

Education Update

By Dr. Sian Shuel,
Medical Education Lead, FPON

BC Cancer Primary Care Program's educational arm, also known as the Family Practice Oncology Network (FPON), continues to host various educational events for primary care providers, general practitioners in oncology (GPOs), and others.

In ongoing support of patients accessing quality cancer care as close to home as possible, FPON continues to run GPO Education, an 8-week educational requirement including 4-week half-day virtual didactic Clinical Practitioner in Oncology (CPO) Education accredited for over 70 MainPro+ hours by UBC Continuing Professional Development and 6 weeks of clinical rotations. GPO Education is a requirement for all GPOs practicing in British Columbia (BC). In support of ongoing improvement, FPON collates, evaluates and implements recommendations after every iteration of CPO Education. This year saw the

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BEST PRACTICE CANCER CARE GEMS

5. Ovarian Cancer Overview and Case Studies
7. Opportunistic Salpingectomy for General Surgeons
9. Hereditary Cancer Update: Mainstreamed Testing
11. Radiology Incidentaloma – Thyroid Nodules
13. Fertility Preservation for Individuals Starting Cancer Treatment
15. AI in Literature Searching
18. Advance Care Planning: A Life Process

Haida Gwaii Cancer Care – tertiary level care in a faraway place



Just down the street from the hospital

By Tracy Morton MD GPO

Haida Gwaii is ranked as one of the most remote parts of BC. Home to about 5000 hardy souls, a 50:50 mix of Indigenous and settlers, Haida Gwaii is the land and waters of the Haida Nation. About ¼ the size of Vancouver Island, Haida Gwaii is mostly wilderness, with vast forests and mountains.

Travel to Haida Gwaii requires either a 2-hour flight from Vancouver, or a 7-hour ferry ride from Prince Rupert across the Hecate Strait, one of the most challenging bodies of water to navigate in North America with frequent cancellations and delays because of swells up to 10 metres and hurricane force winds

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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

Disclaimer, If you experience difficulties with any hyperlinks, you may need to update your pdf reader.

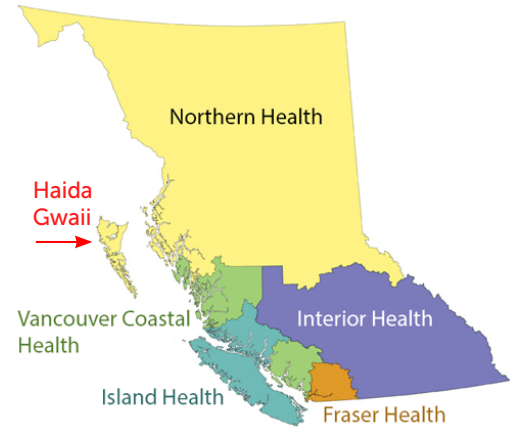


several times per year. Health care is provided at two hospitals in both Daajing Giids and Masset (Northern Health) and two First Nations health centres (First Nations Health Authority) by a highly interdependent team of providers.

Since 2008, Haida Gwaii Cancer Care has been providing a full range of chemotherapy services out of the Haida Gwaii Hospital. Before this time, most adjuvant therapy patients would travel to and from Northwest BC or Vancouver to receive therapy. Most

palliative patients faced a dilemma – chose an oral option, travel frequently (and indefinitely) or move away to be close to an infusion centre. The reality is that many chose comfort care alone.

We are the province's smallest Community Oncology Network (CON) site, with 2 GPOs, 2 systemic therapy nurses and one pharmacy tech who mixes medications flown in by floatplane. Upon review by medical oncology, we oversee ordering and provision of therapy. With the embracing of virtual care options by BCCA, the majority of patients do not meet their medical oncologist in person. Outside of their initial diagnostic journey and surveillance



imaging, patients can stay on Haida Gwaii and enjoy the full benefits of contact with BC Cancer's expertise, receiving their treatments and supportive care close to home. With so many life-extending lines of treatment, the majority of modern cancer care has become noncurative/palliative in nature, patients on Haida Gwaii live longer and healthier with cancer, like their urban counterparts.

For this article, one of our patients with myeloma wrote: "Receiving a diagnosis of incurable cancer in August of 2017 was an unexpected surprise. I was given three to five years and immediately put on a chemo therapy program that could be delivered in our tiny community of Daajing Giids. Two of our local G. P's, Dr. Morton and Dr. Shoener, had training and experience in cancer care. There was also a pharma tech to mix the drugs and a nurse with extra training in chemo delivery. I quickly realized how fortunate I was to be able to stay in my own home, live near my family and continue in this community while I received the necessary care. My oncologist, Dr. Ambler, was comfortable to have our appointments by telephone after meeting her in person only once.

The only time I was frustrated was during a considerable period when we had no pharma tech and all cancer patients on I. V. therapy had to go off island to receive their chemo. I was away for four months, but was switched to an all pill therapy, then could return home to my family and familiar cancer team. Other local cancer patients were away as much as a year."

GP in Oncology work on Haida Gwaii involves a great deal of logistics, with the biggest challenges being access to and mixing medications. Our solo pharmacy technician mixes medications with virtual supports from Regional Pharmacy. Medications arrive by

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Meet the GPOs



Tracy Morton GPO, Kate Vermeer RN, Caroline Shoener GPO in front of Haida Gwaii Hospital

care, he helped launch Haida Gwaii Cancer Care with BCCA partners, believing that rural and remote patients should be able to access as much specialized care at home as technically feasible. He participated in a 40-year historical review of cancer on Haida Gwaii in 2014-2016 with Dr Robert Olson, radiation oncologist.

Dr. Caroline Shoener was also doing locums around the province before arriving at Daajing Giids more than 20 years ago. Originally from Montreal, she loves the natural setting of Haida Gwaii and the deep roots of the Haida culture. Although she notes many beautiful places in British Columbia, the connections with the people in the community and the medical community made her want to stay. The scale of the community provided the opportunity to get to know her patients over the years, incrementally making connections to multiple family generations. The feeling of caring for one another in the medical community initially attracted Dr. Shoener as well. While she notes that a small cancer care team is fragile as there's no redundancy, they pull together and get things done. Cancer care is a portion of Dr. Shoener's work week. Other roles include covering the outreach clinic, emergency room, 16-bed hospital (including acute and long-term care), home visits, low-risk obstetrics and one in four on-call. For more information on health and community services on Haida Gwaii, visit the Haida Gwaii Health's website: www.haidagwaiihealth.ca/cancer-care.html

Long ago, in another century, Tracy Morton moved from small town Alberta to Edmonton for his undergraduate and medical degree and then to New Brunswick for a rural generalist residency. Thinking he might like to locum on a permanent basis, he found this kind of work inherently unsatisfying. Upon arriving on the shores of Haida Gwaii in 2000 for a 2-week locum, he knew he had found home, and extended his contract initially for a year, but now into perpetuity. Seeing the incredible challenge that cancer patients faced accessing (or choosing not to)

*Haida Gwaii Cancer Care
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floatplane, subject to weather delays. We are vulnerable to staff illnesses or vacancies, and our program has been suspended at different



Athena Nicholson, pharmacy tech,
central to our program

points in time with absences. It is not easy to recruit GPO locum coverage as most of our work actually entails family practice, inclusive of ER and hospitalist work, such that anyone coming for a GPO locum would have to work broadly as a rural generalist.

The rewards of this work are substantial – as clinicians in this field, we are a resource to our colleagues island-wide. All of us have lived on Haida Gwaii for many years and know our patients well, walking beside them on their cancer journey, be it short or long. Helping patients and families transition to palliation and end-of-life care is intimate, sacred work. Though I enjoy the tension of the emergency room and acute care, it is this “relational medicine”, with our team and with patients, that is the most satisfying aspect of my profession as a rural generalist.

