Canadian Cancer Society / Société canadienne du cancer

ACC-22 Non-Confidential Abstracts

Dr Kristin Campbell, University of British Columbia

Knowledge Translation and Mobilization to Support Exercise Recommendations for People with Bone Metastases

BACKGROUND: Historically, those with bone metastases were counselled to avoid exercise due to the risk of bone fracture. However, exercise avoidance has negative implications on individuals' strength, stamina, ability to maintain activities of daily living, and overall wellbeing. In 2022, the International Bone Metastases Exercise Working Group (IBMEWG), led by Canadian researchers and clinicians, published "Exercise Recommendations for People with Bone Metastases". These recommendations are an expert consensus statement for health care providers and exercise professionals (Campbell et al. JCO OP 2022). The set of recommendations were developed through a rigorous process including a systematic review (Weller et al. Crit Rev Onco Hem 2021), a cross-sectional survey of physician and nurse practitioners (Adams et al. J Cancer Surv 2021), and a modified Delphi survey of content expertise, followed by an in-person meeting to develop recommendations. Studies have shown that publication of clinical practice guidelines in isolation is insufficient to change clinical care. To increase the use of research evidence in practice, approaches such as co-design and dissemination of implementation tools (i.e., knowledge products) by researcher and knowledge users (KU) has been shown to be effective.

METHODS: Using the knowledge to action framework, this proposed project will close the gap between ***knowledge creation*** and ***action***, using an experience-based co-design approach (EBCD). First the project team will ***identify and mobilize KU groups***, namely: 1) people with bone metastases and family partners (n=10); 2) healthcare providers (HCPs) who are part of the clinical team for people with bone metastases (i.e., physicians, nurses, allied health) (n=10); and 3) exercise professionals (EPs) who work with people with bone metastases in the community (i.e., physiotherapists, kinesiologists, fitness instructors) (n=10) [*Objective 1*]. In a series of facilitated meetings using an EBCD approach, the three KU working groups will ***create knowledge products and a develop a dissemination plan*** [*Objective 2 & 3*]. Following an established four-step equity, diversity and inclusion approach, we will intentionally identify and prioritize barriers faced by historically excluded populations. The draft knowledge products and dissemination plan will then be shared with additional representative KUs across Canada (n=150) who will be asked to provide their feedback via an on-line survey to refine the knowledge products and dissemination plan. We will then disseminate and ***evaluate uptake of the knowledge products*** [*Objective 4*]**.** Using a convergent parallel mixed methods design we will assess key implementation outcomes of *reach* and *acceptability*. Reach will be evaluated by indicators such as google and social media analytics. Acceptability will be evaluated at the patient and provider levels via an invitation to complete a brief cross-sectional survey on first impressions of knowledge products (i.e., perceived usefulness of knowledge product, intentions to use, and potential barriers to use), along with a request to complete a second follow up survey 2 to 4-weeks later to understand if, and how, they used the knowledge products since receiving them, and/or via qualitative interviews toenhance interpretation and understanding of the survey responses. Finally, we will consolidate our findings to present to the IBMEWG which can be used in an update to the recommendations to **support sustained knowledge use** [*Objective 5*].

ALIGNMENT: The proposed project aims to develop and evaluate strategies that can influence the knowledge mobilization of the IBMEWG "Exercise Recommendations for People with Bone Metastases". The outcome of this work will be to increase the number of people in Canada who will have equitable access to evidence-informed recommendations for supportive care that can improve quality of life for people living with bone metastases or at risk of developing bone metastases in Canada.

Dr Adina Coroiu, Centre for Addiction and Mental Health

Creating capacity to implement referrals to smoking cessation across regional cancer centers in Ontario

Rationale. Smoking after cancer increases the risk of treatment-related toxicity, recurrences, new primary cancers, and poorer treatment response. Smoking cessation after a cancer diagnosis is associated with anoverall reduction in all-cause mortality and 30-40% reduction in cancer-related mortality. In Canada, 20% of patients with cancer smoke daily or occasionally.
In Ontario, provincial-level data collected by Ontario Health show that screening rates for tobacco use among patients newly diagnosed with cancer increased from 46% in 2015 to 70% in 2018. However, **referral rates** to smoking cessation **remain lower** for patients with cancer, at 60%, but with wide variation between regional cancer centers (19-82%). In addition, patient acceptance of a referral to smoking cessation services was very low, at 22%, again with wide variation between centres (7-53%).

Gaps. Despite known health benefits of smoking cessation for cancer patients, there is an **implementation gap** whereby referrals are not implemented consistently in cancer centres and patient acceptance of referrals is very low. Barriers to referrals to smoking cessation have never been systematically investigated in cancer centres in Ontario especially using an implementation framework. Our overall **objective** is to assist regional cancer centres (RCC) in Ontario to reach the provincial target of 80% patients referred and 50% patients accepting the referrals to smoking cessation

Aim 1. Identify barriers to *giving* and *accepting* referrals to smoking cessation for patients receiving care in the regional cancer centres (RCC) in OntarioWe will use a 2-phase sequential mixed-method design with a qualitative phase (Phase 1), followed by a quantitative phase (Phase 2). In Phase 1 we will conduct interviews with smoking cessation champions and providers to investigated barriers to providing referrals; and interviews with patients and family members to investigate barriers to accepting a referral. In Phase 2, we will access health administrative data about referrals. A matrix combining qualitative findings (site-, provider-, and patient-level barriers) with quantitative results (clinic-, provider-, and patient-level characteristics associated with referral rates) will characterize the implementation context for low and high performing RCC's.

