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Education Update

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The past year saw bispecific antibody therapy being rolled out across British Columbia. This novel class of immunotherapy has shown great potential in cancer management. However, it does come with possible toxicities that require a multidisciplinary team to collaboratively monitor and proactively manage.[1] To this end, in collaboration with UBC Continuing Professional Development, BC Cancer's Primary Care Program hosted an accredited webinar on September 12th entitled 'Bispecific Antibody Therapy in Cancer Care: What Acute Care Physicians Need to Know for Safe Administration.' A recording of this

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BEST PRACTICE CANCER CARE GEMS

Gender-affirming, Anatomy-based cancer screening for transgender, two-spirit, and non-binary people

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Cancer screening programs seek to identify cancer before symptoms appear, allowing for earlier treatment that has a higher likelihood of success.[1] However, gender-based disparities exist, with transgender, Two-Spirit, and non-binary (TTNB) people accessing screening less frequently than cisgender people.[2-4] This may contribute to delayed diagnoses and increased cancer mortality for TTNB people.[3,5,6] There are multiple factors that contribute to this difference in screening rates. TTNB people may avoid cancer screening due to health care anxiety or gender incongruence/dysphoria.[3] They may wait for providers to bring up screening options, not know what screening they are eligible for, or have

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While links to all our educational offerings can be found on our website FPON.ca, to improve our ability to communicate with community providers and healthcare partners about the latest Family Practice Oncology Network (FPON) news, educational updates, practice gems and other BC Cancer Primary Care communications including information on the electronic publishing of the twice-yearly Journal, please scan the QR code to sign up for our communications database.

Questions? Please contact us at fpon@bccancer.bc.ca

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difficulty requesting screening for anatomy that is related to gender incongruence/dysphoria.[4] Clinicians may miss screening opportunities due to gender-based screening guidelines or because they are unsure of what screening TTNB people need.[2,4] Rather than relying on gender-based guidelines that often exclude TTNB people, taking gender-affirming and anatomy-based approaches to care can address gender inequities in cancer screening practices.

Anatomical and Hormone Medication Inventories

An inclusive approach to cancer screening is based on anatomical and hormone medication inventories rather than gender.[7] An anatomical inventory records what organs are present and if there have been any surgical modifications, while a hormone medication inventory lists current and historical hormone use.[8] Together, these inventories provide the information needed to determine what screening tests to offer to TTNB patients (see Table 1). When taking an anatomical inventory, using a patient's preferred terms or gender-neutral language is recommended (see Table 2). Offering screening based on anatomy is a key part of equitable practice, however, it must be delivered with a gender-affirming care model to create safer clinical spaces for TTNB people.

Gender-Affirming Care

Gender-affirming care supports people to live in their self-determined gender.[9] It is relational, trauma- and violence- informed, and involves treating all patients with respect, kindness, and compassion, while recognizing that TTNB people experience personal and structural discrimination that impacts their health and wellbeing.[7,10] Working in relationship with TTNB patients, clinicians can integrate harm reduction and informed choice, center the client's lived/living experience, and use strengths-based approaches to identify goals of care.[11] Within the context of cancer screening, informed choice requires clinicians to discuss what is known and unknown regarding cancer screening and cancer rates for TTNB people (see Table 3 and Table 4).

Clinicians should make every effort to ensure TTNB patients receive gender-affirming care during each health care interaction. For in-office screening this may include booking extra time, so the procedure does not need to be rushed. Patients should know why the test or screen is indicated, the steps of the procedure, and that they can withdraw consent at any time resulting in the test being stopped. For screening done in other facilities, it may be beneficial for clinicians to discuss the gendered nature of many cancer screening programs with

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Table 1. Cancer Screening Based on Anatomy

This table provides an overview of screening options and recommendations. Screening guidelines vary by location and should be individualized for each patient. **For informed choice considerations, including screening selection and risk factors, see tables 3 and 4.**

Chest Tissue	
No history of chest surgery	Screen according to local guidelines.
Chest reduction surgery	Screening mammogram may or may not be feasible, depending on amount of tissue remaining. A chest ultrasound is an alternative screening option.
Complete chest construction	Screening mammogram not feasible. A chest ultrasound is an alternative screening option.
Breast Tissue	
Has breast implants	Ineligible for screening mammograms in BC.[12] Diagnostic mammograms can be ordered by primary care providers to screen clients with breast implants.
Taking estrogen: Less than 5 years total	Discuss screening based on personal and family risk factors.
Taking estrogen: At least 5 years total	Screen according to local guidelines.
Cervix	
Has a cervix	Screen according to local guidelines.
No cervix: Surgically removed (complete hysterectomy)	Screening not required if no history of abnormal cervical cytology. If recent history of abnormal cytology, follow local guidelines for follow-up screening.
No cervix: Vaginoplasty	Not eligible for HPV screening through BC cervical screening program.[1]
Prostate screening	The Canadian Taskforce on Preventative Health Care does not recommend routine screening for prostate cancer.[13]
Colon screening	Screen according to local guidelines.
Lung screening	Screen according to local guidelines.

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the patient and create a plan for how this can be navigated. With patient consent, clinicians can provide the name, pronouns, and anatomical terms the patient uses on referral forms. Additionally, an advance call to the screening facility can provide an opportunity to facilitate gender-affirming care through reviewing relevant gender-related information (e.g., name, pronouns and honorific used, surgical history) with facility staff. Clinicians should be open to feedback about screening experiences and be prepared to advocate for gender-affirming care for their patients.

Take Away Message

Gender-affirming, anatomy-based cancer screening has the potential to improve screening rates and create systems of care that are safer and more inclusive for TTNB people.

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Table 2. Gender Neutral Anatomy Terms. Adapted from Trans Care BC.[14]

These terms are examples of inclusive language in the clinical setting. This list is not intended to be exhaustive and will change over time. **Care should be individualized by using a patient's preferred terms for their anatomy.**

Gender Neutral Terms	Gendered Terms
Upper body	Breast or chest
Erectile tissue / External genitals / Genitals	Penis
Erectile tissue	Clitoris
External genital area	Vulva
Opening of the genitals	Introitus / Opening of the vagina
Internal genitals / Genitals	Vagina
External gonads	Testes / Testicles
Internal gonads	Ovaries
Internal reproductive organs	Female reproductive organs
Sexual health screening / Internal exam / Cervical screening	Pelvic exam / Well woman exam
Monthly bleeding	Period / Menses

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webinar will be available for viewing by anyone who was not able to join us. Please email fpon@bccancer.bc.ca to access.

Bispecific antibody therapy is also relevant to general practitioners in oncology (GPOs), and this session will be covered during this year's annual GPO Case Study Day at the BC Cancer Summit. Other updates at this hybrid in-person and virtual event will include '6 W's of Biomarker Testing in Metastatic Colorectal, Metastatic Non-Small Cell Lung and Metastatic Breast Cancer', 'CAR T-Cell Therapy,' 'Untangling Common Electrolyte Abnormalities in Cancer Care,' 'Management of High-Risk Non-Metastatic Prostate Cancer for the Radiation GPO,' and 'Managing Skin Toxicities of Systemic Therapy.' GPOs and BC Cancer nurse practitioners (NPs) can register for GPO Case Study Day at bccancersummit.ca.

British Columbia continues to hire physicians and nurse practitioners, among other health care staff, to help meet the needs of patients with cancer around the province. BC Cancer Primary Care Program's Family Practice Oncology Network (FPON) continues providing its GPO Education Program, including the virtual 4-week half-day Clinical Practitioner in Oncology Education Introductory Module. The fall intake saw BC's newly hired GPOs, BC Cancer NPs and clinical nurse specialists attend. University of British Columbia's palliative medicine residents, GPOs and NPs from Nova Scotia were also in attendance. With over 67 credit hours of lectures to choose from, currently practicing GPOs attended select sessions as a knowledge update. More information about GPO Education and GPO career opportunities can be found at fpon.ca

FPON Webinars for Primary Care Providers on various cancer care-related topics remain a staple in the educational lineup. The last several iterations included a skin cancer 2-part series on 'Skin Cancer Prevention and Early Detection' and 'Advanced Melanoma: Current Management and Follow-Up Care.' With healthcare providers outside the BC Cancer Hereditary Cancer Program now able to order genetic testing in patients who meet specific criteria, FPON hosted 'Hereditary Cancer Update: Mainstreamed Testing – When to Test, When to Refer' September 19. Registration for October's webcast on 'Fertility Issues in Cancer Management' is now open and available.

Webinar/Rounds

FPON Webinar – Fertility Issues in Cancer Management

Register

Recordings of previous webinars, associated resources, and registration for future webinars can be found at fpon.ca.

FPON's Annual Education Day for Primary Care Providers working group met earlier this month to choose topics most relevant to primary care. FPON is currently working on accreditation for this April 5th, 2025 event. Please scan the FPON QR code found in this edition of the journal to receive registration updates on this and other FPON-hosted events.

As always, if you have feedback or suggestions for future educational initiatives, please email FPON's medical education lead at sian.shuel@bccancer.bc.ca

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Table 3. Considerations for Informed Choice: Breast and Chest Exams and Screening

Chest and breast exams and screening

- TTNB people may experience self- and clinician-chest/breast exams as gender-affirming or may feel they contribute to gender incongruence/dysphoria.
- Gender-affirming practices (chest binding, using fillers), medical treatments (testosterone, estrogen, progesterone), and surgical procedures (chest reduction or construction, breast implants) can change how the chest or breasts feel and look. These changes may include decreased elasticity, decreased or increased volume, new scar tissue, and/or a change in the density of the tissue.
- Routine clinician-chest/breast exams to screen for cancer are not recommended due to the risk of false positives and over-detection.[7]
- When regularly performing self-exams, people become familiar with their chest or breast tissue and are more likely to recognize when something has changed and needs further assessment.
- Chest/breast screening procedures (e.g., mammography) may be experienced as gender-affirming or contribute to gender incongruence/dysphoria.