We have many gratitudes. To Northern Health, for being understanding and supportive of this specialized care, which is perhaps not easy to justify based on the metrics of visit volumes. (A special mention goes to Dr Jaco Fourie and Kristin Marren from NH Cancer Care for their patience with us!) To Pharmacy Tech, Athena



Vanessa New, RN at work

Nicholson who orders, inventories and mixes our medications. To our nursing colleagues, Vanessa New and Kate Vermeer, who safely deliver these miraculous treatments. To our Regional Oncology Pharmacy, who keep us on the straight and narrow and get meds to us from all over the province. And to BCCA and the FPON, for the incredible support for us and patients of Haida Gwaii, many of whom would not be with us, if it weren't for your understanding of the importance of care at home.

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integration of Bispecific Antibody Therapy, The Role of Diet and Exercise in Cancer Treatment and Survivorship, and the reorganization of lymphoma talks due to ever-increasing management options. The additional hands-on deck at FPON supported the active collation of session slides ahead of time to support various learning styles further. While FPON works to meet the onboarding learning needs of GPOs and BC Cancer NPs through CPO Education, the virtual didactic platform has enabled attendees to join as a knowledge refresher and to join from other Canadian provinces. For example, the Fall 2024 intake saw 49 registrants, including GPOs from 10 different communities around BC, attending various sessions as a knowledge refresh. In addition to hosting first time attendees from BC, the spring 2025 intake also hosted first time attendees from North West Territories, Nova Scotia, Prince Edward Island and a medical oncology clinical lead from New Zealand looking to implement similar education and cancer care model in their country. In this intake, 25 practicing GPOs and BC Cancer NPs from 14 different communities

took in select CPO Education sessions as a knowledge refresh.

In November 2024, FPON hosted GPO Case Study Day at the BC Cancer Summit. The hybrid format ensured access to education

for GPOs working in rural and remote regions. Talks included 'Bispecific Antibody Therapy,' 6 W's of Biomarker Testing in Metastatic Colorectal, Metastatic Non-Small
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A line drawing illustration of a person sitting at a desk, looking at a laptop. The laptop screen shows a video conference with several participants. The background is a solid teal color.

Save the Date

FPON Primary Care Webcasts

April 17, 2025: Localized Prostate Cancer Management and Surveillance

May 22, 2025: Discussing Opportunistic Salpingectomy with Patients in Primary Care

June 19, 2025: The Role of Diet and Exercise in Cancer Treatment and Survivorship

Visit fpon.ca to register to our upcoming complimentary accredited webcasts.

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'. The Association of BC GPOs hosted a lunchtime event reporting on and collecting ongoing feedback as they collaborated with the Community Oncology Network (CON), BC Cancer Medical Staff Engagement Society, and FPON on ongoing work on GPO workforce stabilization in the province.

Part of GPO stabilization work has included

the implementation of the 2-week GP in Oncology Focused Family Medicine Elective. Working with medical leaders at BC Cancer, FPON created an elective framework, learning objectives and compilation of GPO preceptors with the opportunity distributed to UBC's Department of Family Medicine Curriculum lead, UBC Family Medicine site directors across the province and UBC Family Medicine residents. FPON also helped identify additional GPO preceptors for Focused Family Practice exposures for second-year UBC medical students. Last term, 15 medical students were exposed to GPO work as a career choice.

As part of ongoing GPO stabilization work, FPON also collected feedback through a GPO Knowledge Updating Survey

on current and preferred methods of knowledge updating. One of the outcomes is the recommendation of implementing educational webcasts specifically for GPOs. As part of the accreditation process, FPON's working group will meet early next month to choose the most relevant topics for the upcoming year.

FPON also provides educational opportunities for primary care providers; this past year was no exception. Since the last iteration of FPON's Fall 2024 Journal, complimentary accredited webcasts for primary care providers included Oncofertility, Ovarian Cancer for Primary Care Providers, Endometrial Cancer, Thyroid Cancer: What Family Physicians Need to Know When Caring for Their Patients and Post-Breast Cancer Treatment Follow-up Care. Join us for the April 17th webcast on Localized Prostate Cancer Management and Surveillance. The webcast working group met last month and decided on the most relevant topics for the upcoming year. Planning for the upcoming webcast year is underway with potential topics including Reducing Ovarian Cancer Risk: Discussing Opportunistic Salpingectomy with Patients in Primary Care (May 22nd), Trauma Informed Cancer Care, Breast Cancer Screening, Recognizing Hematologic Malignancies in Primary Care, Testicular Cancer: Essentials for Primary Care Providers, and more. Visit fpon.ca to register to our upcoming webcasts.

Lastly, registration is open for BC Cancer's FPON Education Day for Primary Care. This April 5th event will be highlighting Gastrointestinal (GI) Cancers. With approximately 6,000 cases of GI cancers diagnosed in BC each year, this half-day virtual event will offer an update on the presentation, workup and management of 5 major GI cancers, including colon, rectal, pancreatic, hepatocellular and gastroesophageal cancers. It will also include an update on colorectal cancer screening. Each interactive session will engage participants with 30 minutes of brief, practical knowledge followed by 15 minutes of Q&A. Register [here](#).

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

BC Cancer's FPON Education Day for Primary Care – Gastrointestinal Cancers

April 5 | Virtual Conference

Session highlights:

- Update on 5 major GI cancers, including colon, rectal, pancreatic, hepatocellular and gastroesophageal cancers
- Insights on colorectal cancer screening.

Registration



To register and learn more, please scan the QR code or contact cpd.info@ubc.ca.



Ovarian Cancer: Overview and Case Studies

By Andrea Cheung, GP in Oncology,
Gynecologic Oncology, BC Cancer Vancouver
Kimberly Stewart, Gynecologic Oncology,
BC Cancer Vancouver



Ovarian cancer is the 7th most common malignancy in British Columbia, with an incidence rate of 12.2 cases per 100,000 individuals. Despite accounting for only 23% of gynecologic cancers, ovarian cancer is responsible for 47% of gynecologic cancer-related deaths, with a 5-year survival rate of 40-50%.¹ Ovarian cancer is staged using the FIGO ovarian/fallopian tube/primary peritoneal guidelines.² The majority of

ovarian malignancies (90%) originate from epithelial cells, with subtypes including high-grade serous, endometrioid, clear cell, low-grade serous, and mucinous carcinomas. The remaining 10% arise from germ cells (5%) or sex cord-stromal cells (5%).¹ This article presents three clinical scenarios to illustrate the spectrum of ovarian malignancies. www.bccancer.bc.ca/books/PublishingImages/ovary-epithelial-carcinoma/histological-classification-of-ovarian-carcinoma/Five%20major%20types%20of%20EOC.jpg



Dr. Andrea Cheung Dr. Kimberly Stewart

Case 1: Postmenopausal Woman with Pelvic Mass

Lisa, a 57-year-old postmenopausal woman, presented for routine cervical screening. A firm 12-week-sized pelvic mass was palpated during her exam. She reported mildly increased urinary frequency, but denied other symptoms like early satiety, night sweats, bowel changes, or postmenopausal bleeding.

Investigations

An ultrasound revealed a complex ovarian mass with solid and cystic components, thick septations, and papillary excrescences, raising suspicion for malignancy. Tumour markers showed slightly elevated CA 125 (42) and CA 19-9 (51), CA 15-3 and CEA normal. A CT scan showed no extra-ovarian disease. Lisa was referred to Gynecologic Oncology for further evaluation.