Aim 2.Determine best practices to successfully implement referrals to smoking cessation in cancer treatment settings. We will conduct a rapid realist review of smoking cessation interventions for patients with cancer to identify implementation strategies and mechanismsthat affect the success or failure of interventions. Scientific databases (e.g., Medline, EMBASE) will be systematically searched for relevant studies and two reviewers will carry out the study selection and data extraction. Implementation strategies and mechanisms will be organized as per the domains of the Consolidated Framework for Implementation Research framework.

Aim 3. Create implementation plans for smoking cessation referrals tailored to cancer center capacity and culture. We will conduct a two-phase Delphi study to develop consensus on best implementation plans for each participating RCC (n=14). In **Phase 1**, there will be two consensus meetings with implementation science experts (n=10) to match barriers identified in Aim 1 with evidence-based implementation strategies and mechanisms identified in Aim 2. In **Phase 2**, we will administer three rounds of surveys in which smoking cessation champions, providers, and patients and family members will rank the likelihood of success of each combination of *barrier-strategy-mechanism* identified by experts, per Delphi Phase 1.

The proposed project will produce, via the three aims, actionable solutions to address barriers to implementing smoking cessation referrals in regional cancer centres in Ontario.

Dr Trevor Dummer, University of British Columbia

Preventing cancer in the gender minority population: a knowledge synthesis of existing practice

Unmet Need

While existing cancer prevention strategies address the needs of the majority population quite well, alternate strategies that account for the needs of marginalized communities who are often at an increased risk of cancer are lacking. One such marginalized community is the gender minority (GM) community, which includes people who have a gender identity that is different from their assigned sex at birth, such as transgender or nonbinary people. While GM people are a part of the LGBTQ2S (lesbian, gay, bisexual, transgender, queer or questioning, two-spirit, and additional sexual orientations and gender identities) community, their lives are uniquely affected by stigma and discrimination targeting differences in gender identity and expression. While some cancer prevention strategies are targeted exclusively towards sexual minority people, these do not address the distinctive issues and needs of GM people affected by gender-related minority stressors. The experiences that GM people face, such as transphobia and discrimination based upon gender identity, is unique to this community and therefore cancer prevention strategies developed for these communities need to take these distinct experiences into consideration. There is evidence to suggest that cancer-related behavioural factors (physical inactivity, smoking, alcohol) are high in the GM community, and structural factors often impact the ability of GM people to follow behavioural guidelines to help reduce their cancer risk. Very little is known about policies, practices, activities or interventions that are implemented specifically to support cancer prevention in the GM community.

Objectives

1. Conduct a literature and policy scan to identify gender minority cancer prevention policies, programs, or activities
2. Synthesize primary and secondary cancer prevention recommendations found in the literature for GM people

Methodology

This project will synthesize and compare existing quantitative and qualitative evidence to inform cancer prevention policies and practices, that will target primary and secondary cancer prevention in the GM community. We will adopt a scoping review methodology to draw together available evidence to provide an overview of the current research landscape and identify specific gaps in policies and practices. We will draw upon peer reviewed and grey literature and conduct a policy review.

Impact

With GM people being protected by the Canadian Human Rights Act and more people having access to gender-affirming health care, society is shifting towards a greater acceptance of GM people. With changing norms that increasingly enable GM people to claim their identities publicly, GM populations will likely continue growing. Research has demonstrated that in this growing population, GM people are at higher risk of cancer than cisgender people (people whose sex assigned at birth aligns with their gender identity). This higher risk can be associated with higher engagement in cancer risk factors such as alcohol consumption and smoking, and lower access to cancer screening, all factors that are associated with GM people's exposure to stigma and discrimination. In regards to cancer risk factors, GM people may have higher engagement in cancer-causing substance use due to experiencing an extra amount of stress, from being a part of a marginalized population. For cancer screenings, experiences of stigma and discrimination from health care providers make accessing cancer preventing health care a challenge. This proposed synthesis is highly relevant to the GM community. Gender minority stress is a social determinant of health and this project will review current evidence and yield insights to support greater health equity for GM people. This project will illuminate the harsh realities GM people face when coping with being a part of a marginalized population and their struggles with accessing cancer preventing healthcare. The cancer prevention needs of this unique population need to be addressed in a culturally safe and inclusive manner to bring the GM community closer towards health equity.