TTNB people who have had chest reduction or construction (bilateral mastectomy) surgery

- A complete chest construction does not remove all breast tissue and risk of breast cancer after surgery is unknown.[7]
- Mammograms after chest reduction may be possible but there is no clear guidance on how much tissue is required to complete a mammogram.
- There is no reliable evidence to guide screening after chest construction surgery.[4]
- Mammograms may be located in clinical environments (e.g., women's health clinics) that contribute to gender dysphoria/incongruence for TTNB people who have had chest reduction or construction.
- Ultrasounds are an alternative screening option that can be used if a mammogram is not feasible. Ultrasounds may contribute to unnecessary biopsies due to over-detection.[15]
- BC Cancer does not recommend using magnetic resonance imaging (MRI) for routine screening of the general population. MRI may be indicated for follow up imaging or for higher risk individuals.[16]
- Informed choice discussions should consider what is known about screening options, the unknown rates of cancer after chest construction, and relevant personal and family history.* [4,7]

TTNB people who take estrogen

- A large retrospective study found that TTNB people who take estrogen have a breast cancer rate higher than cisgender men but lower than cisgender women.[5]
- The recommendation to begin screening after taking estrogen for five years is based on expert opinion and may not be applicable to all patients.[7]
- Use of breast fillers, breast implants, and dense breast tissue may contribute to screening difficulties for TTNB people who take estrogen, contributing to both false negatives and false positives.[4,7] False positives may lead to unnecessary invasive testing, while false negatives may lead to false reassurance and delayed cancer diagnosis.
- Mammograms in BC report on breast density. When tissue density is high, ultrasound can be offered to augment screening.[15]
- Informed choice discussions should consider length of estrogen use, dosing, age started, current age, and relevant personal and family history.* [7]

* Risk factors considered for screening in BC include a strong family history of breast cancer, a history of thoracic radiation between the age of 10 to 30, and being a BRCA1, BRAC2, or other pathogenic gene variant carrier.[1] Other risk factors associated with higher rates of breast cancer include being assigned female at birth, advanced age, later age at menopause, use of estrogen and progesterone (when used for contraception, hormone replacement after menopause, and for gender-affirmation), and lifestyle factors.[5,17] Lifestyle factors include obesity, alcohol consumption, smoking, diet, air pollution, night work, socioeconomic status, and diabetes.[17]

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Table 4. Considerations for Informed Choice: Cervical, and Prostate Screening

Human papillomavirus (HPV)

- HPV is linked with cervical, anal, genital, and oral cancers. The HPV9 vaccine is recommended for all school aged children in BC to decrease the rates of cervical and anal cancer once they become sexually active. TTNB people who have not received the vaccine can access it for free until the age of 26.[18]
- Regardless of vaccination status, regular cervical cancer screening is recommended.[1,18]

TTNB people with cervixes

- HPV swabs of the internal genitals are now standard of care for cervical cancer screening in BC. They can be done by a patient at home or by a provider in a clinic.[1]
- TTNB people are more likely to access cancer screening if offered as a self-swab for HPV.[7]
- If an HPV swab comes back positive, further testing (cytology or colposcopy) will be recommended.[1]
- TTNB people may choose to engage with certain screening options and decline others (e.g., doing an HPV swab but not wanting further testing if positive). Prior to testing, review possible outcomes of the testing and further testing that may be recommended. Consider the benefits and risks of testing options, and support patients in the decisions that they make.
- Taking testosterone can cause atrophy to the internal genitals. This can lead to discomfort during internal exams and inconclusive cervical cytology results.[7] Using internal estrogen for five to seven days before an exam may increase patient comfort and decrease the likelihood of an inconclusive result.[4] Patients should be aware that aspects of the products (e.g., names) may not be affirming.

TTNB people who have had vaginoplasty surgery

- There are currently no known benefits to screening for HPV in asymptomatic individuals who have had a vaginoplasty.
- Routine gynecological care should be offered to people who have had a vaginoplasty. Evaluate new concerns in discussion with the care team, which may include a surgical team, plastic surgery, or gynecology.[7]

Prostate screening

- TTNB people who take estrogen (with or without androgen blockers) appear to have lower rates of prostate cancer than cisgender men.[6]
- TTNB people who have had a vaginoplasty retain their prostate. Any evaluation of urinary or gynecological symptoms should include an assessment of the prostate, which can be palpated through the lower aspect of the anterior vaginal wall.[7]

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Nicotine Replacement Therapy (NRT) at point of care – A crucial step to helping cancer patients quit smoking

By Dr. Renelle Myers, Cheryl Colby and Diana Stepczuk, communications specialist for PHSA

Smoking cessation support is a critical component of first-line cancer treatment. Quitting smoking increases the effectiveness of people's cancer treatment and several studies have demonstrated a marked increase in survival (up to 40%) with cessation at the time of diagnosis.[1,2,3] Smoking cessation programs aimed at the first visit are important for treatment success, including systemic therapy, radiation therapy and surgery.[4,5]

"The initiation of the NRT program has given nurses a tool to help improve the outcome of cancer treatment. It has also given patients the benefit of being able to leave our building with nicotine replacement in hand," said Megan Boudreau, registered nurse at BC Cancer – Prince George. "With some time, I can see this program really making a difference at BC Cancer."

Nicotine induces polycyclic aromatic hydrocarbons (PAHs), products of incomplete combustion,[6] PAHs are potent inducers of hepatic enzymes.[7] Many drugs are substrates for hepatic CYP1A2, and their metabolism can be induced in smokers, resulting in a clinically significant decrease in pharmacologic effects.[8,9] Thus, smokers may require higher doses of drugs that are CYP1A2 substrates.[10] It is important to recognize that these pharmacokinetic drug interactions are caused by the PAHs in tobacco smoke, not the nicotine, therefore nicotine replacement will not interfere with drug levels.

Radiation treatment is more effective, and less side effects are experienced if the level of oxygen in the body is normal.[10] When a patient smokes, the level of oxygen in their blood drops, increasing side effects and decreasing effectiveness of treatment. Smoking has significant effect on the development of postoperative complications including infection, and morbidity and mortality.[11,12,13] Cessation four weeks prior to surgery enables the best outcomes.[11]

All cancer patients require the support and tools for smoking cessation at the time of diagnosis, as an integral part of their treatment. The BC Cancer smoking cessation program aims to identify current tobacco users and provide a quit plan and quit resources at the first visit. This nurse led program was launched in 2019 at all six sites across the province.

In October 2023, BC Cancer launched a Nicotine Replacement Therapy (NRT) Pilot Program in Prince George to assist patients in quitting smoking during cancer treatment. The pilot program, which was designed to reduce barriers unique to patients living in remote and rural communities, such as access to pharmacies, provides patients with essential support to quit smoking.

The use of smoking cessation medications, including nicotine replacement therapy (NRT), varenicline and bupropion, can more than double quit rates. Combining a short-acting NRT (gum, inhaler, lozenges, spray) with a long-lasting NRT (patch) is more effective than when any type is used alone.[1]

Immediate availability of NRT at point of care can significantly enhance a patient's ability to quit smoking. As part of this pilot program, nurses provide a one-week supply of NRT patches and gum during the first clinic visit, and remote patients receive their supplies via courier, ensuring no one is left without support due to geographic limitations. So far, packages have been sent over a total distance of 4,000 kilometers to reach remote patients.

In addition, patients are encouraged to go to their local pharmacy to access the free Provincial BC Smoking Cessation Program through PharmaCare. Their local pharmacist can help them get set up and sign the declaration for access. This program allows patients to access 12 weeks of free NRT every year for up to three years. The First Nation Health Authority also supplements additional NRT through the First Nation Health Benefits.

Since its launch, the NRT pilot program has seen 33 participants between October 2023 - June 2024, with significant engagement in follow-up support systems. Out of these participants, 22 have been referred to a Quitline for further assistance: 16 to QuitNow and six to Talk Tobacco, a culturally tailored service for Indigenous patients. The program also involves the centre's Indigenous Patient Navigator (IPN) to support the team in delivering comprehensive and culturally safe support.

Looking ahead, BC Cancer plans to expand the NRT program to other centres, based on collected data and feedback from staff

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"Building upon the BC Cancer Smoking Cessation program to incorporate point of care Nicotine Replacement Therapy is a key example of innovation that supports improved patient outcomes", said Megan Crosby, senior practice leader, Nursing at BC Cancer – Prince George.

The program's successes to date are attributed to the dedicated efforts of a collaborative team. Crosby has been instrumental in helping to ensure the success of the program and has helped to implement NIA tools, remote patient mailing and more. She also acknowledges the significant contributions from pharmacy, clinical informatics, and administrative colleagues in creating a decision support tool that enables nurses to assess tobacco dependence, order appropriate NRT, and dispense it to patients.

Pictured from left to right:
Vanessa New, registered nurse from Haida Gwaii, completing a systemic therapy practicum in Prince George;
Tish Trevelyan, licensed nurse practitioner, Team-Based Care;
River Goerz, registered nurse, Team-Based Care;
Melissa Foisy, registered nurse, Systemic Therapy;
Felci Vedulla, clinical nurse leader, Ambulatory Care Unit;
and Brighdie Davey, clinical nurse leader, Systemic Therapy.

They are part of the nursing staff who have been implementing the NRT pilot program at BC Cancer – Prince George.

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and patients. This gradual expansion aims to ensure the program's success while maintaining its effectiveness. Ongoing collaborations with the Indigenous Patient Navigator and other stakeholders are set to enhance the program further, ensuring it meets the diverse needs of all patients.

The NRT pilot program's early successes and the committed teamwork behind it underscore BC Cancer's dedication to improving patient outcomes and supporting smoking cessation as a critical component of cancer treatment. As the program evolves, it holds promise for broader implementation and greater impact across the province.

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Explore the future of cancer care: The Bone Metastases and Exercise (BME) Hub

By Dr. Sarah Neil-Sztramko and Dr. Kristin Campbell, Cancer Exercise & Physiotherapy Lab Medicine, Deptartment of Physical Therapy, The University of British Columbia

Dr. Sarah Neil-Sztramko Dr. Kristin Campbell

We are excited to announce the launch of the Bone Metastases and Exercise (BME) Hub, a pioneering platform dedicated to transforming the management of bone metastases through tailored exercise recommendations. Developed collaboratively by patients, healthcare practitioners, and exercise professionals, the BME Hub is your comprehensive resource for integrating exercise into cancer care effectively and safely.

Origin and Purpose

In response to the 2022 "Exercise Recommendations for People with Bone Metastases" by the International Bone Metastases Exercise Working Group, the BME Hub was conceptualized to address the low uptake of these critical guidelines. Through a dynamic co-design process that included direct contributions from those most affected by bone metastases, the BME Hub not only adheres to these guidelines but also reflects the real-world challenges and solutions encountered in cancer care.

What the BME Hub Offers

The BME Hub serves a dual audience: patients living with bone metastases and the professionals who support them. For patients, the hub offers a variety of educational resources, including easy-to-understand handouts, engaging webinars, and access to a network of exercise professionals skilled in oncology care. These resources aim to empower patients with knowledge and tools to incorporate beneficial exercise routines into their treatment plans under professional guidance.

For healthcare and exercise professionals, the BME Hub provides specialized tools designed to foster safe and effective exercise prescriptions. These tools help bridge the gap between medical treatment and physical rehabilitation, ensuring that exercise plans are not only effective but also tailored to the individual needs and medical circumstances of each patient. Moreover, the hub facilitates enhanced communication between cancer care teams and exercise professionals, which is crucial for coordinating care and maintaining patient privacy.

Continuous Education and Future Developments

Recognizing the importance of ongoing education in healthcare, the BME Hub is set to expand its offerings with professional development opportunities slated for rollout in Fall 2024. These initiatives will help healthcare providers and exercise professionals stay at the forefront of the latest developments and research in exercise recommendations for bone metastases.