CA 125 is the most commonly used tumour marker for epithelial ovarian cancer, however, it is nonspecific. It can be elevated in benign gynecologic conditions such as endometriosis, menstruation, and pelvic inflammatory disease. It can also be elevated in non-gynecologic conditions that cause peritoneal inflammation such as liver cirrhosis or diverticulitis.³ CEA, CA 19-9, and CA 15-3 can be associated with ovarian cancers, but also GI tract, pancreatic, gallbladder, and breast cancers respectively.

Management

Lisa underwent surgery, which included a total abdominal hysterectomy, bilateral salpingo-oophorectomy, and omentectomy.

The goals of surgery include diagnosis (to determine if the mass is benign, borderline or malignant), staging (the extent of disease), and treatment (remove all visible disease). Adjuvant treatment recommendations are based on histology, stage, and residual disease.

Final pathology diagnosed a **Stage 1A mucinous ovarian cancer**. There was no residual disease at the end of surgery. Lisa did not require adjuvant treatment, and surveillance was advised.

The follow-up plan includes clinical review of symptoms and physical exams (pelvic, including pelvi-rectal) every 3-4 months for the first two years, every 6 months from years 3-5, and annually thereafter. Routine imaging is not recommended unless symptoms arise. Monitoring CA 125 is controversial, as it may lead to early chemotherapy without survival benefits and potential quality-of-life impacts.⁴ In practice, the decision to monitor CA 125 is often made by the oncology provider in discussion with the patient.

Case 2: A Young Woman with an Abdominopelvic Mass

Sandy, a 27-year-old woman, presented with irregular menstrual periods and a self-palpated abdominal mass that has been gradually enlarging over the past two months. On physical examination, a 20-week-sized mass was palpated.

Investigations

An ultrasound and tumour markers were ordered. The pelvic ultrasound revealed a 15 cm complex ovarian mass. Tumour markers were: AFP: 29,000 (elevated); LDH, β -hCG, CEA, CA 19-9, CA 125, and CA 15-3: Normal.

Ovarian germ cell tumours (GCTs) often secrete hormones or proteins that can indicate specific histologic components. In this case, the elevated AFP level is highly suggestive of a yolk sac tumour, a subtype of malignant GCT.

	AFP	β -hCG	CA 19-9	LDH
Dysgerminoma	-	-	-	+
Choriocarcinoma	-	+	-	-
Immature teratoma	-	-	+	-
Endodermal sinus tumor	+	-	-	-
Embryonal carcinoma	+	+	-	-

"Tumour Markers and Germ Cells Tumours of the Ovary"
(Eskander et al, 2012)⁵

Management

Sandy was urgently referred to gynecologic oncology. She has fertility-sparing surgery, including a laparotomy, unilateral salpingo-oophorectomy, and omental biopsy, within two weeks. The final histopathology confirmed a **Stage 1A pure yolk sac ovarian tumour**.

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Ovarian Germ Cell Tumours

Ovarian GCTs are rare, representing approximately 5% of all ovarian cancers. They predominantly affect young women between the ages of 10 and 30.⁶ These tumours can progress rapidly, underscoring the importance of early referral and intervention. Fortunately, 60-70% of GCTs are diagnosed at Stage I, and early-stage tumours are highly curable, with survival rates ranging from 95% to 100%. Fertility-sparing surgery is often the first-line treatment, with adjuvant chemotherapy (e.g., bleomycin, etoposide, and cisplatin) considered in certain cases.

Case 3: Advanced Ovarian Cancer in a 65-Year-Old Patient

Francesca, a 65-year-old woman, presented with bloating, abdominal distension, and early satiety. On exam, her abdomen was distended with a positive fluid wave, suggestive of ascites.

Investigations

An urgent CT scan revealed a 10 cm complex adnexal mass, peritoneal deposits, omental cake, and ascites, concerning for metastatic disease. She was referred to BC Cancer, where tumour markers and an image-guided biopsy of the omental cake were requested.

For tissue diagnosis, image-guided biopsy of extra-ovarian lesions is preferred, avoiding ovarian biopsy to prevent tumour spillage. Additional diagnostic steps may include endometrial biopsy in cases of abnormal uterine bleeding or thickening, GI endoscopies if a gastrointestinal primary is suspected, or cytology of peritoneal or pleural fluid. These measures ensure accurate diagnosis while minimizing risks such as disease upstaging and help differentiate ovarian cancer from other malignancies.

Tumour markers showed elevated CA 125 at 550 and CA 19-9, CEA and CA 15-3 are normal. The image-guided biopsy of the omental mass confirms high-grade serous carcinoma of gynecologic origin. Based on imaging and histopathology, Francesca is diagnosed with Stage IIIC high grade serous ovarian cancer.

Management

Francesca's case was triaged by a multidisciplinary team, including Gynecologic Oncology (for surgery) and

Medical Oncology (for systemic therapy), to determine the optimal treatment plan.

Randomized clinical trials found that clinical outcomes for patients treated by primary debulking surgery followed by chemotherapy versus neo-adjuvant chemotherapy followed by interval debulking surgery have similar clinical outcomes for advanced ovarian cancer. Neo-adjuvant chemotherapy is associated with lower rates of complications, higher rates of debulking, and less bowel resections.⁷ The decision depends on factors such as histology, stage, disease distribution, and the patient's clinical status.

Francesca's disease was deemed unresectable upfront, so she begins chemotherapy with carboplatin and paclitaxel. After three cycles, she achieves a partial response and becomes a candidate for interval debulking surgery. Following surgery, she completes the remaining three cycles of chemotherapy. Genetic testing reveals a germline BRCA2 mutation, and she is started on maintenance therapy with olaparib. One year post-treatment, Francesca was doing well under routine follow-up.

Carboplatin and paclitaxel are standard first-line chemotherapy agents for advanced epithelial ovarian cancer, typically administered in six cycles every three weeks. Common short-term toxicities include neuropathy, hair loss, nausea, vomiting, constipation, and hypotension, while long-term neuropathy may persist after one year.

PARP inhibitors (e.g., olaparib, niraparib) are maintenance therapies given for advanced stage (III/IV) patients with significant benefit in tumours with BRCA mutations or homologous repair deficiency (HRD), taken orally for 2-3 years or until progression or intolerance. Side effects include nausea, fatigue, anemia, thrombocytopenia, neutropenia, GI upset, hypertension (specific to niraparib), and rare risks of MDS/AML.⁸

Conclusion

Ovarian cancer encompasses a range of histologies and clinical presentations but often, early symptoms tend to be non-specific including abdominal discomfort, dyspepsia, bloating, and changes in bowel and bladder function. Unfortunately, two-thirds of patients present with advanced disease. A multidisciplinary approach and tailored treatment strategies are critical for improving outcomes.

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Opportunistic Salpingectomy (OS): Counseling your patients about ovarian cancer risk reduction during another abdominal surgery

By Gillian E. Hanley, Department of Gynaecology and Obstetrics, Division of Gynaecologic Oncology, University of British Columbia
Heather Stuart, Department of Surgery, Division of General Surgery, University of British Columbia
Scott Cowie, Department of Surgery, Division of General Surgery, University of British Columbia; President, General Surgeons of BC



Drs. Gillian E. Hanley, Heather Stuart and Scott Cowie

Ovarian cancer remains a lethal cancer that is commonly diagnosed in advanced stages and for which we have no effective screening. There are five histologic types of epithelial ovarian cancer, the most common of which is high-grade serous

carcinoma. We now have 20 years of science showing that this cancer most commonly arises in the fimbriated end of the fallopian tube.^{1,2} In 2010, British Columbia's ovarian cancer research team (OVCARE) launched a province-wide strategy, asking gynaecologists to discuss removal of the fallopian tubes as an alternative to simple tubal ligation, or during hysterectomy for benign conditions, while leaving the ovaries intact. Preserving ovaries prevents premature surgical menopause in younger patients and reduces complexity of the surgery for postmenopausal patients.