Dr Harriet Feilotter, Queen's University

The Canadian Biomarker Adoption Pathway

The Implementation Laboratory (IL) is a virtual provincial laboratory in Ontario that aims to take on the work of assessing and optimizing measurement strategies for oncology biomarkers coming into clinical use. The goal is to remove the burden of this expensive and cumbersome process from individual clinical labs and create a centralized provincial entity to standardize biomarker measurement and share recommendations for commonly used biomarkers. The IL is a concrete example of small changes that can be implemented within a province, moving towards standardized and transparent movement of biomarkers from research to the clinical laboratories. However, the IL on its own, is insufficient to meet the needs of the country when it comes to effectively utilizing novel oncology biomarkers in the clinical setting. In our proposal, we will describe the current state of the IL in Ontario, but will now propose to carry out additional work to make it more effective within a learning health care system. We propose to expand the framework in which the IL works to ensure that it is part of the larger pathway that standardizes and harmonizes adoption of oncology biomarkers into clinical practice. Specifically, we propose to develop evidence-based guidelines for assessing when a biomarker is ready for implementation, to develop a forum for dissemination of information about the measurement of clinical biomarkers to labs and funders, and to close the loop by linking to a Canadian group that develops fit for purpose proficiency challenges for clinical and research labs to assess their ability to measure biomarkers of interest. We also plan to develop checklists of evidence types that should be collected for real world studies in the future. By developing these critical missing elements of the biomarker assessment process we will facilitate effective research translation from bench to bedside. This approach can be mobilized across the country relatively easily, providing an effective and rapid improvement the ongoing difficult issue of how, when and how to use oncology biomarkers for maximum benefit.

Dr Anna Gagliardi, The Toronto Hospital (General Division) - UHN
Improving communication about low-risk cancers

UNMET NEED

Ductal carcinoma in situ (DCIS) comprises 15-25% of screen-detected breast lesions, or 7,000+ new cases annually in Canada, with a low (3.3%) 20-year breast-cancer specific mortality. Due to lack of reliable clinical prediction tests, the standard of care for DCIS is lumpectomy or mastectomy +/- radiotherapy and/or hormone therapy. Given its potential "pre-cancerous" nature but overall favourable prognosis, communicating about DCIS is challenging. Physicians find it difficult to explain its low risk yet justify treatment, and women with DCIS report confusion and anxiety, which persists years after treatment, leading to poor physical and psychological outcomes, and reduced quality of life. In response, we established Canadian consensus recommendations to enhance person-centred DCIS care. One priority strategy was to develop non-cancer labels and language for DCIS, a strategy shown to reduce anxiety for other types of cancer with indolent forms such as low-grade squamous intraepithelial lesion (LSIL) and urothelial neoplasia of low malignant potential (UNLMP).

PURPOSE

The AIM is to support patient-centred communication about low-risk cancers. The OBJECTIVES are to: (1) Synthesize published research on patient and clinician preferences for DCIS labels and language, drawing on similar LSIL and UNLMP research to fully understand rationale (benefits/harms); (2) Prioritize review findings by establishing consensus on optimal DCIS labels and language, and (3) Share findings with relevant stakeholders including nomenclature agencies.

METHODS

We will employ a multi-methods sequential research design. ONE, we will review published research on communication about DCIS, LSIL and UNLMP to compile preferences and rationale for labels and language. ONE, we will search multiple databases (e.g. MEDLINE, EMBASE, CINAHL, Cochrane Library, Joanna Briggs, etc.) from 1990 to current for studies involving patients or clinicians related to communication. From eligible studies, we will extract data on study and participant characteristics, preferred or sub-optimal labels or language, and rationale (anticipate or measured benefits/harms). TWO, we will use a two-round Delphi online survey to establish consensus among a 60-member pan-Canadian panel of patients who vary by age and ethno-cultural group, and multidisciplinary clinicians on optimal DCIS labels and language, drawing from those identified in the review. This will reveal labels and language with overall strong consensus (rated 6 or 7 on the Likert scale by 80% of both patients and clinicians), consensus in only the patient or clinician group, or items rejected by both groups. THREE, we will employ a multi-faceted dissemination strategy to share optimal labels and language for DCIS (based on review and Delphi), and LSIL and UNLMP (based on review) with relevant stakeholders including nomenclature agencies.

RELEVANCE

The increasing number of patients diagnosed with low-risk cancers through widespread screening are suffering from needless confusion and anxiety that could be alleviated through refined labels and language. While our focus is DCIS, expanding the lens to include LSIL and UNLMP, and exploring the rationale (perceived benefits/harms) for preferred labels/language, will generate more fulsome insight on how to optimize communication, thereby benefiting many patients with low-risk cancers (e.g. papillary thyroid cancer, localized prostate cancer). This guidance will benefit: clinicians, who lack training and skills in delivering bad news, which contributes to emotional exhaustion and burnout; and patients with low-risk cancer by reducing anxiety, and improving psychological and clinical outcomes associated with patient-centred communication. Consensus on the ideal labels and language for DCIS could be used by nomenclature agencies when considering if and how to formally rename low-risk forms of DCIS. Even if they do not, this research will establish optimal language for communicating about DCIS and other low-risk cancers that can be adopted into policies, practice and patient-facing resources by our decision-makers and collaborators, and others.