Impact and Vision

The BME Hub is more than just a resource—it's a movement to integrate exercise as a standard part of oncology care. By merging rigorous research with practical, user-friendly solutions, the BME Hub aims to significantly enhance the quality of life and health outcomes for individuals dealing with bone metastases. Our vision is that through widespread adoption and use of the BME Hub, exercise will become a cornerstone of cancer care globally, helping patients not just survive but thrive.

Join Us in this Ground-breaking Journey

We invite all stakeholders in the cancer care community to explore the BME Hub, utilize its resources, and contribute to its evolution. Whether you are a patient seeking to understand more about how exercise can benefit your treatment plan, a healthcare

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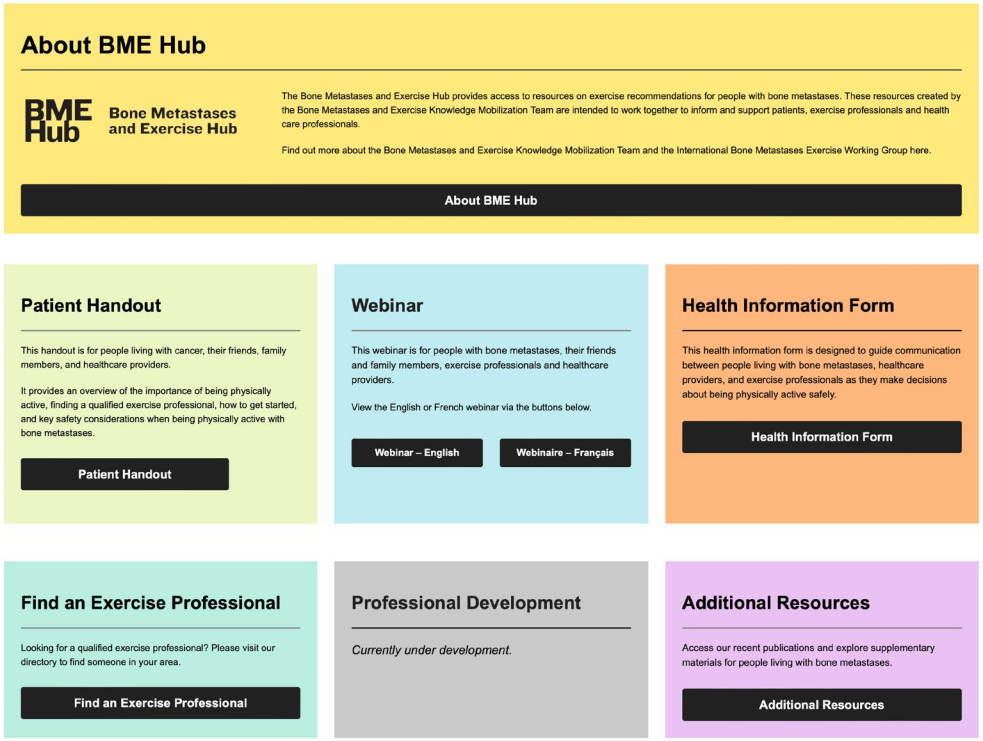

Overview of bone health in people with cancer

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Introduction

Breast and prostate cancers frequently metastasize to bone, with approximately 70% of advanced breast cancer and 85% of advanced prostate cancer cases developing bone metastases. These metastases predominantly affect the axial skeleton and can lead to skeletal-related events (SREs) such as pathological fractures, radiotherapy to bone, surgery to bone, spinal cord compression, and hypercalcemia.

Dr. Akshay Jain

Initial investigations

While initiating assessment for bone health, consider ordering Serum Calcium, PTH, 25 OH vitamin D and TSH if not done in the recent past. Please note that a bone mineral density (BMD) test not indicated for mCRPC/ mHSPC with bone metastases or Breast cancer with bone metastases. If BMD testing is done for assessment of bone health for cancers not metastasized to the bone, it is vital that surveillance BMD testing should always be done at the same centre as previous studies.

Skeletal related events

To manage bone metastases and prevent SREs, treatment options include bisphosphonates, denosumab, and appropriate use of radiotherapy. These interventions are crucial in reducing the risk of SREs and improving patient outcomes. While utilizing these, it is important to monitor for hypocalcemia as well as kidney function status.

Cancer Treatment-Induced Bone Loss (CTIBL)

Cancer treatments like androgen deprivation therapy (ADT) in prostate cancer and aromatase inhibitors in breast cancer contribute to significant bone loss, heightening the risk of osteoporosis and fractures. The guidelines recommend monitoring BMD to assess the risk of bone loss, especially in patients undergoing ADT or treatment with aromatase inhibitors. Regular BMD assessments are essential for identifying patients at high risk for fractures.

Pharmacological interventions such as bisphosphonates and denosumab are suggested to counteract CTIBL. These agents are effective in increasing BMD and reducing fracture risk. The choice of agent should be individualized, considering the extent of bone loss, risk of SREs, and potential side effects.

Lifestyle Modifications, Calcium and Vitamin D

Lifestyle modifications also play a vital role in managing bone health. Patients should be encouraged to engage in weight-bearing exercises, avoid smoking, and limit alcohol intake to strengthen bones and reduce the risk of osteoporosis.

Calcium and vitamin D are fundamental in maintaining bone health. The guidelines recommend supplementation with calcium (500-1000 mg/day) and vitamin D (800-2000 IU/day) for patients with breast or prostate cancer, particularly those receiving bone-targeted therapies or treatments known to induce bone loss. Calcium citrate can be favored over calcium carbonate in people taking proton pump inhibitor therapy. Dietary calcium is always more favorable than supplementation but many may not be able to achieve the recommended intake via diet alone.

Safety considerations

It is also important to evaluate the risk of osteonecrosis of the jaw and hypocalcemia, especially in patients receiving bone-modifying agents. Family physicians should be aware of these risks and manage them proactively.

Referral to specialist

Consider referral to a specialist in bone health in people with 1 or more of the following criteria:

- Multiple metastases to the bones
- On steroid therapy for ≥ 6 months,
- On aromatase inhibitors with a T-score on BMD less than -1.5
- Those ≥ 65 years on androgen deprivation therapy
- Known history of osteoporosis/ fragility fracture

Conclusion

In conclusion, primary care providers have a critical role in the early detection and management of bone health issues in patients with breast and prostate cancer. By adhering to the European Society for Medical Oncology (ESMO) guidelines, they can help mitigate the risk of SREs and maintain the quality of life for these patients. Incorporating calcium and vitamin D supplementation into the care plan is essential for the overall management of bone health in this patient population.

This summary is based on the ESMO Clinical Practice Guidelines as of the last update in 2021 and should be used in conjunction with the most current clinical data and guidelines available. HCPs should refer to the full guidelines for a more detailed understanding and to tailor the recommendations to individual patient needs.

The Bone Metastases and Exercise (BME) Hub continued from page 8

provider looking to prescribe safe exercise routines, or an exercise professional aiming to specialize in oncology care, the BME Hub has something to offer.

Visit us today at https://cancerexercise.med.ubc.ca/bmehub/ to learn more about how the BME Hub can assist you or your organization in making exercise an integral part of cancer care. Together, we can make a difference in the lives of those affected by bone metastases.

Stay Tuned

Keep your eyes peeled for when our Professional development materials go live on the BME Hub to further strengthen your knowledge on exercise oncology.

Join us in redefining cancer care for the better—visit the BME Hub today.

Integrating anal cancer screening into primary care

By Dr. Troy Grennan, Provincial HIV/STI Program, BC Centre for Disease Control, and Infectious Diseases, University of British Columbia

Dr. Troy Grennan

Nearly all squamous cell carcinomas (SCC) of the anal canal are caused by the human papillomavirus (HPV).[1] Though rare in the general population with rates of 1-2 per 100,000, anal SCC rates are increasing, are more common in older age, and disproportionately impact certain key populations. Examples of such populations and their associated anal cancer rates include: men who have sex with men (MSM) living with HIV (85 per 100,000), females living with HIV (22 per 100,000),[2] and individuals with vulvar pre-cancer (42 per 100,000). Until recently, no guidelines for anal cancer screening existed; additionally, there are currently no established anal cancer screening programs in most jurisdictions, including here in Canada.

What is anal cancer screening?

Anal cancer screening generally involves a combination approach, usually made up of digital anorectal examination (DARE), anal cytology (anal Pap test), and HPV testing,[3] with the purpose of identifying screening-detectable pre-cancerous lesions (i.e. high-grade squamous intraepithelial lesions [HSIL]). Treatment of HSIL in those at highest risk for anal cancer has recently been shown to prevent malignant progression.[4] Abnormal results from screening investigations would then be followed up with high-resolution anoscopy (HRA),[5] whereby a microscope is used to visualize the tissue of the anal canal for abnormalities (analogous to cervical colposcopy); biopsies and ablation of pre-cancers are also performed using HRA. In British Columbia (BC), HPV testing is not available for anal cancer screening and resultantly, anal cytology is the primary screening test.

First anal cancer screening guidelines get published

In early 2024, the first evidence-based consensus guidelines for anal cancer screening were published.[6] Developed by the International Anal Neoplasia Society (IANS), these guidelines outline the populations that need to be prioritized for screening, suggested screening frequency, along with the recommended screening modalities (Table 1). The authors identified two risk categories based on incidence rates: category A includes those at highest risk (i.e. incidence greater than 10 times that of the US general population), in whom clear guidance for yearly screening is indicated; and category B (i.e. those with incidence less than 10 times that of the general population), in whom shared decision making around screening is recommended.

How best to implement anal cancer screening in a 'low-resource' setting?

In BC, there is only one HRA clinic in the province located in Vancouver with three trained physicians, and a waiting list nearing two years for non-urgent consults. The situation is similar in the rest of Canada, with only six clinics in the country, and roughly a dozen trained providers. Recognizing that one of the key challenges around anal cancer screening is the paucity of trained clinicians and clinical resources to perform this screening, the IANS guidelines also provide direction around how best to implement their recommendations based on local resources. For instance, if a setting is considered a low-resource setting for HRA (i.e. the waiting time for HRA is greater than six months), the guidelines set out alternate approaches. For instance, though all instances of HSIL or 'atypical squamous cells cannot exclude high-grade' (ASC-H) cytology should be immediately referred for HRA regardless of local capacity, if the results are abnormal but lesser than HSIL/ASC-H (i.e. atypical squamous cells of undetermined significance [ASCUS]; low-grade squamous intraepithelial lesion [LSIL]), the proposed modification is to repeat cytology in 12 months. In areas with no HRA capacity, the recommendation is to not do cytology at all, and use exclusively DARE for anal cancer screening. Box 1 outlines implementation considerations for primary care providers for anal cancer screening in the BC context.

