OR CAREGIVER LOOKING FOR INFORMATION OR SUPPORT?

Meet Hayley Painter R.N. and proud survivor of metastatic colorectal cancer!

Hayley will be assuming the lead on CCRAN’s Monthly National Under 50 Colorectal Cancer Information/Support Group Meetings!

When: Every third Sunday of the month
Time: 7:00 – 9:00 p.m.
Where: Via Zoom
To Register: Hayley.p@ccran.org

Please join Hayley as she will deliver important treatment updates and provide optimal support to each patient in their colorectal cancer journey at these support group meetings. To register for the meeting, please contact Hayley at hayley.p@ccran.org.

19. CaringVirtually: A Virtual Care Oncology Patient Study (Feb.27/23)

Majd Ghadban and Julia Stoneman are co-leading a study to understand cancer patient experiences with using virtual care as a method of healthcare delivery during the COVID-19 pandemic. The study is being undertaken by a network of national oncology patient organizations in Canada known as CONECTed: Collective Oncology Network for Exchange, Cancer care innovation, Treatment access and Education.

More information about CONECTed can be found on its website: https://conected.io/

In addition to Majd Ghadban and Julia Stoneman, the study team includes Jessica Finucane, Ed.S., Dr. Ambreen Sayani, Postdoctoral Fellow – CIHR Patient-Oriented Research, Leadership Stream at the Women’s College Research Institute, Women’s College Hospital, Louise Binder, Health Policy Consultant, Save Your Skin Foundation and member of CONECTed’s Steering Committee, and Dr. Tim Ramsay, Scientific Director, Ottawa Methods Centre.

Study Purpose
The purpose of this study is to understand cancer patient experiences using virtual care during the COVID-19 pandemic, and to develop recommendations that will help to ensure adoption and adaptation of equitable, equal, consistent, and comprehensive virtual care best practices across Canada. To achieve the objectives of this project, one-on-one interviews will be conducted with cancer patients who have used virtual care during the COVID-19 pandemic as part of their cancer care. These interviews are offered in both English and French, for which an honourarium will be provided.

Study findings will be used to develop reports, which will be made public. The findings will also be used to inform future studies in the area of virtual care and oncology.

For more information, please click on the PDFs below.

20. Is Colon Cancer Curable? (Feb.22/23)

It is common for questions to arise following a colon cancer diagnosis, thus, MD Anderson released this article after speaking with colon and rectal cancer surgeon George Chang, M.D., to learn more about colon cancer.

https://www.mdanderson.org/cancerwise/is-colon-cancer-curable.h00-159616278.html
21. Seven Ways Black Americans with mCRC Can Find Support (Feb.14/23)

If you are a person of African descent facing metastatic colorectal cancer (mCRC), here are ways to find support:

1. **Ask your primary care doctor, oncologist, or other members of your care team about which services are available to you**. There are organizations that can connect you with case managers, patient navigators or social workers. They can help you manage your appointments, finances, and insurance issues, as well as get you connected with programs that can help pay for housing and transportation and provide psychosocial support.

2. **Reach out to family and friends**. "If someone is offering to help you, let them help you — even if it’s just watching the kids for a while," says Candace Henley, a Black woman and mother to five who was diagnosed with CRC at 34. Bring a friend or a family member to doctor appointments, she adds. "That person can ask questions and make sure everything has been heard and understood."

3. **Speak up**. "Studies show that minority patient symptoms can be downplayed, attributed to other things, or misinterpreted," says Heather Yeo, MD, a colon and rectal surgical oncologist at Weill Cornell Medicine in New York City. "This can mean you don’t get needed help in managing side effects from cancer treatments." If you experience outright racism, report it to the management at the care center, says Henley. "Nothing ever changes if we don’t report it."

4. **Find online resources**. Reach out to national organizations such as Fight Colorectal Cancer, the Colon Cancer Coalition, and the Colon Cancer Foundation and Henley’s Blue Hat Foundation.