Dr Gary Groot, University of Saskatchewan

Métis Cultural Continuity and Cancer Prevention: A Scoping Review

Despite being at higher risk for many cancers, Indigenous Peoples in Canada tend to lack access to cancer control and prevention initiatives compared to non-Indigenous people. Métis Peoples, a distinct group of Indigenous Peoples in Canada, have long experienced deleterious effects of colonization, including disconnection from their land, apprehension of Métis children, cultural suppression, and loss of cultural identity. In turn, these factors have negatively impacted health outcomes and wellbeing of Métis Peoples. The limited cancer data that are available suggest that Métis populations have higher rates of mortality and behavioral risk factors and lower screening rates compared to the general population. The literature suggests that the resurgence of Métis cultural identity and their relationships with the land can benefit health promotion and well-being. (Re)connecting, strengthening, and sharing Métis culture may be essential for cancer prevention strategies. Considering the crucial role of cultural continuity as a protective factor in the health of Indigenous Peoples in general, the goal of this research proposal is to study the ways that Métis cultural continuity leads to cancer prevention and health promotion in Canada.

The proposed project objectives are to: 1) explore the ways that cultural continuity can lead to positive health and well-being for Métis Peoples, 2) identify Métis-specific interventions that could inform cancer prevention programs for Saskatchewan and Canada, and 3) advance future research on the role of cultural continuity for Métis Peoples well-being. To achieve these objectives, we will conduct a scoping review of the existing literature and partner with Métis Nation-Saskatchewan (MN-S) and the Saskatchewan Cancer Agency (SCA) to integrate findings. Following Arksey and O'Malley's scoping review framework, we will: 1) construct the search strategy based on the research question, 2) locate relevant studies from academic and grey literature sources, 3) select studies based on Métis specific inclusion criteria, 4) chart the data, and 5) collate, summarize, and report the results. We will also assemble a committee of Métis cultural advisors, Métis cancer survivors, and representatives from MN-S and the SCA to guide all stages of the research. Because Knowledge Keepers and Elders are essential to preserving cultural continuity, they will be integral to the implementation of the findings.

By employing an integrated knowledge translation approach and working closely with MN-S and SCA, we anticipate our findings will be applied to future cancer prevention program development. As the governing body for Métis citizens in Saskatchewan, MN-S is positioned to incorporate the findings into its health programming. As the service provider for cancer prevention and screening in the province, SCA can use the results for program implementation, evaluation, and ongoing quality improvement. If funded, this research project would champion the role of cultural continuity and bring Métis perspectives to cancer prevention strategies in Saskatchewan. In addition, the findings can offer recommendations for incorporating Métis specific approaches into the Canadian health system.

Dr Brian Hutton, Ottawa Hospital Research Institute

Validity of routinely collected health data in recording breast cancer recurrence, progression & mortality: a scoping review of the literature.

Background - Unmet Needs. Breast cancer remains the most common cause of cancer-related death in women. As a result of randomized trials, there have been great advances in treating early-stage disease. Unfortunately, these trials commonly involve large sample sizes, as well as requirements for long-term prospective data collection over many years. This makes them incredibly expensive to perform. *Routinely collected health data (RCHD)*, including administrative data and electronic medical records, systematically collect patient encounters from administrative sources and include a broad range of data including diagnosis codes (e.g. ICD9/10) and service utilization (e.g. hospital visits, laboratory/imaging, etc). While use of administrative health care data has become of increasing value for outcome assessment in randomized trials in various fields such as cardiology, less is known about how this approach has been applied to breast cancer research. In RCTs researching the benefits of treatments for breast cancer (including both early-stage and metastatic populations), **progression-free survival** ***(PFS; in patients with advanced disease, the time from treatment to disease progression or death),*** **invasive disease-free survival** ***(iDFS; in patients receiving curative-intent treatment, the time from treatment to any invasive disease-free survival event, excluding second non-breast primary cancers)*** and**breast cancer-specific overall survival** (***BCSS; the time from treatment to death from breast cancer***) are well established as important outcomes that are not captured by RCHD. In the current application, we will perform a scoping review of the literature to assess currently available studies with regard to the outcomes of disease recurrence and progression, PFS, iDFS and BCSS. This work will inform future research by our team to develop new methods to estimate these outcomes from RCHD, which will be of great value to enhance efficiencies and reduce costs of future clinical trials for breast cancer in Canada.

Research Objective to be Addressed. The following research questions will be addressed using a scoping review approach:

1.What existing case definitions (in terms of diagnostic and billing codes within RCHD sources, or other features) have been studied to identify disease progression, disease recurrence and disease-specific mortality in breast cancer patients?

2.What has been the diagnostic performance of these case definitions (as measured by sensitivity, specificity, positive predictive value and negative predictive value) compared to a reference standard?

Methods. Searching of medical databases for relevant literature (Medline, Embase, CINAHL) will be performed with an information specialist. Study selection and data collection will involve multiple reviewers and follow recommended methods for scoping reviews. We will seek studies which compare approaches involving RCHD (e.g. strategies based upon ICD9/10 codes and billing codes) to estimate the outcomes of interest in breast cancer patients to a reference standard (e.g. chart review) and report at least one of sensitivity, specificity, positive or negative predictive value of the approach involving administrative data. Data will be synthesized descriptively, seeking to identify the most accurate approaches and the diagnostic codes/patient-related health care events that were involved.

Expertise, Deliverables and Impact for Patients. Our team includes expertise in medical oncology, knowledge synthesis, epidemiology and real-world data. We will collaborate with knowledge users from Ontario Health/Cancer Care Ontario and the RE-Thinking Clinical Trials (REaCT) pragmatic trials program in medical oncology. We will share findings through publications, lay summaries, webinars, social media and presentations at national meetings. This work will play a role in identifying ways to reduce both the high costs and patient burden of follow-up in future trials, ultimately leading to the enrollment of more patients in clinical research in Canada and improving patient care.