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Primary Care Implementation Considerations for Anal Cancer Screening in BC

- Though anal cytology is a relatively easy test to perform, widespread adoption of anal cytology in all individuals considered eligible for anal cancer screening would likely lead to an unmanageable number of abnormal results to follow up.
- Given the low capacity for anal cancer screening in BC (i.e. one clinic in Vancouver with a long waitlist), these services currently need to be prioritized to those at highest risk (i.e. individuals living with HIV, persons with a history of VIN or solid-organ transplantation).
- One universal and easily implementable recommendation for all health care providers – particularly those in primary care or HIV care settings – is to perform a yearly DARE in all patients. In areas with no local HRA access, this is a reasonable approach.
- For priority screening populations (i.e. Risk category A from Table 1), attempts should be made to have these individuals screened with DARE and cytology as per guidelines. For a normal DARE, and a negative cytology result, the DARE and cytology can be repeated in 1-2 years. For any cytologic abnormality other than HSIL or ASC-H, the testing can be repeated in 1 year. For any HSIL or ASC-H result, these individuals should be referred for HRA.
- For any inquiries around anal cancer screening, or the anal cancer screening clinic at St. Paul's Hospital, please contact the article author (**troy.grennan@bccdc.ca**).

Table 1: Anal cancer screening recommendation from the International Anal Neoplasia Society (adapted from Reference 6)

Who to screen?	When to start?	How to screen
Risk Category A* (incidence > 17 per 100,000)		
• MSM and TW living with HIV	Yearly starting at age 35	• DARE, plus • Anal cytology and/or HPV testing If results are ABNORMAL, refer to HRA If results NORMAL, repeat screening in 1-2 years.
• Women living with HIV	Yearly starting at age 45	
• MSW living with HIV		
• MSM and TW not living with HIV		
• History of vulvar HSIL or vulvar cancer	Yearly, within 1 year of diagnosis	
• History of solid organ transplant	Yearly, starting 10 years post-transplant	
Risk Category B (incidence <10 per 100,000)		
• Cervical or vaginal cancer	Shared decision making at age 45	• DARE, plus • Anal cytology and/or HPV testing If results are ABNORMAL, refer to HRA. If results NORMAL, repeat screening in 1-2 years.
• Cervical or vaginal HSIL		
• Perianal warts		
• Persistent cervical HPV-16		
• Non-HIV immunosuppression (e.g. SLE, RA, systemic steroid therapy)		

Abbreviations: DARE, digital anorectal examination; HPV, human papillomavirus; HRA, high-resolution anoscopy; HSIL, high-grade squamous intraepithelial lesion; MSM, men who have sex with men; MSW, men who have sex with women; RA, rheumatoid arthritis; SLE; systemic lupus erythematosus; TW, transgender women;

*based on an anal cancer incidence of >10 times that of the general population

Integrating anal cancer screening into primary care continued from page 10

Anal cancer screening in BC: What's next?

There are still many barriers to a fulsome adoption and implementation of anal cancer screening both in BC and more broadly in Canada: too few clinics, too few trained physicians, long waiting lists, no public or organized screening programs, lack of awareness and education, and the unavailability of adjunct diagnostic tests including HPV testing. For these reasons, it remains challenging to know how to approach decision making for anal cancer screening, particularly for primary care providers. Current research efforts both locally and internationally are examining methods by which individuals can be more precisely prioritized for HRA, and these should help the eventual development of evidence-based implementation strategies.

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Vulvar health: skin care tips and when to refer

By Dr. Melanie Altas, Obstetrics & Gynaecology, University of British Columbia

Vulvar symptoms are a frequent issue for women visiting their family physician, with up to 20% experiencing symptoms such as pruritis, pain and dyspareunia. The range of potential causes is extensive and includes malignancy, infectious, inflammatory, hormonal and neurologic conditions. These symptoms are often chronic and can significantly impact a woman's emotional and sexual well-being.[1]

Dr. Melanie Altas

Vulvar squamous cell cancer makes up 5% of gynecologic malignancies. Diagnosing premalignant lesions can be a challenge for physicians as they often present with subtle signs and symptoms that can be easily overlooked or misdiagnosed. More details to help differentiate benign and pre-malignant conditions are included in the Spring 2023 edition of the Journal of Family Practice Oncology (JFPO) on page 3: "Precancerous Lesions of the Vulva: What you need to know" and can be found at http://www.bccancer.bc.ca/family-oncology-network-site/Documents/2023%20Spring%20FPONjournal%20Apr11.pdf

The role of vulvar skin care is frequently underestimated. Many women with vulvar symptoms feel shame, fear and frustration, and often suspect issues like yeast infection and poor hygiene. This can lead them to try various over-the-counter treatments and aggressive hygiene regimens, which may delay proper diagnosis and even worsen symptoms. Daily use of certain products can irritate the vulvar area, either causing a contact or allergic dermatitis, or exacerbating existing conditions, such as lichen sclerosus.

This review aims to guide patient counselling on vulvar skin care. Although I am not able to cover the medical management of specific dermatoses in this review, proper vulvar skin care should be a component of managing all vulvar skin conditions.

It is important to clarify terminology, as the terms "vulva" and "vagina" are often used interchangeably. A diagram or model can help illustrate the anatomy: the vulva includes the mons pubis, labia majora, labia minora, clitoris and the vestibule up to the hymen. The vagina begins at the hymen. The vulvar skin is more prone to irritation from topical products due to its unique properties compared to other skin areas.[2]

Like skin elsewhere, the mons pubis and labia majora have a keratinized, squamous structure with sweat glands, sebaceous glands, and hair follicles. In contrast, the inner labia minora and the vestibule have non-keratinized epithelium, lacking sebaceous glands and hair follicles. The vulvar skin is more susceptible to topical products because of its increased hydration, occlusion, and frictional properties.[2]

When treating patients with vulvar symptoms, a thorough review of their skin care regimen is imperative. Identifying potential irritants and optimizing skin care routines can significantly impact the management of both acute and chronic vulvar conditions.

An approach to discussing vulvar skin care includes the following:

- Identifying and removing irritants
- Implementing comfort measures and general skin care practices

See Box 1 for a list of common irritants and allergens.

A skin care handout can be found on the BC Centre for Vulvar Health website (www.bcvulvarhealth.ca) in the *Patient Handout* section.

What to Avoid

- Stop all potential chemical irritants such as perfumed washes, soaps, wipes, sprays
- Stop any over the counter antibiotics, antifungals, anesthetics
- Avoid tight clothing or activities (ie bike riding) that cause occlusion or chafing

What to recommend for general skin care

- Wash maximum once per day with warm water. Over washing the vulvar skin or using hot water can cause dryness.
- Use fingers for washing. Avoid rough cloths, loofahs etc...
- If the patient prefers using soap, recommend a scent-free hypoallergenic product such as Aveeno, Cerave or Cetaphil
- Pat the skin dry with a soft cloth or air-dry. No rough cloths or hairdryers.
- Use cotton underwear.
- Avoid daily pad use. If necessary (such as with urine incontinence) recommend the use of cotton pads. Avoid Always brand pads.

Comfort Measures

- For symptoms of vulvar dryness a moisturizer can be applied to the skin following bathing. Recommended brands include glaxal base, Aveeno, Cerave
- Some vulvar skin may benefit from a protective barrier, such as urinary incontinence with regular pad use. Recommended brands include Vaseline or any unscented zinc oxide based product.

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- Antibiotics-neomycin, bacitracin, polymyxin
- Antifungals – canestan, monistat, nystatin
- Anesthetics – benzocaine, lidocaine
- Antiseptics – povidone
- Condoms – lubricant or spermicide containing
- Preservatives & dyes-parabens, propylene glycol
- Perfumes – Balsam of peru, tea tree oil, other fragrances
- Moisturizers – lanolin, glycerin, jojoba oil
- Nickel
- Soaps, detergents & fabric softeners
- Fabric softeners
- Feminine hygiene products – pads (especially Always brand) diaper wipes, deodorant
- Mechanical irritants- facecloths
- Thermal – hot water bottle, hairdryer
- Body fluids – sweat, urine, feces, semen, saliva

Box 1: Common vulvar allergens and irritants[1,3,4]

Celebrating 85 years of counting at BC Cancer

By Dr. Kim Nguyen Chi, executive vice president and chief medical officer, BC Cancer and Tracy Irwin, chief operating officer, BC Cancer

Dr. Kim Nguyen Chi Tracy Irwin

Since the first cancer treatment centre opened in a renovated house at 11th Avenue and Heather Street – the site of today's Vancouver cancer centre – we've continued to grow. We've gone from five employees to almost 5,000. From one site to six regional centres and four more in development. We've gone beyond treating cancer to delivering a full spectrum of care from prevention, screening, and diagnosis, to research and education, supportive and palliative care.

In planning how we would mark this milestone, we brought together groups of people including physicians, leaders and front-line staff. While we heard about the many advances and innovations that mark our history, what stood from these conversations was a deep pride in our collective impact and a shared commitment to supporting one another and caring for our patients and their families. As one of our physicians said, "we show up because of our patients and our colleagues and because we are all in it together."

That's why we're celebrating 85 years of counting by shining a light on the people at BC Cancer and the tremendous difference they make. We're celebrating how every achievement, effort and moment of care and compassion – big and small – has counted in the lives of people with cancer in our province. We invite you to visit our website later this year to hear directly from our staff and physicians as they share their most meaningful moments, points of pride and what inspires them.

Here's what some of our team members have to say about their experiences at BC Cancer and what motivates them in their work:

"The cancer journey is one of the most difficult things to face, physically, mentally and emotionally. I see patients with cancer as some of the strongest and bravest individuals. Their strength and courage is what motivates me to bring my best each day," says **Janelle Halldorson**, nurse practitioner, BC Cancer – Abbotsford.

"BC Cancer is an incredibly inspiring place to work. The dedication of all our staff to provide the best possible care to our cancer patients is something that continues to motivate me every day," said **Dr. Dan Le**, medical oncologist, BC Cancer – Surrey.

"There is so much that goes on behind the scenes - that I am certain very little is recognized - to work together to ensure that patients and their loved ones receive the best possible care. Everyone I see here demonstrates tremendous compassion, competence, courage, and commitment," says **Gilbert James**, Indigenous Patient Navigator, BC Cancer – Victoria.

"There are a few patients you meet, get to know over a course of treatment, and carry with you for the rest of your life," says **Oliver Guevara**, radiation therapist at BC Cancer – Vancouver. "These patients become a reminder of why you do what you do."

"The one thing that means the most is hearing patients say thank you when you're just doing your job," says **Stacy Rodriguez**, clerical supervisor, BC Cancer – Kelowna.

"I think of every preparation as 'what if this were my family member's preparation.' That is why I give my best every day in the workplace," says **Brooklyn Marsh**, pharmacy technician, BC Cancer – Prince George.

Vulvar health
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- When symptoms have improved, and the patient wants to introduce sexual intercourse we recommend using silicone lubrication. Water based lubrication can become sticky during intimacy and requires repeat applications. Further, water-based lubes can be hyperosmolar and lead to increased dryness.