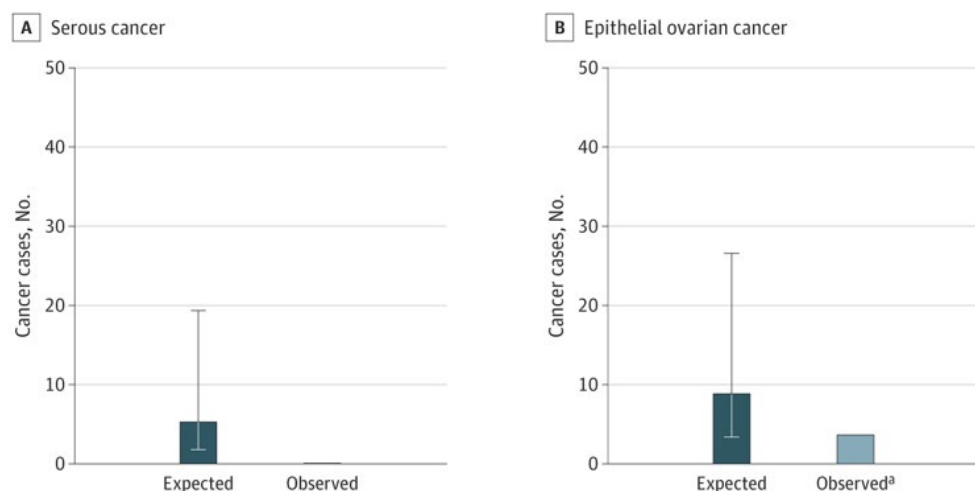
While risk-reducing bilateral salpingo-oophorectomy remains the recommended prevention strategy for individuals at high hereditary ovarian cancer risk because of *BRCA1*, *BRCA2*, *RAD51C*, *RAD51D*, *BRIP1* and *PALB2* pathogenic variants, 80% of ovarian cancers arise

in individuals without these hereditary variants and so removal of fallopian tubes during other pelvic surgeries, known as opportunistic salpingectomy (OS), has become an ovarian cancer prevention opportunity for the general population. The name reflects the fact that OS is based on taking advantage of another surgical opportunity to also provide ovarian cancer risk reduction and does not correspond to a patient's risk for ovarian cancer. Research has shown that OS during gynecologic surgery is safe with no differences in major surgical outcomes, including overall hospital readmission rates, blood transfusions, and post-operative complications,^{3,4} as well as no difference in minor complications.⁵ We also have data, from over 25 000 women in BC who underwent OS with a nearly 10 year follow up period, that strongly suggests that OS reduces the risk for developing serous ovarian cancer (figure 1). <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2788855?resultClick=3> More recent, currently unpublished, data estimates the risk reduction associated with OS is ~80% for serous ovarian cancer compared with women whose fallopian tubes were not removed.

These findings, along with data showing that we are doing significantly fewer hysterectomies and tubal sterilizations over time, make it important that we expand opportunities for patients to have their fallopian tubes removed. Specifically, rates of tubal sterilizations (ligations and salpingectomies combined) decreased by 35% between 2002 and 2022. However, we also have good preliminary data from a clinical trial of OS during colorectal surgery that shows it is feasible and safe to include in general pelvic surgeries ([clinicaltrials.gov #NCT05300711](https://clinicaltrials.gov/ct2/show/study/NCT05300711)). Many patients participating in the trial consulted their family physician prior to deciding whether to undergo OS during their pelvic surgery. This project to expand OS to general surgery is being supported by the Specialist Services Committee through the Perioperative Clinical Action Network. To help in these

Figure 1.
Outcomes From Opportunistic Salpingectomy for Ovarian Cancer Prevention

JAMA Netw Open. 2022;5(2):e2147343. doi:10.1001/jamanetworkopen.2021.47343



Numbers of Expected vs Observed Cancers in the Opportunistic Salpingectomy Group Error bars denote 95% CIs.

^aDenotes a cell size of less than or equal to 5, not an exact number.

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efforts, we hope that family physicians will share the ovarian cancer prevention benefits of salpingectomy with their patients who will, or are likely to, undergo abdominal surgery soon. Discussion points may include:

- OS dramatically reduces risk for serous ovarian cancer (~80% risk reduction),⁶
- There is no increase in perioperative or postoperative complications in an extensive body of literature for OS during gynecologic surgery.^{3,5}
- There was no increase in complications in preliminary data from a clinical trial of OS during colorectal surgery,
- There is no evidence of earlier menopause or use of hormone replacement in patients choosing OS.⁷⁻¹²
- OS is not for patients who desire, or may desire, a future pregnancy, as it is a sterilization procedure.

Patients should be counseled to discuss with their surgeon whether

OS is right for them during abdominal surgery. Patients may also come to their family physician to help them make the decision of whether to undergo OS during their abdominal surgery after they have been counseled by their surgeon. In both cases, family physicians play an important role in increasing awareness and educating patients on ovarian cancer risk reduction.

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2025 World Congress of Prehabilitation and Perioperative Medicine

Save the date



2025 World Congress of Prehabilitation and Perioperative Medicine

November 3–5, 2025
Hyatt Regency, Vancouver BC, Canada

The Perioperative Clinical Action Network (PCAN) is proudly funded by the Specialist Services Committee, dedicated to uniting multidisciplinary surgical team members across British Columbia. The PCAN Summit 2025 will be a two-part event, kick starting with an evening PCAN Innovation Project Showcase on November 2, 2025 followed with a full day PCAN Summit on November 3, 2025. <https://doctorsofbc.jotform.com/250487893787883>

PCAN Summit 2025 is partnering with the World Congress of Prehabilitation and Perioperative Medicine on November 3 – 5, 2025. British Columbian Physicians who register for the PCAN Summit 2025 will be reimbursed 50% on the World Congress of Prehabilitation and Perioperative Medicine registration fee. <https://worldprehabcongress2025.com>

Mainstream Testing – The New Standard for Point-of-Care Hereditary Genetic Testing

By Kasmintan Schrader, Co-Medical Director, Hereditary Cancer Program, BC Cancer
Jennifer Nuk, Practice Leader, Genetic Counselling, Hereditary Cancer Program
Michelle Post, Nurse Coordinator, Hereditary Cancer Program
Carol Cremin, Genetic Counsellor, Hereditary Cancer Program



Carol Cremin, Jennifer Nuk, Michelle Post and Intan Schrader

In BC, healthcare providers outside of the Hereditary Cancer Program (HCP) can order multi-gene hereditary cancer panel testing through CGL (BC Cancer, Cancer Genetics and Genomics Laboratory) for eligible patients* and disclose the results to their patients. This approach, known as “mainstreamed” hereditary cancer testing, significantly shortens time to results, reduces burden and barriers to patients, and increases genetic testing access and targeted treatment options for a more diverse patient population when compared to traditional referrals to the Hereditary Cancer Program for pre-test genetic counselling and testing.

Since mainstream testing started in August of 2022, over 3700 cancer patients have had this “point-of-care” genetic testing. The new streamlined pathway enables timely identification of hereditary cancer risks within primary care and oncology networks. Patients with positive test results are reflexively referred into the HCP by the Cancer Genetics Laboratory’s genetic counsellor team for more information and support about their result, implications for them, and for their family. The HCP team will also coordinate cascade testing for relatives.

Discussing Mainstream Hereditary Cancer Testing with Patients Can Be Done in a Few Minutes. The best time to offer the option is at the time of diagnosis.

Ready to mainstream your first case?