Dr Monika Krzyzanowska, Princess Margaret Cancer Centre - UHN

Operationalizing a Panel of Quality Measures for the Evaluation of Virtual Care in Oncology Practice

Background: Until recently, utilization of virtual care was largely confined to remote monitoring of chronic health conditions, and for delivery of subspecialty care in remote or rural populations. However, the Coronavirus Disease 2019 (COVID-19) pandemic catalyzed uptake and access, when virtual care advanced from an opportunity to a necessity. The increased susceptibility of patients with cancer to COVID-19 infection and attempts at reducing potential transmission by limiting in-person attendance at cancer centres, coupled with rapid infrastructure investments at the outset of the pandemic to maintain health system capacity facilitated a major shift toward virtual oncology care delivery. Findings of emerging quantitative and qualitative studies indicate that both patients and healthcare providers see benefits to virtual cancer care, particularly with respect to the impact of attending appointments on patients' finances and time, and convenience of accessing care. Despite these potential advantages, both patients and healthcare providers have expressed concerns regarding the potential impacts of virtual care on informational, relational and management continuity of care, particularly when interactions involve difficult conversations or physical examinations. However, the quality of cancer care delivered virtually remains to be comprehensively evaluated.

Rationale: The most recent oncology-specific synthesis of virtual care quality measures from the literature pre-dated the pandemic and focused solely on telephone-based care. As such, it does not reflect the rapid uptake of virtual care into routine practice6 or the implementation of more digitally-based solutions (video consultations), and asynchronous methods of communication (emails, text messaging) that have changed the landscape of how virtual cancer care is being delivered. Additionally, measurement to date has largely focused on costs, demonstrating that virtual is not worse than in-person delivery of care, or on examining psychosocial endpoints which do not adequately capture the impact of virtual care on health equity, patient or healthcare provider experiences, clinical outcomes and on the healthcare system.

Objectives and Methods: Our overarching objective is to co-design a comprehensive quality measurement framework to evaluate the use of virtual care in routine oncology practice alongside patient, clinician and knowledge user stakeholders. To do so we will:

1.Synthesize existing virtual cancer care quality measures: The Quintuple Aim (Nundy, 2022) is a recently proposed framework for effective health care systems which moves beyond the Quadruple Aim (patient and caregiver experience, population health, costs; and healthcare provider experience) to call out health equity as a distinct domain. Utilizing this framework, we will undertake a systematic search of the peer-reviewed and grey literature to identify existing measures of unique aspects of the quality of virtual cancer care that are adaptable to different cancer types and healthcare systems, and identify current gaps in virtual care measurement.

2.Co-design additional quality measures: We will develop additional stakeholder consensus-derived quality measures to address gaps in the literature utilizing the Nominal Group Technique. Stakeholders will include patients, caregivers, oncologists, malignant hematologists, nurses, allied health, administrators, and knowledge users.

3.Operationalize comprehensive panel of measures: We will develop operational definitions (numerators/ denominators) of population-based (health system-level) and hospital data-derived (institution-level) quality measures for use in the Canadian-context.

Relevance: Healthcare will not return to pre-pandemic levels of in-person care; continuous measurement and evaluation are needed to inform optimal models of virtual care delivery, and to help define the contexts under which virtual care provides the greatest value to patients, healthcare providers and the healthcare system. Cancer care is a unique clinical context involving intense care and specialized treatments which warrants the development of a cancer-specific evaluation framework.

Dr Sophie Lebel, University of Ottawa

Managing fear of cancer recurrence in clinical settings: an implementation study of the FORT intervention

Background: Pre-pandemic, fear of cancer recurrence (FCR) was identified as the number one unmet need of cancer survivors, with 59% of cancer survivors reporting clinical levels of FCR. Covid-19 has increased anxiety among cancer survivors, including fears that delays in care may impact prognosis and recurrence, which could exacerbate FCR. In this context, it becomes urgent to accelerate the implementation of evidence-based interventions for FCR. Two meta-analyses have established the efficacy of these interventions, however, they have yet to be routinely implemented in clinical settings. We successfully completed a randomized control trial efficacy study of the Fear of Recurrence Therapy (FORT) intervention, a six-week, cognitive-existential group therapy that addresses FCR in women with breast or gynecological cancer. We have developed implementation tools (manuals, training videos, and a training workshop) and are well positioned to implement FORT in clinical settings across Canada.