When to Refer

The most common symptom of vulvar cancer and precancerous lesions is vulvar pruritus, although patients may experience pain, dysuria and dyspareunia. Diagnosing HSIL or dVIN during an examination can be challenging owing to their varied appearance. Skin conditions that are not improving with treatment (dermatoses such as lichen sclerosis, condyloma), chronic ulcers or erosions, lesions with atypical features (irregular surface, differing pigmentation, asymmetrical) or the first episode of "genital warts" over age forty warrant further investigation. See Spring 2023 JFPO for more specific information.

Although an approach to vulvar skin care may appear simple, introducing these practices can have a significant impact on a patient's skin condition. A thorough review of vulvar skin care is an integral part of assessment and counselling.

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What's on at the 2024 BC Cancer Summit?

Hear from the Summit co-chairs about what you can expect at this year's event, taking place from Nov. 21-23 at the Sheraton Wall Centre in Vancouver.

The BC Cancer Summit is a key part of the fabric at BC Cancer, providing us with education and professional development opportunities, as well as a chance to connect with one another. Taking place from **Nov. 21-23** at the Sheraton Wall Centre in Vancouver, this year's Summit will primarily be an **in-person** event, with some **virtual** options.

Thinking about registering? Hear from the co-chairs of this exciting event as they share about what the Summit is, why people should attend, and what they can expect at this year's event.

What is the Summit?

Heena Vadgama, co-chair, BC Cancer Summit and coordinator, education services, BC Cancer

"The BC Cancer Summit is an annual three-day conference that provides education, professional development and unique relationship-building opportunities for oncology professionals from all specialties and disciplines. It's the only conference of its kind in Canada!"

Why should I attend the Summit?

Dr. Dan Le, co-chair, BC Cancer Summit and medical oncologist, BC Cancer – Surrey

"The Summit is the one opportunity every year when all of BC Cancer can come together to learn, network and connect. I have always found the Summit to be a tremendous opportunity to hear from our provincial experts on the latest in cancer research and treatment, and to connect with like-minded colleagues to discuss pertinent topics related to improving cancer care for our patients in B.C."

What inspires you to be involved with the Summit?

Ruby Gidda, co-chair, BC Cancer Summit and interim executive director, BC Cancer – Victoria

"My involvement in the Summit stems from my passion for fostering collaboration and knowledge exchange by bringing people together. It's amazing to see how the event creates an environment for ideas to flourish and for partnerships to be created at our many interactive workshops, panel discussions and sessions. The atmosphere is electric, vibrant, positive and lively."

What's special about the 2024 Summit?

Heena: Our theme this year is: *Transforming care – beyond 85 years*. We have an exciting and packed agenda from Nov. 21-23 – you'll have the chance to hear from some inspiring keynote speakers, and to attend plenary sessions and collaborative sessions addressing many topics across the continuum of cancer care. On the evening of Friday, Nov. 22, we will host an awards dinner to recognize the winners of the 2024 BC Cancer Excellence Awards, the 2024 Doctors of BC Terry Fox Medal, and of the poster abstracts competition.

Dan: One of my favourite aspects about attending the Summit is that I get to learn about important areas of oncology that are perhaps less featured at other international cancer meetings. For instance, this year, we will be featuring oncology-focused presentations on artificial intelligence, adolescents and young adults, team-based care, the new BC cancer centres in development, and the implementation of CAR T-cell therapy within our province, to name a few.

Ruby: Don't miss our amazing keynote presentations – this year we have **Sam Goodwin**, an inspirational speaker whose extraordinary human spirit survived being wrongfully accused of espionage and taken hostage in Syria in 2019; distinguished scientists **Dr. Martin Hirst** and **Dr. Andrew Weng**, both mentored by the late Dr. Connie Eaves for over two decades, who will profile her work and her lasting impact on cancer research and care; and patient partner **Dana Kyle**, who will share insights on lessons learned from a life with terminal cancer.

Access the schedule to learn more!
Visit bccancersummit.ca/schedule

How can I register?

- For the best price, be sure to secure your **early-bird rate** by registering on or before **Sept. 30**!
- Registration will remain open during the conference, until Nov. 23.
- For more information on registration dates and fees, visit bccancersummit.ca/register.

Spotlight on Vernon Community Oncology Clinic — collaboration and opportunity on many fronts

By Sian Shuel,
Medical Education Lead,
BC Cancer Primary Care Program

Dr. Hardy and Cancer Care Team enjoying a social evening in Vernon

Vernon was the first community oncology site in British Columbia (BC) to have BC Cancer employed medical oncologists in its community. At this site, like those in Penticton, Cranbrook, Kamloops and Nanaimo, BC Cancer employs the physicians and collaborates with the regional health authority to ensure that patients receive high quality cancer care as close to home as possible. I had the opportunity to catch up with Dr. Ed Hardy, the first BC Cancer medical oncologist in British Columbia to work at a community oncology site on what it looks like to work at a community oncology clinic and how it has changed over the years. Dr. Hardy has worked and lived in Vernon for over 20 years, where collaboration on many fronts is evident.

With more than 50% of systemic therapy treatments in BC given outside the BC Cancer Centres, Dr. Hardy notes the need for generalist medical oncologists and for general practitioners in oncology (GPOs), and the rewarding benefits of working in community oncology. He appreciates the close working relationship with other physicians in the community, including the local radiologists, pathologists, surgeons, and GPOs.

Cancer care and treatments have changed significantly since Dr. Hardy started in 1999; exciting advancements in cancer treatment have resulted in patients living much longer, and remaining on ongoing treatments for longer. In addition, the population of Vernon and the surrounding area has grown, with the current catchment being around 100,000 people. The clinic serves Vernon, and Armstrong, Enderby up to Revelstoke to the northeast, north to Falkland, south to Lake Country and East to Nakusp. All of this has resulted in a doubling of consult numbers in the last 20 years, and a huge increase in follow-ups. Lymphoma follow-up visits have tripled, GU follow-ups have seen a 2.5X increase, and lung cancer follow-up visits have increased by more than 5X compared to 20 years ago.

To try and handle this load, the medical team has grown significantly since 1999, when there was one Medical Oncologist and one GPO. The team has just added a third medical oncologist (recruiting for a fourth) and a third and fourth part-time GPO. The clinic currently has several GPO's working part time; Dr. Hardy notes that an advantage of having part-time GPOs is that there is better cross coverage for vacation or sick leave. There is currently an opportunity for a 5th GPO on the team in Vernon with details here.

In addition to the local team, the Vernon oncologists also rely on their more site specialized colleagues in the BC Cancer Centres throughout the province, and Vernon also receives support from Kelowna, whose medical oncologists see patients with more rare cancers, such as sarcoma, for the initial consult. Then, these patients receive their systemic therapy in Vernon under the shared care of the GPOs. Kelowna also sees patients with cancers that are primarily treated by surgery and radiation, such as head and neck cancers. Two GPOs from Kelowna also supported Vernon over the past two years by visiting the community to see patients.

In addition to clinical care, Dr. Hardy has made other contributions to the field. He is affiliated with the Canadian Association of Medical Oncologists and has helped create a community oncology bursary that supports medical oncology residents taking community oncology electives. He sits on the Royal College Medical Oncology Examination Board, and also contributed British Columbia's Tiers of Service framework, which helped establish a 'unified understanding and a shared language for describing clinical services, enabling service planning for all patients across B.C. hospitals'.[1]

Dr. Hardy notes the city of Vernon has much to offer. From hiking, biking, and downhill skiing to stand-up paddle boarding, boating, and golfing, there are activities to keep one active and entertained year-round. Vernon is also close to an international airport. More information on working at the community oncology clinic and living in Vernon can be found here.

From the working relationships of the smaller community to the non-work benefits of living in Vernon itself, it's easy to understand why Dr. Hardy has stayed in the same place for as long as he has.

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October is Medical Library Month

By Chantalle Jack,
Provincial Library Leader – BC Cancer
Krista Clement,
Clinical Librarian – BC Cancer - Kelowna

As we celebrate Medical Library Month in October, it's the perfect time to reflect on the role of the BC Cancer Library in supporting our healthcare professionals and enhancing patient care. Our mission is to empower healthcare teams with the vital, evidence-based information they need to make well-informed decisions.

Medical libraries in hospitals and cancer clinics are indispensable in enhancing patient outcomes. These specialized libraries provide immediate access to the latest research, clinical trials, and evidence-based guidelines. In a field as dynamic as oncology, where new therapies are continually emerging, a dedicated medical library on-site ensures that oncologists and other specialists can quickly access the most current information. Ready access to knowledge is essential to treatment approaches that reflect the latest advancements in medicine.

Clinical librarians at BC Cancer, as well as across BC's many health authorities, are vital partners in the healthcare process. By leveraging librarian expertise in complex information retrieval and management, healthcare professionals save valuable time, allowing them to focus more on direct patient care. Literature search requests from physicians, nurses, allied health, hospital administrators, and other staff and clinicians take librarians on average 3 hours + to complete and cover a broad range of topics, for example:

Is there a correlation between Benzene and the development of Hodgkin lymphoma?

How is AI in medicine being used in primary care?

What is the carbon footprint of oral meds?

What are the recommended FTE staffing levels for Radiologists?

On average, literature search support takes librarians on average 2.5 hours per request to complete, an endeavor that would take clinicians significantly longer to accomplish. If full text articles are needed that aren't within BC Cancer Library collections, we are able to request them from a network of medical libraries across North America and provide them to eligible requesters, free of charge. This support is crucial to the quality of healthcare delivery, as timely and precise information can significantly impact patient outcomes.

Chantalle Jack Krista Clement

Moreover, clinical librarians actively combat the proliferation of misinformation and disinformation about health. The sheer volume of online information is overwhelming, so it is important to distinguish credible sources from unreliable ones. Our librarians help to ensure that both healthcare professionals and patients have access to accurate, evidence-based information. This expertise not only supports better clinical decisions but also fosters a more informed and empowered patient community.

For the patients and families at BC Cancer, our library is a resource for education and empowerment. We provide access to a wide range of materials that help patients better understand their diagnoses, treatment options, and management of side effects, and curate topics into Pathfinders as starting places for patients to find key information on their diagnosis. By guiding patients through the complex world of medical information, our librarians enable them to actively participate in their care and make informed decisions. This patient-centered approach is further supported by the workshops and information sessions we organize for both staff and patients, promoting information literacy and critical thinking skills.

As we honour Medical Library Month this October, we highlight the invaluable contributions of our clinical librarians and the BC Cancer Library in advancing healthcare. Through their efforts, the library not only enhances the quality of care delivered by our healthcare teams but also significantly improves the overall patient experience. By fostering a more informed and engaged patient community, we contribute to better health outcomes and a more personalized approach to treatment. Our commitment to providing accurate, timely, and reliable information helps BC Cancer remain at the forefront of medical excellence.

The BC Cancer Library serves patients and families across BC and the Yukon, and BC Cancer staff and clinicians. Visit us online to learn more about our resources and services offered.