Healthcare providers are encouraged to review the latest updates regarding hereditary cancer testing on the HCP website or they can find them on the test requisition form located on the Cancer

Genetics and Genomics Laboratory website. Make sure you complete all required areas on the requisition and give it to your patient-inform them they can take the requisition to any lab and that no additional preparation is required.

To help you explain testing and results to patients, the CGL website has a pre-test information sheet and results information sheets for positive results and negative or variant of uncertain significance (VUS) results. The Hereditary Cancer Program website mainstreaming resource section has additional resources, slides and a 3- minute video for patients.

If you have any questions about mainstreamed hereditary cancer testing, please contact us at genetic.counsellor@bccancer.bc.ca.

Current indications for Mainstreamed Genetic Testing

Breast Cancer

- HER2-negative breast cancer, eligible for Olaparib
- Breast cancer diagnosed at age 50 or younger
- Two primary breast cancers at any age
- Triple-negative (ER-, PR-, HER2-) breast cancer
- Male breast cancer

Ovarian, fallopian tube, or peritoneal cancer (non-mucinous epithelial, including STIC)

Pancreatic Cancers

- Pancreatic ductal adenocarcinoma (confirmed or suspected)
- Pancreatic neuroendocrine tumor

Metastatic Prostate Cancer

Medullary Thyroid Cancer

Paraganglioma & Pheochromocytoma

Renal Cancer diagnosed at age 47 or younger

Ashkenazi Jewish Heritage with a personal or family history of:

- Breast cancer
- Ovarian cancer
- Pancreatic cancer
- High-grade prostate cancer

Confirmation of a pathogenic variant result in a known hereditary cancer gene (requires inclusion of relevant report(s) from tumor testing or clinical trial/research testing) or Testing that has been approved by the Hereditary Cancer Program

Note: These criteria are subject to change. Providers should always refer to the latest Hereditary Cancer Panel requisition for up-to-date eligibility guidelines. Please ensure all fields on the mainstream requisition are completed.

Key Points to discuss with your patients about Mainstream Testing

- Mainstream testing is a genetic test to learn if your cancer is hereditary
- Genetic test results may determine if there are additional risks for you, guide your treatment, and have implications for cancer risks as well as early cancer detection/prevention options for your relatives.
- Genetic test results are sometimes uncertain (unknown if a variant of uncertain significance is associated with cancer)
- If there is a finding suggesting or

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Mainstream Genetic Testing

Key Points



PATIENTS

A genetic test is a blood test to learn if your cancer is hereditary.

Genetic test results may:

- determine additional primary cancer risks for you.
- guide the treatment of your cancer.
- have implications for cancer risk in your relatives.

Genetic test results are sometimes uncertain (unknown if a genetic finding is associated with cancer).

Genetic information is protected by the Genetic Non-Discrimination Act (GNDA July 2020).



PATIENT VIDEO

PROVIDERS

- ✓ Check if your patient is eligible and review provider resources.
- ✓ Review Key Points with your patient*.
- ✓ Complete, sign and print the requisition for your patient.
- ✓ Review the report.
- ✓ Disclose the result to your patient and give the relevant information sheet.
- ✓ Document your discussion in the EMR.

Patients with a finding of concern will be offered a genetic counselling appointment.



PROVIDER RESOURCES



MAINSTREAM REQUISITION

*If a discussion takes longer than a few minutes, consider referring patient to the Hereditary Cancer Program for pretest counselling.

QUESTIONS?

Contact Us!

Email: genetic.counsellor@bccancer.bc.ca
Phone: 604-877-6000 EXT 67-2094



Version: February 2024

Mainstream Testing
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confirming a hereditary cancer risk, you will be offered the option to speak to a genetic counsellor at the Hereditary Cancer Program for additional information and support for you and your relatives

- Blood samples can be drawn at any lab
- Samples may be sent to a laboratory in the USA for analysis
- Genetic information is protected by the Genetic Non-Discrimination Act (GNDA July 2020)
- From the time of blood draw, results are typically available within 6 to 8 weeks, though this may vary based on lab processing times.
- Results should be returned by the ordering physician.

Although providers and patients can cover the key points in 5 minutes, a minority of patients may have additional questions or concerns or require additional support to make an informed decision about genetic

testing; you can refer them to HCP though this will increase the time to receive results.

Other Practical Considerations for Healthcare Providers

- For all other patients who do not meet the mainstreaming criteria, a referral to the Hereditary Cancer Program (HCP) is required.
- If wanting to check the status of an HCP Referral, reach out directly to the Hereditary Cancer Program at hereditarycancer@bccancer.bc.ca.
- Patients who are not eligible for publicly funded testing but still wish to proceed can explore self-funded genetic testing options. If a patient undergoing private pay testing is found to have a pathogenic variant, they should be referred to the Hereditary Cancer Program for further discussion and evaluation.
- For additional details on the mainstreamed genetic testing pathway, healthcare providers can access the HCP and CGL websites.

Using the above tips, you can incorporate mainstream genetic testing into your practice, increasing opportunities for targeted treatments for your patients as well as early cancer detection and intervention for families at risk for hereditary forms of cancer.

Point of care genetic testing improves patient uptake, equitable access to genetic testing and reduces delays in hereditary cancer assessment and management. By empowering healthcare providers to directly order multi-gene panel testing, more patients can receive timely and appropriate genetic assessments, ultimately improving cancer prevention and personalized treatment options. Staying updated on evolving eligibility criteria and leveraging HCP support ensures a seamless and effective integration of genetics into routine cancer care.

Carol Cremin holds a Health Research BC Michael Smith Health Professional Investigator Award related to her work in mainstream testing in hereditary cancer.

Management of Thyroid Nodules with Ultrasound

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

Thyroid nodules are a common finding in clinical practice, with up to 50% of the population having at least one nodule



Dr. Kenneth Wong

present on ultrasound imaging. Although most nodules are benign and do not require treatment, the management of thyroid nodules remains a challenging task for healthcare

providers. To help guide the management of thyroid nodules, the Thyroid Imaging Reporting and Data System (TIRADS) was developed as a standardized system for classifying and risk stratifying thyroid nodules based on ultrasound features. Multiple TIRADS versions have been developed but the most commonly used in British Columbia is the ACR-TIRADS (Figure 1) introduced in 2017 with a 89.62% specificity.

TIRADS is a valuable tool for healthcare providers as it provides a standardized approach to the management of thyroid nodules. TIRADS classifies nodules into different categories based on their ultrasound characteristics, such as size, shape, echogenicity, and the presence of microcalcifications (Figure 2). By assigning a TIRADS category to a nodule, healthcare

providers can more accurately assess the risk of malignancy and determine the appropriate management strategy for each nodule. The published malignancy rates range between 0.3% for TR1 to 35% for TR 5 (Figure 3). This information can be valuable in guiding the appropriate management strategy for each nodule, such as determining the need for biopsy or surgery, based on the individual patient's risk factors and preferences.