5. **Look to your faith**. "For those with religious or spiritual beliefs, faith can be quite comforting," says Henley. "Prayer can give us peace to accept the situation."

6. **Keep up healthy habits**. It may not be easy, but do your best to sleep well, get enough exercise, and eat healthy — all of which will help with your recovery, says Dr. Yeo.

7. **Keep hope alive**. "I have a lot of hope for people with mCRC," says Yeo. "I have patients who have had metastatic cancer and who I am taking care of for more than 10 years. Some are cured. With better understanding of cancer genetics, immune therapies and surgery, we are making progress."

22. The Psychological Toll of Surviving CRC (Feb.21/23)

More and more patients are surviving colorectal cancer (CRC) long term, thanks to advances in treatment. A new study addresses a little-understood aspect of these survivors’ experience: the emotional aftermath.

Within a sample of 220 CRC patients who had participated in a previous randomized control trial, the study found that, even many years after their diagnosis, one third of respondents characterized their worst experience during their illness as "psychological distress," referring primarily to anxiety regarding the uncertainty of their prognosis. About 17% cited "indigestion and discomfort during defecation," and 16% cited receiving the cancer diagnosis itself as their worst experiences. In addition, among patients with a history of stoma, 36% said that the stoma was the worst part. On the other hand, 45% of patients reported that a "change in life priorities" was the most positive aspect of surviving colorectal cancer. One in four survivors said they were grateful for the support they received from their medical team.

The researchers behind the study noted that they hope their work will help cancer programs improve both patient care and aftercare. These issues can inform aftercare in three key ways: the surveillance plan for their cancer — meaning frequency of their bloodwork, imaging, and follow up visits; diet, wellness, and lifestyle changes that can reduce their risk for cancer recurrence, which are often underdiscussed; and mitigating the short- and long-term side effects, of the treatments that they received.

23. Diagnosed with Colon Cancer: 10 Tips on How to Get the Most from Your Doctor (Feb.21/23)

1. **Be Your Own Advocate**. Inform yourself about colon cancer before you see your doctor. Try your best to understand your stage, range of treatment options, and the potential role of precision cancer medicines.

2. **Strongly consider a second opinion**. Getting a second opinion from a colon cancer expert will help you understand ALL available treatment options and provide reassurance to you and your family that you are receiving the most appropriate therapy.

3. **Ask about the role of precision medicines**. Unlike traditional chemotherapy, which attacks any cell in the body that is rapidly dividing, precision cancer medicines target specific genetic alterations that allow cancer cells to grow. Most or all colon cancers result from abnormal genes or gene regulation. The strategy of precision cancer medicine
is to define abnormalities at the most basic genetic level. These abnormalities in the DNA are called genomic alterations and they are responsible for driving cancer cell growth.

4. Join an online support community. An online community can be a great resource to help find a doctor, share information and learn about treatment choices with other individuals in your situation.

5. Ask About ctDNA Testing. Cancer is caused by genetic mutations, and these mutations can be detected by measuring circulating tumor DNA, or ctDNA, in the blood. Detection of ctDNA allows for personalized cancer surveillance based on an individual's unique set of tumor mutations.

6. Bring written questions to your visit. A doctor's visit is stressful, it is much easier to bring a list of written questions to ensure they all get answered and none are forgotten. Bring someone with you to take notes or consider using a recorder so you can listen and engage your doctor carefully.

7. Be organized. To stay on top of the treatment routine, it's critical to record notes from doctor appointments, questions/answers for your physician, dates of appointments, test results blood cell counts, medications and dosing schedules, prescription refills and other information.

8. Make sure you understand the treatment outcomes. Your doctor should be able to tell you what you chance of survival/cure is if you elect to receive no treatment then explain how each proposed treatment improves upon that outcome.

9. Ask about clinical trials. By learning about clinical trials, you can identify opportunities that advance the treatment of colon cancer and possibly benefit your personal prognosis.

10. Build your CRC treatment team. For anyone diagnosed with CRC, the first step is to gather the right people to ensure that you'll receive the best treatment possible. Research has shown that people with CRC are more likely to get the best results if they have a good team of medical specialists taking care of them. 