Health authority libraries include those at Vancouver Coastal Health, Interior Health, Island Health, Northern Health, and Fraser Health. Please reach out to your health authority library of affiliation for librarian literature search, borrowing, and document delivery service assistance.

BC CANCER
Provincial Health Services Authority

SAVE THE DATE

BC CANCER LUNG SCREENING FORUM

Saturday, February 1st, 2025

BC Cancer Research Centre
675 W 10th Ave, Vancouver BC

8:00am - 4:30pm

Preliminary Program:

- Program Update, Quality Indicators, and Screening Pathway
- Diagnostic Workup Pathway: PET, CT Biopsy and Bronchoscopic Biopsy, Surgical Management
- Radiologists Training and Case Challenge

Registration Fee:

- Complimentary for BC Cancer Lung Screening Program radiologists, diagnosticians, physicists, Health Authority Medical Imaging Directors
- Non-program registrants: $100 for in-person, $50 for virtual

This is a CME accredited event

PRE-REGISTER

by September 15th at:

https://tinyurl.com/yhzaehxn

Incidentaloma — the management of pancreatic cysts found on Ultrasound/CT/MRI

By Dr. Kenneth Wong, Clinical Associate Professor, UBC, Faculty of Medicine, Department of Radiology

Pancreatic cysts are common incidental findings on imaging. The incidence of pancreatic cysts are quoted as 1.2-2.6% on CT and 2.4-49% on MRI. There is an increase in incidence with age estimated to be 6.6% in the 8th decade of life with screening US vs 0% in the 3rd decade of life.[1]

Dr. Kenneth Wong

These cystic pancreatic lesions can be secondary to many causes ranging from benign to malignant as classified by the WHO criteria (Table 1). This is an exhaustive list but the most common causes are pancreatic pseudocysts and intraductal papillary mucinous neoplasms (IPMN) of all type. The majority are considered benign. But it is very difficult both clinically and on imaging to confidently differentiate benign from malignant cystic lesions. This in part has contributed to multiple guidelines by different pancreas related medical organizations to help clinicians and imagers on how to manage these incidental findings. This includes the American College or Radiologists, European Study Group on Cystic Tumours of the Pancreas and International Association of Pancreatology.[1,2,3,4] This has resulted in a confusion amongst radiologists as to which guidelines to use, a mixing of the guidelines and a mixing of recommendations. This has often led to unnecessary and continuous imaging follow-ups or on occasion unnecessary biopsies/surgeries.

Table 1. Classification of cystic lesions of the pancreas

Epithelial neoplastic	Epithelial non-neoplastic
Intraductal papillary mucinous neoplasm all types	Lymphoepithelial cyst
Mucinous cystic neoplasm	Mucinous non-neoplastic cyst
Serous cystic neoplasm	Enterogeneous cyst
	Retention cyst/dysontogenetic cyst
	Peri-ampullary duodenal wall cyst
Serous cystadenocarcinoma	Endometrial cyst
Cystic neuroendocrine tumour G1-2	Congenital cyst(in malformation syndromes)
Acinar cell cystadenoma	
Cystic acinar cell carcinoma	
Solid pseudopapillary neoplasm	
Accessory-splenic epidermoid cyst	
Cystic hamartoma	
Cystic teratoma (dermoid cyst)	
Cystic ductal adenocarcinoma	
Cystic pancreatoblastoma	
Cystic metastatic epithelial neoplasm	
Others	
Non-epithelial neoplastic	**Non-epithelial non-neoplastic**
Benign non-epithelial neoplasm	Pancreatitis-associated pseudocyst
(eg, lymphangioma)	Parasitic cyst
Malignant non-epithelial neoplasms	
(eg, sarcomas)	

The latest guidelines were published this year in 2024.[1] The Kyoto Guidelines were developed by the International Association of Pancreatology (IAP). IAP is an international multidisciplinary organization of basic scientists and clinicians centred on the study of the pancreas. It is the 4th revision of likely the most commonly used guidelines in British Columbia and were first developed in 2006. It uses size of the pancreatic cyst on imaging as well as the presence/absence of high risk or worrisome imaging/clinical stigmata/features to help determine course of action.

If a cyst is incidentally found on ultrasound a dedicated CT or MR of the pancreas is almost always recommended to further characterize the lesion, especially in those patients with no history of pancreatitis. Generally an MRI/MRCP is the examination of choice for further characterization or

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Figure 1. MRCP Imaging Subtypes of IPMNs

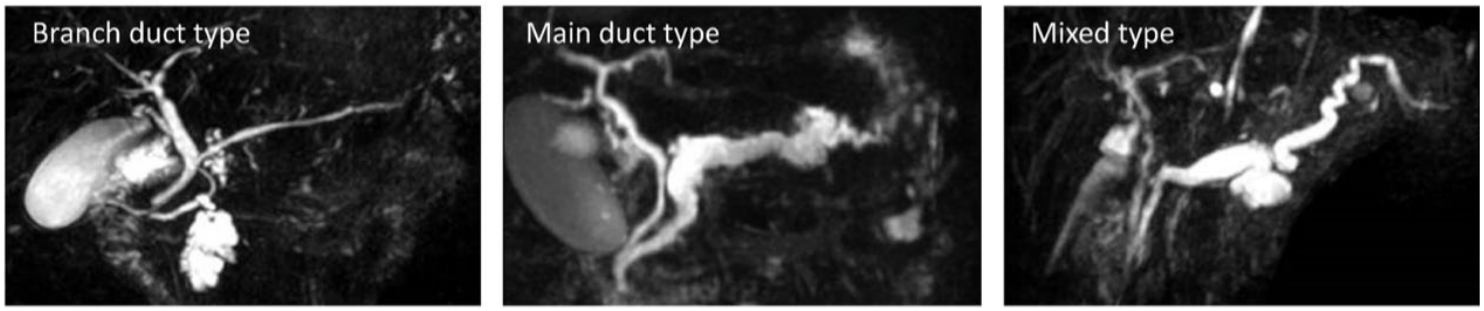

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Figure 2. Flowchart for pancreatic cysts found on imaging[1]

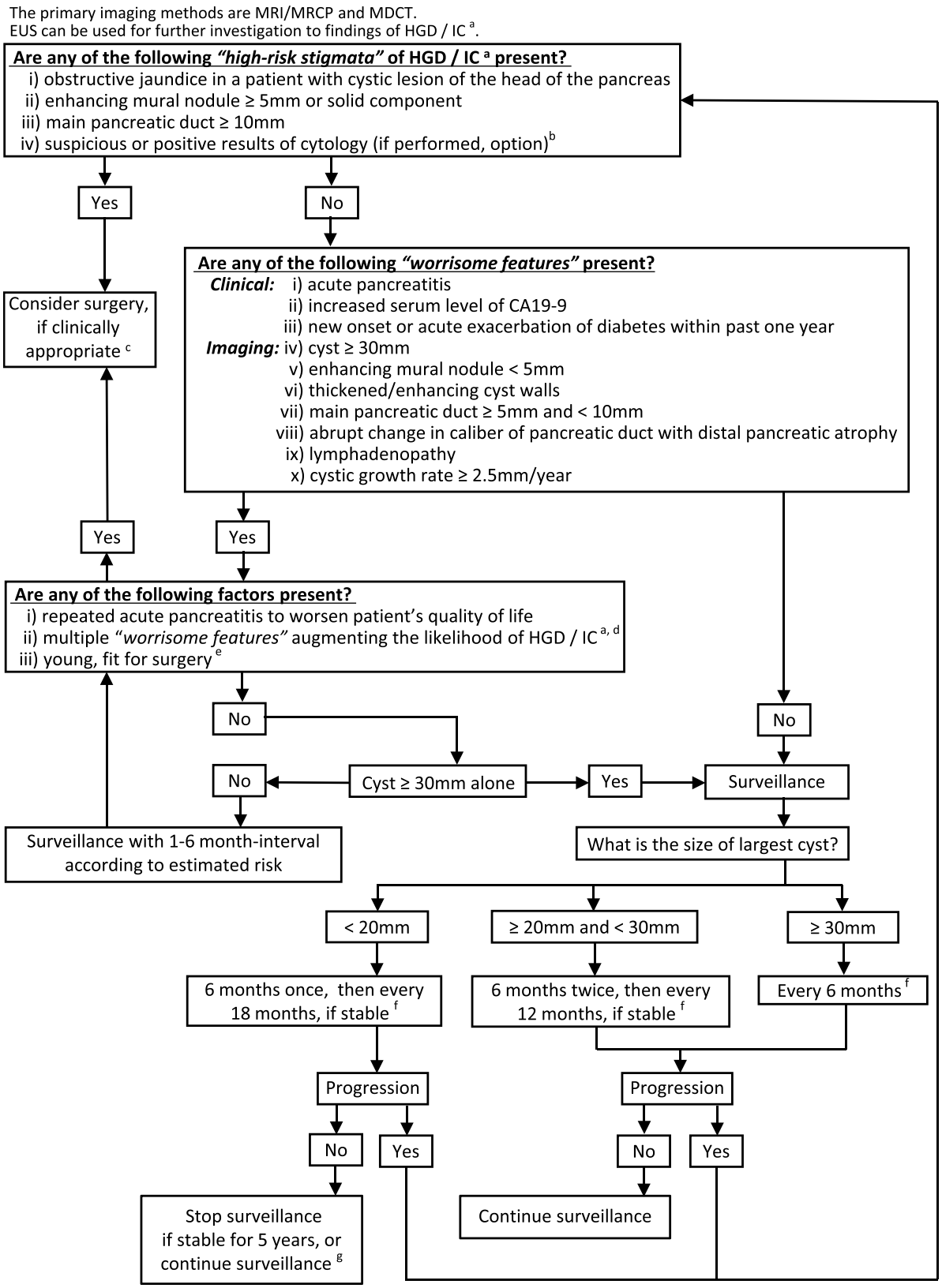


Fig 3. Algorithm for the management of suspected BD-IPMN.
a. HGD; high-grade dysplasia, IC; invasive carcinoma. b. "Positive result" indicates "high-grade dysplasia" or "adenocarcinoma". c. See Fig. 5 showing operative principles and post operative surveillance. d. Nomogram can be referred. e. It is hard to define these ambiguous factors, and will be determined according to the physicians' viewpoints, patients' age, condition, life expectancy, and preference, cyst location, etc. f. Use combination of multi-detector computed tomography, magnetic resonance imaging/cholangiopancreatography, and endoscopic ultrasound, and blood examination including tumor marker/HbA1c, according to the institutional policy. g. Necessity of long-term surveillance remains unclear, and will be determined based on regional health economics, risk of concomitant ductal adenocarcinoma, and patients' age, condition, life expectancy, and preference, etc.

BC Cancer Tumour Groups & Provincial Programs proudly presents Clinical Care Pathways!