Methods: We propose a comparative case study to evaluate the process of implementing FORT in 5 different clinical settings across 4 provinces (Alberta, Manitoba, Ontario, and New Foundland and Labrador). Female breast, gynecological, or hematological cancer survivors will be recruited as previous studies suggest that women are significantly more likely to report suffering from FCR than men and that among cancer types, these cancers have some of the highest rates of this fear. They will be offered FORT as an online group intervention (via ZOOM or Teams). We will conduct a process evaluation using the RE-AIM framework, which measures Reach, Efficacy, Adoption, Implementation, and Maintenance outcomes. We will document how many patients were interested in receiving the intervention and completed FORT (Reach), if the intervention was effective at decreasing FCR (Effectiveness), what information the participating sites required to adopt the intervention (Adoption), how many clinicians participated at each site and how many groups they delivered (Adoption), which training, tools and/or support the sites required to implement FORT with high fidelity (Implementation), and what resources were required for the sites to maintain FORT long-term (Maintenance). The primary outcome is sustained offering of FORT groups, defined as two or more groups conducted during the study period, post-training of clinicians, at each participating site. Data will include administrative data, patient questionnaires and interviews, clinic leadership and staff interviews, and cost tracking data.

Hypotheses: The process evaluation will identify key barriers and facilitators likely to be encountered in any effort to implement FORT and propose additional implementation strategies.
Participant inclusion criteria: a) 18 years or older; b) score in the clinical range on the Fear of Cancer Recurrence Inventory Short Form (≥13); c) diagnosis of stage 0-III breast, gynecological, or hematological cancer; and d) completion of primary treatments.

Measurement: FCR will be measured using the Fear of Cancer Recurrence Inventory Short Form, a validated and reliable instrument with a clinical cut-off score. It will be administered before the first session and immediately after the last session. Interviews and qualitative analysis will be guided by the Consolidated Framework for Implementation Research framework.

Planned analyses: Descriptive analysis will be conducted on reach, effectiveness, adoption, fidelity, and maintenance outcomes. Content analysis will be conducted on patient, clinic leadership, and staff interviews with comparisons across settings.

Timeline: This is a 2-year study.

Relevance: This study directly addresses the goal of the Accelerator program: “…to stimulate the implementation of evidence-based interventions” and aims to "enhance the quality of life for people diagnosed with cancer in Canada". Additionally, by including clinical settings in 4 different provinces and offering FORT online, we are "addressing geographical disparities and increasing the number of people in Canada who have equitable access to timely, affordable, and high-quality cancer care".

Dr Anna Santos Salas, University of Alberta

Increasing Access to Palliative Care for Advanced Cancer Patients from Racialized Communities of African and Latin American Descent

Socioeconomic and racial disparities are a serious public health concern in Canada. In the context of cancer, the leading cause of death in Canada, disparities affecting low income and racialized communities exist. These are evident in lower screening rates, lower access to curative treatments, higher rates of late cancer diagnoses and lower survival rates than the general Canadian population. Our knowledge is limited concerning disparities in palliative care affecting racialized communities in Canada, including those of Latin American and African descent. Research in other countries shows that patients of African and Latin American descent have disproportionately high rates of advanced cancer. Canadian studies show cancer disparities affecting these populations. They may experience socioeconomic disparities and delays in access to health care. There is an urgent need to engage members of these populations to reduce disparities in access to cancer and palliative care, and improve their experiences at the end of life. Early palliative care may improve symptoms, quality of life, and survival. In addition, patient navigation may increase access to cancer care in populations affected by health disparities.

Research purpose: We propose the development of an access to palliative care strategy informed by early palliative care and patient navigation to accelerate access to palliative care for advanced cancer patients of African and Latin American descent.

Study aims are: 1) Explore the access to palliative care experiences of advanced cancer patients of Latin American and African descent; 2) Engage advanced cancer patients of African and Latin American descent, their families, and communities to delineate together an access to palliative care strategy; and 3) Develop an implementation plan together with patients, families, and health care providers.

Design and methods: Following community engagement and intersectionality frameworks, we will undertake a community-based participatory research study. Patients will engage as partners in the planning and design of this study.

Research activities: We will form a community advisory group with advanced cancer patients, families, and communities to oversee and guide the development of the access to palliative care strategy.
Settings: Alberta and Ontario.
Sample: 100 participants including advanced cancer patients, families, and community members of African and Latin American descent, and health care providers. To achieve **study aim 1**, we will conduct in-depth interviews with members of the study populations to delineate their experiences of access to palliative care. We will explore the intersections of race, gender, socioeconomic status, language barriers, and other social categorizations to elucidate their role in their access experiences. In parallel, and to accomplish **study aim 2**, we will begin the development of an access to palliative care strategy informed by research findings from study aim 1, team expertise, evidence from the literature, and the guidance of our community partners. Finally, to achieve **study aim 3**, we will engage community partners and health care providers in the development of an implementation plan of the access to palliative care strategy. We will organize a conversation series to examine together the appropriateness, effectiveness, risks, requirements, and convenience of the strategy. We will also outline the steps to implement the strategy through future research. At the end of the study, we will hold a knowledge exchange gathering to share findings with the community. This study responds to Canadian recommendations to tackle unequal access to palliative care, engage communities, and advance equity.

Research Outputs: A strategy to increase access to palliative care for advanced cancer patients from racialized communities. We will also produce peer-reviewed open access papers, conference presentations, and infographics.

Research Outcomes: Increased knowledge of (1) access to palliative care experiences of advanced cancer patients from racialized communities in Canada; 2) elements to increase access to palliative care and reduce inequities in these communities.