24. Understanding MSI-High and DNA Mismatch Repair (Feb.10/23)

Microsatellite instability (MSI) is the condition of genetic hypermutability or a predisposition to mutations in cells that results from the bodies impaired DNA mismatch repair (dMMR) mechanism. DNA MMR is an essential function and the way the body naturally corrects errors that spontaneously occur during cell division associated DNA replication.

Microsatellite unstable cancers can be divided into two distinct MSI phenotypes: MSI-high (MSI-H) and MSI-low (MSI-L). MSI-H cancers are more likely to respond to certain treatments, especially with immunotherapy. MSI-H is caused by the absence of certain proteins which help repair DNA in cells when it breaks. When these are absent or not working properly a healthy cell can't repair itself normally and it starts making many mistakes in its own genetic code. This disordered repair and growth is the hallmark of cancer. Colorectal cancer (CRC) is the disease most commonly associated with MSI-H, but essentially any cancer can be implicated. It is abnormality found in about 15% of colon cancers and other cancers. MSI-H colon cancers are best treated with a certain type of immunotherapy called checkpoint inhibitors which are more effective than chemotherapy.

Since MSI-H is frequently associated with genetic deficiencies that can be hereditary, it is important to understand the implications for family members. MSI-H findings on a cancer can also be sporadic, meaning that they don’t always change a family member’s risk of developing the same types of cancer.


25. Levels of Cell-Free DNA Do Not Impact ctDNA Detection in Patients with CRC (Jan.21/23)

A large-scale study using real-world data from patients with resected colorectal cancer (CRC) found that the levels of cell-free DNA (cfDNA) in plasma do not appear to significantly affect circulating tumor DNA (ctDNA) detection. Additionally, standard testing windows for minimal residual disease (MRD) could start as early as 15 days postoperatively.

The use of ctDNA to monitor MRD in patients with CRC has increased in the last several years. It is also known that cfDNA, which arises from normal tissue, can be elevated postoperatively and when patients receive adjuvant chemotherapy. The concern is that in the immediate postoperative period (when you know that there is going to be higher cfDNA) that it is going to be harder to detect ctDNA. As a reaction, many people were not evaluating ctDNA until 4 weeks after surgery. Waiting too long to test can lead to delays in treatment. This study was undertaken to understand how cfDNA levels and the timing of blood samples impact MRD monitoring for patients who undergo colon cancer surgery.

Results demonstrated that the levels of cfDNA were noticeably greater in the 2-week period immediately after surgery and when patients were receiving adjunctive chemotherapy. In addition, cfDNA concentrations 2 to 4 weeks after surgery were slightly greater than those seen in the 4- to 8-week time frame. In the first 2 weeks after surgery, when cfDNA concentrations were higher, ctDNA was detected in approximately 18% of patients. When analyzing the data in the period > 2 weeks postoperatively, ctDNA detection rates were consistent from weeks 4 to 8.
One of the factors that the researchers evaluated was whether baseline cfDNA impacted ctDNA positivity, and they found that it did not. There was no association between cfDNA concentration and ctDNA positivity. ctDNA positivity 2 to 8 weeks after surgery and in the surveillance period was associated with significantly worse recurrence-free survival compared with patients who were negative for ctDNA. ctDNA positivity remains a strong predictor of recurrence. Researchers plan to look further to see where ctDNA is additive for clinical practice. While MRD testing for colorectal cancer has yet to become the standard of care for patients with resected localized disease, this study further opens the possibility of doing this testing earlier after surgery.