By Dr. Christine Simmons, Medical Oncologist & Provincial Tumour Groups Chair

Dr. Christine Simmons

BC Cancer has now developed nine tumour specific Clinical Care Pathways

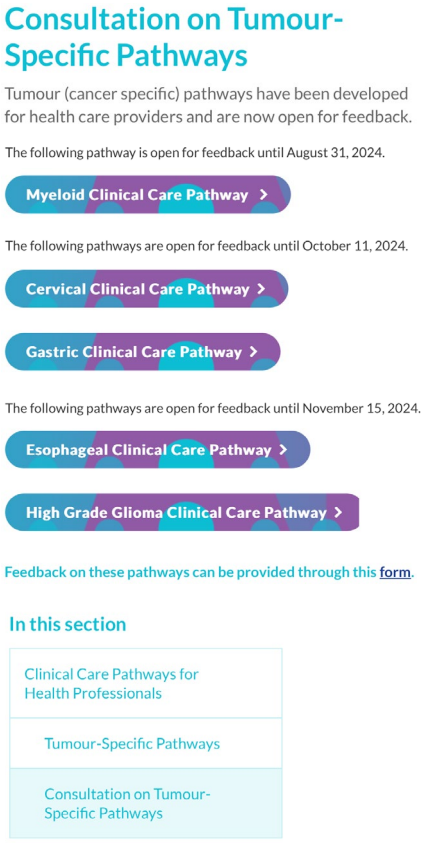
BC Cancer's Tumour Groups are collaborating to create Tumour-Specific Cancer Care Pathways to support health care professionals in delivering high quality care consistently and efficaciously to all patients with cancer.

BC Cancer has published four clinical care pathways, including Prostate, Oropharyngeal, Bone and Soft Tissue Sarcoma. An additional five pathways are now open for consultation, including Myeloid, Cervical, Gastric/GEJ, Esophageal/GEJ, and High-Grade Gliomas.

- Each Tumour-Specific Pathway was developed by a multi-disciplinary team of specialists across health authorities in BC and approved by the relevant Provincial Tumour Group Committee.
- Each pathway is tumour specific and features references, hyperlinks and notes that will guide clinicians as they support their patients through their cancer care journey.
- Each pathway aligns with the stages of the Overarching Clinical Care Pathway: Pre-diagnosis, Diagnosis, Treatment, Post Treatment Care & Survivorship, Recurrent or Progressive Disease and End of Life Care.
- Additional tumour-specific pathways will be added over the next year.
- The pathways are now available on our website for Health Authority and Community engagement.
- Patient-oriented companion guides will follow for each pathway to support patients and their family members with patient-centered resources.

Please share with your teams and feel free to provide feedback. A feedback form is located at the bottom of the Consultation on Tumour-Specific Pathways page. Consultation on Tumour-Specific Pathways

We look forward to your feedback.
Any questions? Please email TGCoordinator@bccancer.bc.ca



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follow up due to higher lesion conspicuity. MRCP is especially helpful in differentiating between the different types of IPMN. Dedicated CT/MR protocols of the pancreas would include high resolution post contrast multiphasic imaging.

The majority of cystic lesions in a patient with previous pancreatitis will be pancreatic pseudocysts. These pseudocysts are often multiple and can also be found outside of the pancreas. In general they will decrease in size within a short period of time excluding the need for extended follow up or biopsy. These are not usually "incidental" findings often with the CT or MRI being requested for "complicated pancreatitis".

The majority of pancreatic cystic lesions in a patient with no history of previous pancreatitis will be IPMN. There are 3 subtypes of IMPNs based on imaging: branch duct type, main duct type and mixed. All 3 subtypes are considered neoplastic but branch type are generally low grade dysplasia that can be followed while main duct and mixed are considered high grade dysplasia that require more aggressive intervention. This is why MRCP is an important imaging tool in helping differentiate branch type from main duct/mixed type of IPMNs as illustrated in Figure 1.

The Kyoto Guidelines are evidence based guidelines in which a systematic literature/research reviews were undertaken in 5 main topics but the most pertinent topics to this article are:

- revision of imaging and clinical high risk stigmata and worrisome features
- surveillance protocol for non-resected IPMN

High risk stigmata on imaging includes enhancing mural nodule greater than 5mm or a main pancreatic duct greater than 10mm in diameter. Clinical finding includes obstructive jaundice. These findings often are related to main duct/mixed types of IPMNs.

Worrisome features on imaging includes cysts >30mm, pancreatic duct between 5-10mm in size, lymphadenopathy and pancreatic atrophy. Clinical findings includes elevated CA 19-9 or new onset diabetes. A progression in size of greater than 2.5mm/year is considered worrisome. This is laid out in the provided flowchart (Figure 2[1]) produced by the IAP.

The graph is complicated but in general most radiologists who identify an incidental pancreatic cyst on CT/MR imaging will look for high risk stigmata or worrisome features. The presence of high risk stigmata results in a specialist recommendation, usually a pancreatic surgeon for consideration of resection. If no high risk stigmata are present but there are worrisome features then a referral to gastroenterologist is recommended for further clinical assessment and possible further investigation with endoscopic ultrasound.

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Incidentaloma
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The most common imaging scenario is finding an incidental pancreatic cyst with no high risk stigmata or worrisome features. Then follow up imaging is recommended based on the size of the cyst. The larger the cyst the more frequent the imaging over a longer period of years. For larger cysts greater than 30mm it is once every 6 months. The majority of cysts are less than 20mm in size requiring a 6 month exam then one exam every 18 months thereafter. The length of follow up is unclear at this time but generally for smaller cysts 5 years and for larger cyst 10 years is the norm.

The incidence of multifocal incidental pancreatic cysts is 20-40%.[1] But the presence of multiple cysts has been reported to not increase the risk of a high grade dysplasia. Therefore the management of multifocal pancreatic cysts will be based on the size of the largest cyst. This is reflected in the flowchart.

Finding incidental pancreas cysts is a common occurrence in medical imaging. In general most pancreatic cysts are benign representing pancreatic pseudocysts or branch duct IPMN which is considered a low grade dysplasia not requiring intervention. Size of cyst, high risk stigmata or worrisome features are used in the most recent 2024 Kyoto Guidelines to help imagers be more consistent with their recommendations of incidental pancreas cysts.

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Medication-related Osteonecrosis of the jaw

Adapted from the BCDA Journal

By Dr. Suzanne Carlisle,
Regional Department Head, Oral Oncology/
Dentistry Surrey, BC Cancer Surrey

New cancer cases continue to rise each year as a result of the growing and aging population. According to Canadian Cancer Statistics, between 2015 and 2030, the number of newly diagnosed cancer cases is expected to increase by approximately 40%. At the same time, cancer mortality has decreased 30% from 1988 to 2021, resulting in increased survivors and patients on potentially ongoing cancer maintenance therapies.[1] Some of the medications used in various treatment modalities pose risk of dentoalveolar sequelae which can compromise patient's quality of life, necessitating abandonment and reduction of optimal regimen.[2] These include I.V. bone-modifying agents (BMA) as well as anti-angiogenic drugs which may be used during active and cancer maintenance therapies. With the increasing incidence of cancer and increasing survivorship, more patients are exposed to these medications and thus require modified dental consideration and management due to the risk of medication-related osteonecrosis of the jaw (MRONJ).

Dr. Suzanne Carlisle

MRONJ is defined as exposed dental bone or bone that can be probed through an intraoral or extraoral fistula(e) and has persisted for more than 8 weeks in patients with a history of treatment with antiresorptive therapy or antiangiogenic medication, and where there has been no history of radiation therapy to the jaw or no obvious metastatic disease to the jaw.[2] The etiology and pathophysiology of MRONJ is multifactorial and is hypothesized to involve inflammation or infection along with bone remodeling inhibition and angiogenesis inhibition caused by bone-modifying agents and anti-angiogenic drugs.[3]

Bone-modifying agents, such as bisphosphonates and monoclonal antibodies, have direct effects on osteoclast differentiation, and function leading to bone remodeling inhibition. There are several indications for bone-modifying agents including treatment of multiple myeloma, hypercalcemia of malignancy and to reduce the risk of bone metastases in cancer patients. Metastasis to bone are common in some cancers such as breast and prostate cancer, and in these settings are effective in reducing the risk of pathological fractures, severe pain, and other bony complications in patients with metastatic bone disease. As such, they can greatly improve the quality of life of cancer patients. However, due to their osteoclastic activity, bone remodeling and angiogenesis, they present a risk of developing MRONJ.[4]

Although Bone-modifying agents are commonly used to manage osteoporosis and osteopenia, the risk of MRONJ *is significantly higher* in cancer patients (<5%) in comparison to patients being treated for osteoporosis (<0.05%). Medications associated with MRONJ are shown in Table 1 (MMRONJ).[5] It is important to note that as therapies evolve, more medications are expected to be added to the list in Table 1.

The main risk factors include dose and duration of MRONJ, age (>65), periodontitis, smoking, diabetes, ill-fitting complete or partial dentures, trauma to jaw and/or poor oral hygiene.[6] A common trigger to MRONJ is trauma to the dentoalveolar process that includes surgical procedures such as extractions, crown lengthening, periodontal surgery, and implant placement. The risk of MRONJ is similar to the risk of osteoradionecrosis following tooth extraction in patient with history of receiving radiation to the jaw.[3]

It is imperative that patients obtain a dental screening for the dentist to assist in understanding the dental implications and considerations for management of cancer patients who have been exposed to MRONJ. All patients should have a full dental assessment prior to starting treatment, with dentoalveolar operations ideally completed at least 4 weeks prior to initiating bone-modifying infusion.[4] During and after treatment, patients should visit their dental provider on a regular basis. Patient education is critical in reducing risk of MRONJ and should include promoting oral hygiene, diet counselling (reduction in frequency of sugary drinks and snacks) and encouraging patients

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Table 1: Medications that can cause MRONJ (MMRONJ)[5]

Medications associated with MRONJ arranged by type of drug		
Bisphosphonates	**Tyrosine kinase inhibitors**	**Immunosuppressants**
Zoledronic acid	Sunitinib	Methotrexate
Pamidronate	Cabozantinib	Corticosteroids
Risedronate	Imatinib	Thalidomide
Ibandronic acid	Sorafenib	Rituximab
Alendronic acid	Regorafenib	Adalimumab
Clodronate	Axitinib	Ipilimumab
	Pazopanib	Infliximab
	Dasatinib	Romosozumab
Selective estrogen modulator receptors (SERM)	**Monoclonal antibodies**	**Mammalian target of rapamycin**
Raloxifene	Bevacizumab	Sirolimus
	Denosumab	Temsirolimus
		Everolimus
Radiopharmaceuticals	**Fusion proteins**	
Radium 223	Aflibercept	

Medication-related Osteonecrosis of the jaw continued from page 22

to seek immediate care if they experience any oral concerns. *Due to the long half life of many of the MMRONJ, patients who are exposed to these agents may be at* ***lifelong risk of developing MRONJ****.*[7]

Figure 1. Exposed lingual bone in the posterior mandible (MRONJ).