By assessing the ultrasound characteristics of a nodule and assigning it a TIRADS category, healthcare providers can more confidently determine whether a nodule requires further evaluation, such as biopsy or surgery, or if it can be safely monitored over time. This can help reduce unnecessary biopsies and surgeries for benign nodules,

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Figure 1. ACR TI-RADS

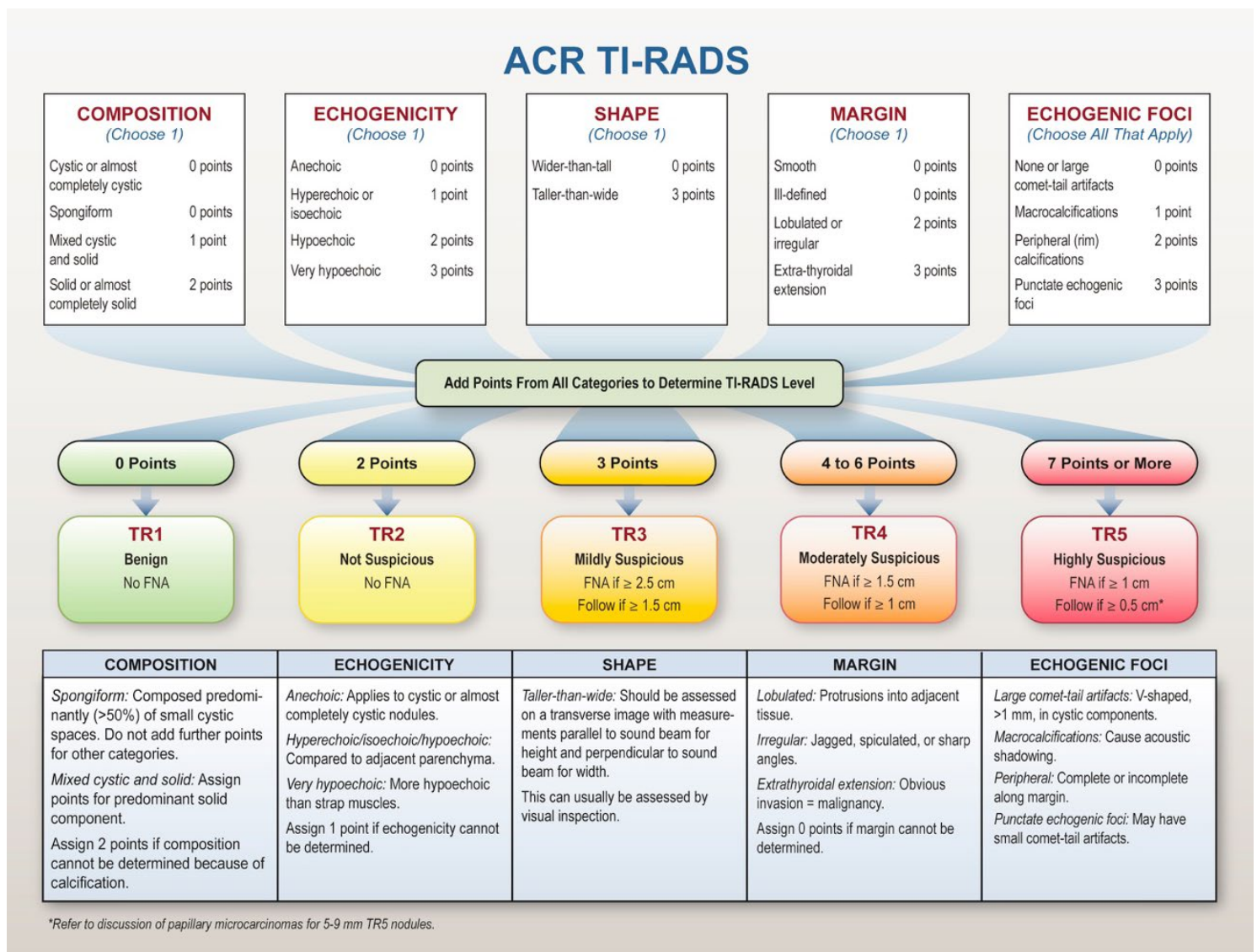


Figure 2: Ultrasound Characteristics to Assess

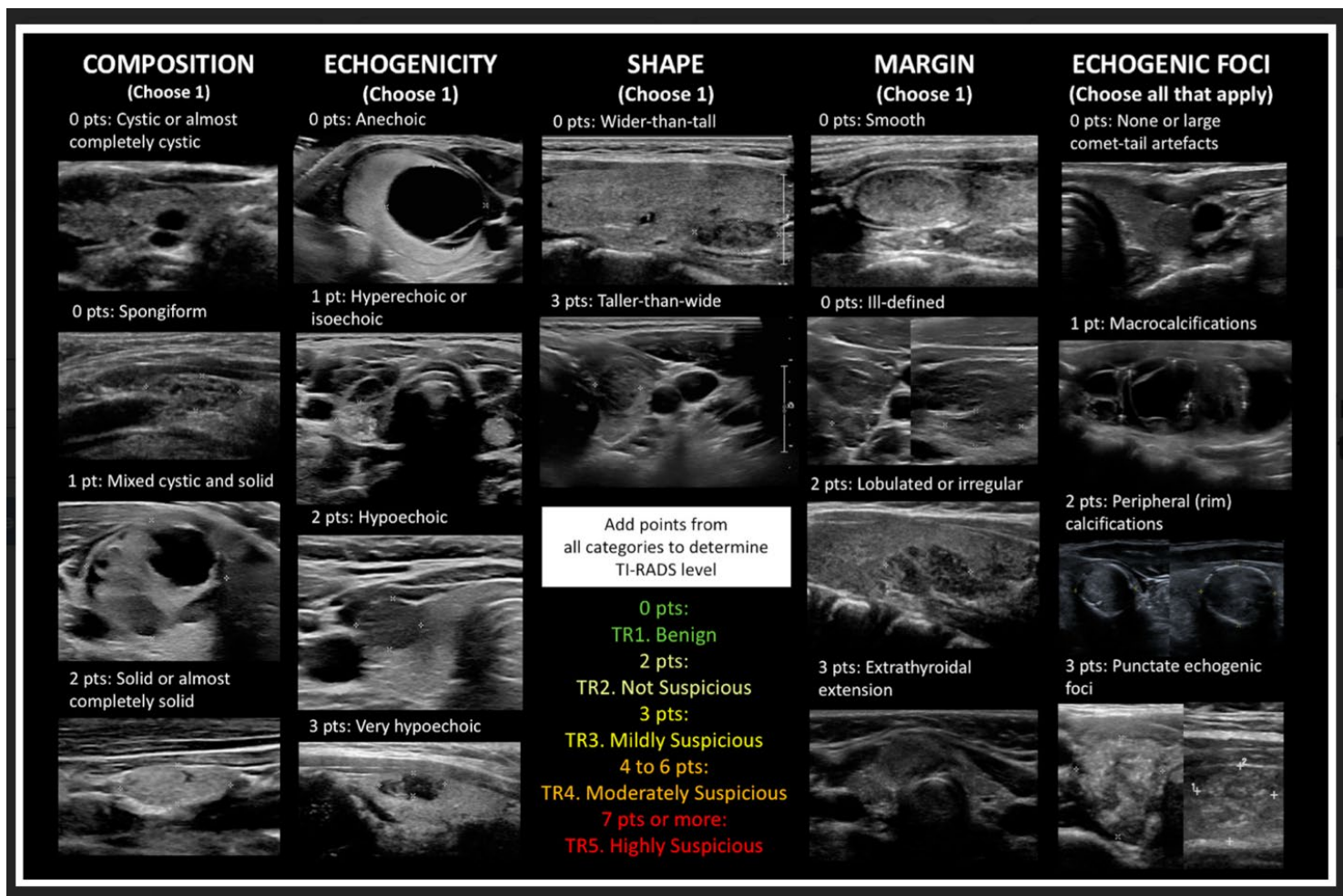


Figure 3: Malignancy Rates According to TIRADS Categories

- **TR1:** 0.3%
- **TR2:** 1.5%
- **TR3:** 4.8%
- **TR4:** 9.1%
- **TR5:** 35%

Figure 4: Recommendations According to TIRADS Category

- **TR1:** no FNA required
- **TR2:** no FNA required
- **TR3:** ≥ 1.5 cm follow up, ≥ 2.5 cm FNA
 - follow up: 1, 3 and 5 years
- **TR4:** ≥ 1.0 cm follow up, ≥ 1.5 cm FNA
 - follow up: 1, 2, 3 and 5 years
- **TR5:** ≥ 0.5 cm follow up, ≥ 1.0 cm FNA
 - annual follow up for up to 5 years

Management of Thyroid Nodules continued from page 11

while ensuring that malignant nodules are promptly identified and treated. Follow up recommendations include no follow up imaging or biopsy required to follow up yearly with ultrasound imaging to biopsy (Figure 4).