Dr Dawn Stacey, University of Ottawa

Symptom practice guides for assessing, triaging and managing patients with cancer symptoms: a knowledge synthesis study

Adults with cancer experience many symptoms impacting their quality of life and some pose a safety issue as symptoms can quickly worsen and become life-threatening. Nurses typically provide remote symptom management for patients at home which is more critical now than ever before due to overcrowded emergency rooms and inpatient units. Moreover, many patients fear entering healthcare facilities since the COVID-19 pandemic.In 2008, we established the pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) team of researchers and knowledge users (KUs) from 8 provinces to improve the quality and consistency of evidence-informed cancer symptom management. COSTaRS practice guides are knowledge translation (KT) tools developed in English and French to guide nurses providing cancer symptom management on the telephone. The 17 practice guides are informed by evidence from clinical practice guidelines (using systematic review methods) and written in plain language. Literature was systematically reviewed in 2012, 2015, and 2018 to update the practice guides. There is an urgent need to update given the impact of COVID-19 on symptom triage decisions as well as emerging evidence on immunotherapy symptom care.

Since 2012, we concurrently conducted five studies to determine best practices for implementing these guides in clinical practice. In these studies, we developed an online training module, workshop materials, video demonstrating their use, and pocket guide versions. Findings revealed that nurses provided higher quality symptom management when COSTaRS guides were used. Since 2016, COSTaRS practice guides have become standard practice for nurses providing telephone services within cancer programs in Ontario and are at various stages of implementation in other provinces (e.g., Alberta, Nova Scotia, Quebec), and the USA. They are integrated into the EPIC electronic health record in Ottawa and Alberta. Researchers in Beijing, China are culturally adapting them and integrating evidence on traditional Chinese medicines.

The **aims** for our proposed research: I) conduct knowledge syntheses on assessment, triage, and management of cancer-related symptoms and update the 17 practice guides; and II) evaluate the project's integrated knowledge translation (IKT) approach with KUs on the research team.

Methods

Aim I: conduct 18 systematic reviews (including COVID-19) to update 17 practice guides following Cochrane methods. We will conduct extensive searches in multiple databases (e.g., MEDLINE, CINAHL) and hand search known developers of oncology clinical practice guidelines. Eligible citations are clinical practice guidelines and systematic reviews for cancer symptom management. Two reviewers will independently screen citations for inclusion, extract data, and appraise quality using AGREE II and AMSTAR2. We will extract data on symptom management evidence including any unique data for patient characteristics (e.g., race, rural).

Aim II: evaluate the IKT approach used by the team with a survey at baseline, 6 months and end of study using the Partnership Indicator (PEIRS22) tool and questions exploring their experience on the team.

At the end of the studythe revised practice guides will be disseminated on the websites for COSTaRS research and the Canadian Association of Nurses in Oncology (CANO/ACIO) and by formatting for oncology nurses (pocket guides, use on smart phones/tablets), updating EPIC with new evidence, and integrating into COSTaRS training materials. A policy brief will be created for all provincial cancer agencies and administrators of hospital providing ambulatory cancer services.

Relevance to people affected by cancer: Having updated evidence-informed decision tools for symptom management is essential for ensuring safe, consistent, and effective symptom management for patients with cancer. Our proposal fits with the Canadian Cancer Society's Strategic Plan for *Information & Support* to improve quality cancer information that can support people with cancer and their families, and Research Goals of having *equitable access to timely high quality cancer care* and *enhancing quality of life* through cancer symptom management.

Dr Robin Urquhart, Dalhousie University

Adapting and implementing cancer patient pathways in Nova Scotia: an evidence-based and inclusive approach

Background: Nova Scotia has amongst the highest cancer incidence and mortality rates in Canada. There are likely many reasons for this, including genetics, high rates of lifestyle and environmental risk factors, and challenges accessing timely diagnosis and treatment. Despite well-organized cancer screening programs and initiatives, ~85-90% of all cancers are diagnosed as a result of symptomatic presentation. Primary care is often the first point of contact for patients with potential cancer symptoms, acting as gatekeepers to specialist referral and care. One challenge for primary care providers is that cancer symptoms can be difficult to recognize, which can result in delayed referral and diagnosis. While half of patients present with urgent alarm symptoms clearly suggesting cancer, 20% present with non-specific but serious symptoms and a further 30% present with non-urgent, vague symptoms.One solution to this challenge is the implementation of diagnostic pathways. Diagnostic pathways are evidence-based, standardized pathways with clearly defined events, sequences, and timeframes to enable timely triage, referral, and diagnosis. Denmark has introduced a three-legged strategy for faster diagnosis, with three different pathways based on a person's presenting symptoms. These Cancer Patient Pathways (CPPs) are coordinated between primary and specialist care, and have improved relative survival rates in Denmark. For example, 3-year relative survival increased from 11% to 20% in lung cancer patients and 58% to 75% in gynecological cancer patients after introduction of the pathways. Moreover, the median wait time for a cancer diagnosis (all cancers combined) decreased from 49 to 35 days. As a result of this evidence, the Canadian Partnership Against Cancer has included the Danish CPPs as an exemplar model of care in its newly released Models of Care Toolkit. A coordinated approach to referral and early diagnosis is **urgently needed** in Nova Scotia to reduce delays and improve patient outcomes.