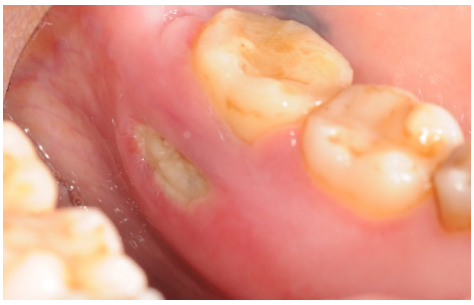
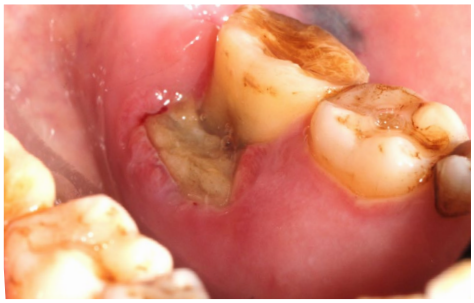


Figure 2. Photo taken 3 months after Figure 1. MRONJ progression



As a primary healthcare provider, it is critical to recognize the signs and symptoms of MRONJ in patients to facilitate optimal referral and care. Signs of MRONJ include absent or delayed healing after extraction, persistent and/or unexplained bone exposure with or without surrounding inflammation and tenderness, and microfractures. Symptoms of MRONJ may include pain, swelling, offensive odour, loose teeth, or paresthesia.[4] Figures 1 and 2 show a case of MRONJ in a prostate cancer patient exposed to denosumab, experiencing unexplained pain. His dentist performed a root canal, but pain persisted and was followed by minor periodontal surgery. As he was scheduled for chemotherapy infusion, his oncologist referred him to BC Cancer Surrey's Oral Oncology department. Upon assessment, exposed, non-vital bone was noted, and a diagnosis of MRONJ was given (Figure 1). Subsequently, his denosumab was held. Within 3 months, the exposed necrotic bone continued to progress (Figure 2). Due to increased pain, the patient's cancer therapy was further altered, I.V. antibiotics started, and he suffered nutritional challenges leading to moderate weight loss. He has since lost this tooth as well as the surrounding bone. His pain was controlled, and he resumed cancer therapies.

In consideration of the patient's medical therapy, routine dental care should be encouraged in cancer patients, especially if exposed to MMRONJ. Most dental procedures are not contraindicated unless there are other concerns or complicating factors.

In conclusion, it is important to identify patients at risk of MRONJ. Seek assistance with diagnosis and treatment of cancer patients with unexplained sources of pain and/or any unresolving bone exposure. *Any unexplained dental symptom(s) in a cancer patient that may be at risk of MRONJ should be referred to a BC Cancer Dentistry/ Oral Oncology Department or appropriate specialist.* Educate patients regarding importance of regular dental/oral care and benefits of timely dental disease diagnosis, intervention, and management. Routine dental care is not contraindicated for at risk patients, however precaution must be taken when surgical procedures are required. Management of MRONJ is complex and should be referred for expert management.

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Additional Background and Resources

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BC Cancer Primary Care Program: Family Practice Oncology Network (FPON): History and timeline of education opportunities

By Dr. Cathy Clelland, Medical Director, BC Cancer Primary Care Program

"For a long time, the role of primary care in cancer was largely seen as peripheral, but as prevention, diagnosis, survivorship, and end-of-life care assume greater importance in cancer policy, the defining characteristics of primary care become more important." Lancet Oncology, 2015

In 2003, the BC Cancer Agency launched the Family Practice Oncology Network (FPON) to provide oncology education, resources and connections to strengthen family physicians' abilities to care for people living with cancer in their communities. Dr. Phil White was the initial Medical Director and along with several other family physicians, GPOs and oncologists began the work to develop this new program. FPON was initially guided by a Council with representatives from across the cancer care system and the primary care system to determine the educational activities that would benefit family physicians and their patients facing a diagnosis of cancer.

Dr. Cathy Clelland

One of our initial goals was to address the education and training needs for the implementation of General Practitioners in Oncology (GPOs) so that every community with a catchment of 15,000 or more would have access to cancer treatment as close to home as possible through collaborative care with oncology specialists at an appropriate regional/provincial centre. This was launched in 2003 for rural family physicians to prepare them for assuming a higher level of responsibility, allowing numerous patients to receive care closer to home in BC and Yukon. Until the COVID Pandemic, the GPO Education Program included a 2-week full day in-person didactic sessions and 6-week clinical rotations at the BC Cancer Regional Centre that participants would mostly be sharing care with. Over the past twenty years, we have expanded this to a twice-yearly Clinical Practitioner in Oncology (CPO) Education program to support new GPOs as well as NPs in Oncology and residents in Palliative Care. In 2020 with the COVID Pandemic, FPON rapidly pivoted to offer the didactic sessions virtually over four weeks of half day ZOOM sessions.

To support the ongoing educational needs of GPOs and NPs in Oncology, the FPON GPO Case Study Day has been offered annually since 2016, initially at the Child & Family Research Institute at BC Children's/ BC Women's Hospital. It is now included as part of the BC Cancer Summit in November and provides case-based, collaborative interactive presentations by GPOs and oncology specialists on management topics relevant to these oncology providers working in regional cancer centres and community oncology sites throughout BC and the Yukon.

FPON first partnered with UBC CPD to develop and offer the Cancer Care Outreach Program on Education (CCOPE) in 2011 with a mandate to provide up to date evidence-based education modules on cancer care to family physicians and other primary care providers in British Columbia on cancer care. The aim of the CCOPE initiative was to support the cancer care learning needs of family physicians in BC through the delivery of accredited, local, and interactive case-based workshops by offering four modules developed on breast, prostate, colorectal, and advanced cancers. By the end of CCOPE in 2015 over 700 family physicians in various communities across BC had been engaged in these in-person, small group learning sessions.

In 2016, FPON expanded to become the BC Cancer Primary Care Program with a mandate to: bring the lens of primary care into the strategic work of BC Cancer; facilitate support for primary care providers through education in partnership with UBC CPD; develop primary cancer care guidelines in partnership with the BC Guidelines and Protocols Advisory Committee (GPAC); and, advocate for clear lines of communication between primary care and oncologists to provide adequate resources to care for this complex population.

In 2017 we undertook a Primary Care Needs Assessment in partnership with UBC CPD to guide the new primary care program activities. Through this needs assessment we identified five areas of focus for the Primary Care Program:

- Increase clarity in roles and care delivery;
- Support for increasing clinical knowledge in an ever-evolving cancer care system;
- Improve communications;
- Addressing education barriers; and
- Understanding the role of BC Cancer.

We have been hosting an annual Family Practice/Primary Care Education event since 2004. FPON has used the information gleaned from the Needs Assessment to support the educational activities for Family Physicians and members of the broader primary care community that have expanded over the years to include the offering of monthly Primary Care Webcasts (8:00 am 3rd Thursday each month except July/ Aug/Dec) with presentations on a variety of Cancer topics, an annual Primary Care CME Day now held in April and production twice yearly of the Journal of Family Practice Oncology (Spring and Fall) now available only in a virtual format. The Journal brings follow-up articles to many of our webinar and CME events as well as updates relevant to community primary care and their patients with cancer.

The Primary Care Program/FPON has also been involved in the development and updating of many BC specific primary care cancer focused guidelines. To date we have co-published guidelines on Lung Cancer (2021), Prostate Cancer (2020), Palliative Care (updated 2017), and Female Genital Tract Cancers (2014-2016), and contributed to guidelines for Colorectal (2013) and Breast Cancer (2013) in partnership with

continued on page 25

BC Cancer Primary Care Program continued from page 24

the BC Guidelines and Protocols Advisory Committee (GPAC). In 2016, we published independently produced guidelines for Upper Gastrointestinal Cancers that can be found on our website and will be updated over the coming year. We most recently partnered with the Guidelines and Protocols Advisory Committee (GPAC) to develop the Primary Care Guidelines for the Cervical Cancer Prevention and Screening that is currently out for external review with a goal to publish in early 2025.

In 2020 FPON again partnered with UBC CPD to develop a library of online self-directed learning modules that currently include the BC Cancer Primary Care Learning Sessions for Prostate, Breast, Colorectal and Lung Cancers. We will be developing an additional module on Cervical Cancer aiming for implementation in 2025. eLearning courses offers valuable resources and knowledge to support health professionals in their work. These online courses are designed to provide primary care providers with up-to-date information on the diagnosis, treatment and management of cancer in primary care settings. Explore the BC Cancer Primary Care Learning Sessions today using the following link: https://ubccpd.ca/collaborate/portfolios/cancer-care-education

As a next step from the in-person CCOPE sessions, these modules also form the basis for Virtual Small Group Learning Sessions connecting community primary care providers, local specialists and GPOs with the oncology team at their Regional Cancer Centre. These virtual sessions are an opportunity to meet each other, discuss opportunities and challenges that are faced at the local level, and start the networking discussion to develop possible solutions and support a sustainable cancer care system.

While links to all our educational offerings can be found on our website FPON.ca, to improve our ability to communicate with community providers and healthcare partners about the latest Family Practice Oncology Network (FPON) news, educational updates, practice gems and other BC Cancer Primary Care communications including information on the electronic publishing of the twice-yearly Journal, please scan the QR code to sign up for our communications database.

Questions? Please contact us at fpon@bccancer.bc.ca

BC CANCER
Provincial Health Services Authority

Screening saves lives.

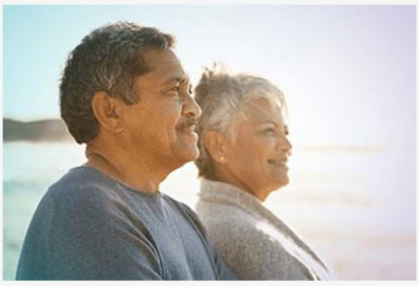
Screening can prevent cancer or help catch it in its earliest stages, allowing more treatment options and a better chance of recovery. BC Cancer has province-wide screening programs for breast, cervical, colon and lung cancer.

Breast Screening

Women 40-74 should get regular screening mammograms

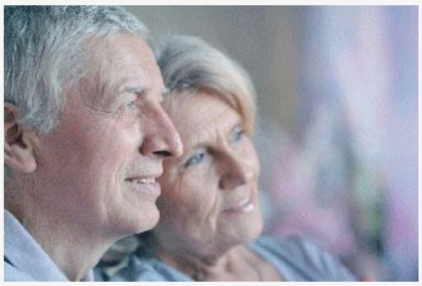
Cervix Screening

People with a cervix between ages 25-69 should get regular cervix screening



Lung Screening

People ages 55-74 with a history of smoking for 20+ years may be eligible for lung screening.



Colon Screening

People ages 50-74 should get regular colon screening.

FOR MORE INFORMATION

To learn more about the Family Practice Oncology Network or become involved, please email FPON@bccancer.bc.ca or visit www.fpon.ca

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