Ultrasound guided fine needle aspiration of thyroid nodules is offered by most in hospital ultrasound departments in British Columbia. Generally three 25 gauge fine needle aspirates are obtained and sent to pathology for analysis. The efficacy of FNA biopsy in diagnosing thyroid nodules has been well-documented in medical literature, with a reported sensitivity of 83% and specificity of 92%.

Another advantage of using TIRADS for the management of thyroid nodules is its ability to provide a standardized reporting system that can be easily communicated between healthcare providers. By using a common language and classification system

for thyroid nodules, healthcare providers can more effectively communicate the risk of malignancy and the recommended management strategy for each nodule, which can help improve patient care and outcomes.

Despite the benefits of using TIRADS for the management of thyroid nodules, there are also some limitations to consider. TIRADS is based on ultrasound characteristics alone and does not take into account other factors, such as patient demographics, family history, or other clinical factors that may influence the risk of malignancy. Therefore, it is important for healthcare providers to use TIRADS in conjunction with their clinical judgment and the individual patient's risk factors to make informed decisions about the management of thyroid nodules.

The management of thyroid nodules using TIRADS is a valuable tool for healthcare providers in assessing the risk of malignancy and determining the appropriate management strategy for each nodule. By

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Fertility Preservation for Individuals Starting Cancer Treatment

By Kristin Marr MD FRCPC
BC Children's Hospital,
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Cancer treatments can often impact the ability of children, adolescent and young adults (AYA – anyone diagnosed with cancer between 15 and 39 years of age) to have children in the future. Despite this, a 2023 survey reported only 52% of AYA with cancer have a conversation with their health care provider (HCP) about how treatment will



Drs. Kristin Marr, Alannah Smrke and Cheryl Heykoop

impact fertility, and only 13% are referred for further counseling or to undergo fertility preservation.¹

Any HCP can start the conversation and make appropriate referrals to a fertility clinic. The possible loss of fertility can be a difficult and deeply personal topic for an AYA facing a new diagnosis of cancer. We have a moral and ethical duty to ensure that our patients are supported to understand the impact of treatment on their fertility and preservation options before they begin treatment. Further, AYAs themselves want to be informed about how fertility can affect treatment. Patients should be not be excluded from counseling or referral based on age, gender, culture, sexual orientation, medical status, geography or any other factor.

How does cancer treatment affect fertility?

Cancer treatment (systemic therapy, radiation, surgery, bone marrow transplantation) can sometimes cause damage and loss of spermatogenesis cells for individuals identified as male at birth (AMAB); or damage and loss of ovarian reserve for

those identified as female at birth (AFAB). For AMAB individuals, this can mean reduced sperm count or permanent azoospermia. For AFAB individuals, it can result in earlier age of menopause and a shorter window of fertility potential. The degree of impact depends on the type, intensity and age at treatment. Published guidelines or online risk calculators can help to individualize your discussion with the patient. (<https://fertilitypreservationpittsburgh.org/fertility-resources/fertility-risk-calculator/>).²⁻⁶

What options are available to preserve fertility?

For AMAB individuals, **sperm banking (sperm cryopreservation)** prior to start of treatment is standard of care. This requires collection of semen sample at or near a fertility clinic, as the specimen must be processed within an hour of collection. Often, there is a low sperm count in patients with new diagnoses of cancer, and multiple collections may be recommended.

For AFAB individuals, **egg or embryo freezing (oocyte or embryo cryopreservation)** are considered standard of care. Individuals must be able to safely delay cancer treatment, as the process takes at least 2 weeks. It requires

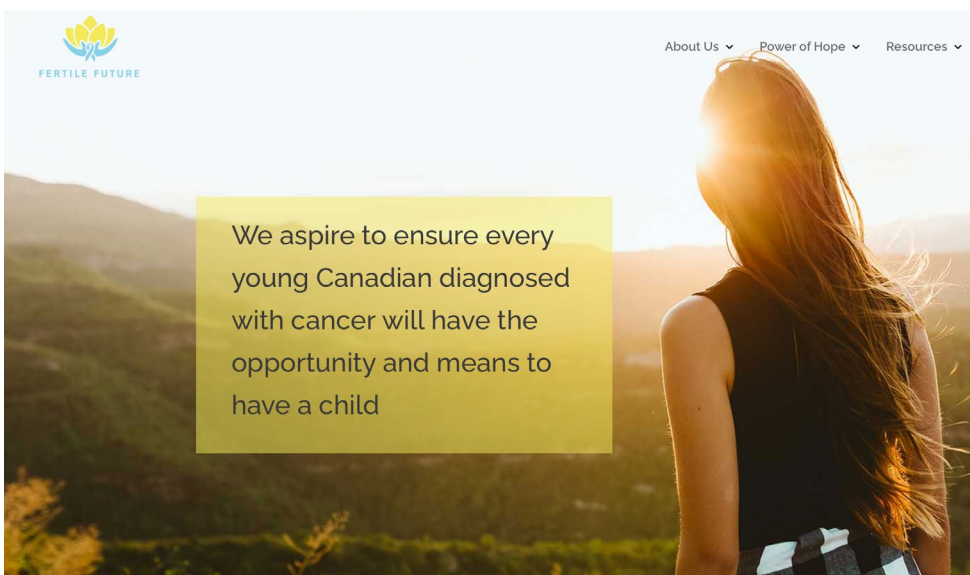
injections with medications to stimulate oocyte maturation, and transvaginal procedures at the fertility clinic to monitor and harvest. For embryo freezing, the same initial process occurs, and the oocytes are then fertilized and frozen with sperm from a partner or a donor through in vitro fertilization (IVF). Rates of successful pregnancy from IVF are now similar with use of preserved oocytes or embryos; and pregnancy rates depend on numbers of oocytes/embryos frozen.

Ovarian tissue cryopreservation is a newer modality that is now also considered a standard practice, but has limited availability in BC. One ovary is removed by laparoscopic surgery and cryopreserved in small segments of tissue that can produce oocytes. This does not require medication or delay in start of treatment. After treatment is complete, the segments of ovarian tissue are surgically re-inserted and tissue resumes hormone production and oocyte maturation.

How do I refer patients for counseling or to preserve fertility in BC?

A referral can be made to a Reproductive Endocrine and Infertility (REI) specialist at one of two full service private fertility clinics in BC. Currently, those clinics are **Pacific Centre for Reproductive Medicine** and **Olive Fertility Centre**. Both are located in the Greater Vancouver region with satellite offices throughout BC. Fertility preservation

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*Fertility Preservation
continued from page 13*

appointments are triaged as urgent and patients are often seen within a few days. At consultation, the REI team will review the patient's history and anticipated treatments to determine options for preservation. Virtual consults are available.

What about costs?

The initial consultation is covered and available to everyone. In BC, most fertility preservation services are not covered by MSP, and are offered at only at private fertility clinics. General costs can be found on the clinic websites. The costs may be discounted by the clinic for AYA with cancer. Patients may also be eligible for financial support through charitable foundations, such as Fertile Future's Power of Hope Program (www.fertilefuture.ca).

Options after cancer treatment

It may not be possible to undergo fertility preservation before start of cancer treatment. At least one year after completing treatment, the patient can undergo semen analysis or assessment of ovarian reserve and fertility potential. For individuals AFAB, there may be options for preservation after treatment.