Aim: The overarching aim of this study is to implement and test evidence-based CCPs in Nova Scotia. The specific objectives are to:

1. Adapt the Danish CCPs for Nova Scotia, accounting for local resources and constraints;
2. Select and/or develop implementation strategies to support implementation; and
3. Evaluate the implementation of these pathways in Nova Scotia.

Methods: Underpinned by implementation science approaches and the Consolidated Framework for Implementation Research, this sequential mixed methods study will be conducted in two phases. Phase 1 will employ the nominal group technique (NGT) with primary care and oncology providers in Nova Scotia to adapt and optimize CPPs for Nova Scotia (*Objective 1*) and (2) focus groups with primary care and oncology providers and patients/families to assess barriers and facilitators to CPP implementation as well as readiness for implementation, permitting the selection of appropriate implementation strategies (*Objective 2*). Phase 2 will entail a mixed method implementation study of the adapted CCPs (*Objective 3*). CPPs will be implemented, alongside selected implementation strategies, in Nova Scotia. Each pathway will have clear criteria to assist primary care providers in categorizing symptoms and provide clear referral pathways, including expedited referrals, for those with specific symptoms. Implementation outcomes (including acceptability, feasibility, and fidelity) and provider/patient experience will be assessed using both survey and qualitative methods.

Team & impact: Improving the diagnostic process, and achieving more timely diagnoses, are priorities of the Nova Scotia Health Cancer Care Program's newly developed Cancer Control Strategy. Comprised of academic researchers, clinician scientists, leaders of the Nova Scotia Cancer Care Program, heads/chiefs of relevant clinical divisions and departments, people with lived experience, and trainees, our team has the expertise, capacity, and influence to adapt and implement coordinated approaches to diagnosis in Nova Scotia. This will lead to more timely cancer diagnoses and improved clinical outcomes.

Dr Lin Yang, University of Calgary

Development, implementation, and evaluation of a cancer Prehabilitation program to Enhance knowledge, improve mentAl health and Keep up physical function: the PEAK program

PROBLEM: Prehabilitation improves post-surgery recovery and health outcomes leading to cost reduction. To date, there is no standard prehabilitation model for cancer treatments. During our ongoing surgical prehabilitation trial (PEAK-RP), we identified significant unmet needs in the prostate cancer population, including the lack of a preparation program before surgery and that they desire educational information on treatment side-effects. Participants in the intervention arm indicated significant benefit from prehabilitation and a preference for this type of program offered through the Calgary Prostate Cancer Centre (PCC). Importantly, during recruitment, many non-surgical prostate cancer patients were interested in prehabilitation, but we were not able to enroll them.

Objectives: The overall aim of the project is to co-develop a logic model with key stakeholders that can be used to guide the design, implementation, and evaluation of cancer prehabilitation programs. Specific objectives are 1) To develop a logic model for cancer prehabilitation programs; 2) To design and produce the prehabilitation program (the PEAK program) for the Calgary PCC; 3) To create an adoption, implementation, and evaluation plan of the PEAK program. We aim to scale up prehabilitation programs across settings to enhance cancer care equity.

METHODS: We will use Intervention Mapping, a widely accepted systematic method for developing theory- and evidence-based interventions, as the study framework to conduct the following six steps.
Step 1: needs assessment, literature review, and qualitative interviews. We included all relevant stakeholders as a planning group and developed an initial logic model of PEAK programs based on our expertise and findings from our PIE cohort and PEAK-RP trial. We will conduct a review of review to map the evidence level of prehabilitation interventions for common cancer treatment modalities. Next, we will conduct qualitative reviews to understand the barriers and facilitators (readiness) of patients (adaptors) and the Calgary PCC team (implementors) to the PEAK program implementation.
Step 2: identify intervention outcomes, performance objectives, and change objectives. This step will focus on the evidence-based intervention identified in step 1 as key components of a cancer prehabilitation program. We will analyze qualitative data in step 1 following the Theoretical Domain of Framework (TDF) to identify the stakeholders who may benefit from behaviour change and the determinants of the behaviour change.The outcome of Steps 1 and 2 is a refined logic model for the cancer prehabilitation program. We will also be able to identify barriers for patients (adaptors) and Calgary PCC (implementors) to uptake the PEAK program
Step 3: select theory-based methods and practical applications. We will map the stakeholder-specific determinants of behaviour change (change objectives) in each domain of TDF to the Behaviour Change Technique taxonomy to identify required behaviour change intervention content.
Step 4: produce PEAK program components and materials. Following step 3, a prehabilitation program structure will be developed indicating the intervention content relevant to all stakeholders. Step 4 will be done through consensus-building discussions by the planning group.The outcome of Steps 3 and 4 is an evidence-based prehabilitation program, the PEAK program, and; 2)
toolkits targeting patients and Calgary PCC's readiness for the PEAK implementation.
Steps 5 and 6: create an adoption, implementation, and evaluation plan. These two steps are the production phase, during which a facilitator manual, facilitator training materials, the prehabilitation program protocol, and outcome monitoring and evaluation plan will be developed.

RELEVANCE: Our vision is not to wait, apply what we already know, and generate what needs to be done to accelerate the implementation through rapid-cycle evaluation studies. We will map the logic model of cancer prehabilitation, identify prehabilitation components that are ready to be implemented and identify gaps that require evidence generation.