26. EXercise for Cancer to Enhance Living Well (EXCEL) Study (Mar.11/23)

Exercise for Cancer to Enhance Living Well (EXCEL) is a 5-year Canada-wide project, which offers free, 12-week exercise classes designed specifically for individuals undergoing or recovering from cancer treatment. Classes are online through a secure video-conferencing platform, and where possible, in-person (post-COVID). Physical activity can help overcome treatment-related side effects such as fatigue and pain, improve mental health by reducing anxiety and depression, and improve overall quality of life for individuals living with and beyond cancer. Studies show that physical activity may even reduce the risk of recurrence for some cancers. Many urban centres in Canada offer cancer-specific exercise programs, however, rural and remote areas tend to lack exercise resources to support cancer survivors, resulting in lower activity levels, poorer health, and diminished quality of life. Thus, EXCEL targets cancer survivors living in rural and remote regions across Canada, empowering them to move more and providing opportunities to benefit from physical activity.

To learn more about the EXCEL study: https://kinesiology.ucalgary.ca/labs/health-and-wellness/research/research-studies/exercise-cancer-enhance-living-well-excel

To hear about participant experiences: https://www.youtube.com/watch?v=c01oo4Yd3oA

27. The Association Between Stroke Belt Residence, CRC Incidence, and Diet (Feb.20/23)

Processed and red meat consumption has been identified as a significant risk factor for colorectal cancer (CRC). Since there are several ethnic and racial differences in CRC cases, trends in food intake, and regions of residence, extensive data is required regarding the association between living in areas having high CRC incidence and stroke levels and consumption of red and processed meat. Researchers explored the correlation between residing in Stroke Belt states (Alabama, Arkansas, Georgia, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia) and the incidence quartiles of CRC with dietary consumption.

The study results showed that participants reported the consumption of an average of 6.95 meat servings, with red meat consumed at 3.42 servings over the past week. Also, around 15.4 servings of healthy foods were ingested in the past week. The team noted that residence in a Stroke Belt state was substantially associated with greater red meat intake but not with the consumption of healthy foods. Residing in CRC states was not notably related to red meat or meat consumption. However, residing in Q2 CRC states (California, Idaho, Minnesota, Missouri, Texas, Wisconsin, North Carolina, Michigan, Connecticut, Maryland, Massachusetts, Maine, and Hampshire with the second lowest incidence of CRC) was significantly related to the highest consumption of healthy foods.

Therefore, study findings revealed that both total and red meat intake are influenced by geographic location. Public health interventions targeting lowering diet-related health disparities must consider the interaction of geography and meat consumption. The researchers believe that the association of dietary habits with structural and systemic influences underscores the significance of continuing to assess the relationship between diet choices and diet-related health problems and identifying protective variables that can be employed in public health interventions.

28. Regardless of the Variant, Prior Infection Holds Up Against Severe COVID (Feb.17/23)

Previous SARS-CoV-2 infection offered strong protection against severe disease from a subsequent reinfection, with little difference observed between strains, though prior Omicron BA.1 infections were less protective against another reinfection.

This systematic review and meta-analysis included 65 studies from 19 countries, including retrospective and prospective cohort studies and test-negative case-control studies published up to Sept. 31, 2022. Any study with results on the protective effect of natural immunity in individuals who were not vaccinated in comparison with those who were not vaccinated and COVID-naive were included, as were studies that included individuals controlled for vaccination status. Any study that included hybrid immunity was excluded.

Mean pooled effectiveness against reinfection or symptomatic reinfection was 82% or higher for the pre-Omicron strains compared with about 45% for the Omicron BA.1 variant. While protection from reinfection from the pre-Omicron strains declined over time, it remained high, at 78.6% at 40 weeks versus 36.1% for Omicron BA.1, researchers noted. The analysis suggests that the level of protection from past infection by variant and over time is at least equivalent if not greater than that provided by two-dose mRNA vaccines. These data have implications for future guidance on when to get a booster dose, they added. Researchers note it supports the idea that those with a documented infection should be treated similarly to those who have been fully vaccinated with high-quality vaccines.

https://www.medpagetoday.com/infectiousdisease/covid19/103165

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. It is also possible to become infected with COVID-19 and not experience any symptoms or feeling ill. The spread of COVID-19 is mainly through the transmission of droplets from the nose or mouth when a person coughs, exhales or sneezes. 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.
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.

Q. 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.

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 Quèbec
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