The impact of cancer treatment is not limited only to loss of sperm or oocytes. There may

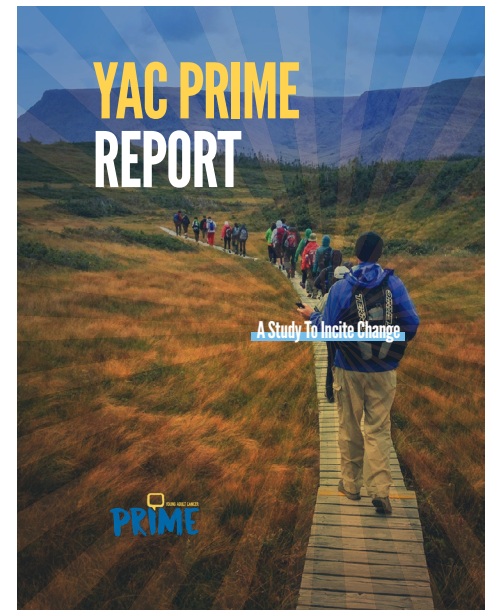
be damage to the reproductive organs, or reduced hormone production. For individuals AFAB, this can impact ability to conceive, carry a pregnancy or have a higher risk of complications for the baby. We recommend evaluation and discussion with a specialist if a patient shares any concerns regarding sexual health.

Future measures

There are ongoing efforts in the province to improve access to counseling, referrals and fertility preservation services. Visit the BC Cancer Adolescent and Young Adult website for additional resources, referral forms, or how to access supports (www.bccancer.bc.ca/health-info/adolescent-young-adult).

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*Management of Thyroid Nodules
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classifying nodules based on ultrasound characteristics and assigning them a TIRADS category, healthcare providers can more confidently differentiate between benign and malignant nodules, stratify the risk of malignancy within different TIRADS categories, and communicate effectively with other healthcare providers about the recommended management strategy for each nodule. While TIRADS has its limitations, when used in conjunction with clinical judgment and the individual patient's risk factors, it can be a valuable asset in the management of thyroid nodules.

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AI in Literature Searching: Useful but Not Always Reliable

By Elena Popova,
BC Cancer Clinical Librarian

Artificial intelligence is rapidly advancing as a transformative force driving efficiency and decision-making across various fields. By automating tasks, analyzing vast amounts of data, and providing insights that would be difficult or time-consuming for humans to achieve alone, AI is revolutionizing processes. In medicine, AI assists in diagnosing diseases, personalizes treatment plans, and accelerates drug discovery. Additionally, AI is increasingly used for literature searching by healthcare professionals as well as patients seeking information on health concerns.



Elena Popova

The Promise of AI in Medical Literature Searching

AI can significantly enhance medical literature searching by quickly analyzing extensive databases of scientific articles, clinical trials, and guidelines. AI-powered tools can filter results based on publication date, study type, or relevance. They can summarize lengthy research papers, identify patterns across multiple studies, and facilitate knowledge synthesis – saving valuable time for busy clinicians and researchers.

Clinicians appreciate AI for its ability to conduct rapid literature searches, keeping them informed about the latest research, without requiring hours of sifting through medical journals.

Patients love AI for its convenience, accessibility, and capacity to provide quick health insights. Chatbots help patients find information about their health concerns, offering guidance on when to seek medical attention.

Sounds wonderful, right? Unfortunately, not if you look carefully.

The Problem: AI-Generated Hallucinations

Despite its advantages, AI-generated literature searching is not without risks. The BC Cancer library often receives article citations from patients and clinicians, only to discover that some citations do not actually exist. These fabricated references often appear highly

credible, with scientific-sounding titles describing the topic of research, sometimes complete with detailed abstracts. But no such articles can be found in any medical journals or databases.

We call those “hallucinated citations”, and the tell-tale signs include “Jane Doe” or “John Smith” on the list of authors, the word “summary” instead of “abstract”, and, occasionally, a non-existent journal title, although real journal titles are often used.

Why AI Generates Fake Papers

AI chatbots generate fake citations & articles based on predictive models rather than retrieving verified data. There are several factors that contribute to this:

- **Predictive nature** – AI models generate text based on patterns in their training data. When asked for a citation, they may “guess” a plausible-looking reference rather than retrieving a real one.
- **Lack of database access** - Most chatbots do not have direct access to academic databases like PubMed. Instead of retrieving real references, they fabricate ones that seem credible.
- **Mimicking citation styles** - AI recognizes that research papers often include citations, so it generates something that “looks right” based on common formatting (e.g., author names, journal titles, dates).
- **Confabulation** - AI models sometimes mix and match real sources with fake details, creating citations that appear valid but don’t exist.
- **Overconfidence in responses** - Chatbots are designed to sound authoritative, which can lead them to provide answers - even incorrect ones - confidently.

The issue extends beyond individual citation errors. AI bots are known to generate entire research papers that appear legitimate but are entirely fabricated, complete with citations, abstracts, and even experimental results. Some AI-generated articles cite non-existent studies or mix real sources with fictitious ones, making them difficult to verify at first glance.

The issue is exacerbated when AI-powered

search engines index such fabricated content, presenting it alongside legitimate research. Some predatory journals and unscrupulous individuals exploit AI to mass-produce pseudo-academic papers, further polluting scientific databases.

This problem is particularly concerning when AI-generated health advice influences self-diagnosis or treatment choices. Patients who rely on hallucinated citations may develop false confidence in unproven treatments or dismiss critical medical guidance. Likewise, healthcare professionals who unknowingly reference fabricated studies risk basing clinical decisions on inaccurate information.

The Role of Librarians and Best Practices for Verifying Sources

Librarians have long been aware of the issue and are trained to critically evaluate information and recognize AI generated inconsistencies. Librarians play a crucial role in identifying and mitigating AI-generated misinformation. However, all healthcare professionals, researchers and patients must also adopt a skeptical and discerning approach when using AI-generated search results.

Best practices for verifying AI-generated resources include:

- Cross-checking citations in trusted databases such as PubMed.
- Verifying journal titles and author names to ensure authenticity.
- Looking for inconsistencies in formatting, terminology and content.
- Consulting medical librarians for expert assistance in evaluating resources.

When used wisely, AI is a transformative tool enhancing human capabilities and driving progress. While AI cannot replace professional medical advice, it can enrich patient education, improve healthcare efficiency, and support clinicians.

As AI continues to evolve, the medical community must remain vigilant and ensure that the pursuit of efficiency does not compromise the integrity of medical knowledge.

BC Cancer is a program of Provincial Health Services Authority (PHSA). While many generative artificial intelligence (GenAI) applications are currently undergoing testing and evaluation at PHSA, GenAI is not yet formally approved for use at PHSA.

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Making progress through B.C.'s 10-Year Cancer Action Plan

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 **B.C.'s 10-Year Cancer Action Plan** was officially released in February 2023, BC Cancer has made noteworthy progress in launching innovative initiatives and expanding access to cancer care for people throughout the province.

Over the past two years, we have seen meaningful progress in our work to expand operating hours, optimize the delivery of care and grow our clinical and support teams. Since April 1, 2023, we have hired 143 new physicians, including 97 oncologists, and 232.4 FTE regional cancer centre staff including nurses, radiation therapists and pharmacists.

A snapshot of our latest data shows that these efforts have resulted in a continuous increase in the total number of appointments and treatments provided. Comparing volumes for the 13 periods ending Jan. 30, 2025 to the previous 13 periods, we saw a:

- 4% increase in new patient consults for medical oncology

*AI in Literature Searching
continued from page 15*

Resources

BC Cancer Library guide: Artificial Intelligence in Healthcare. (<https://bccancer.libguides.com/AiHealth>)

University of East London: Using AI For Literature Searching. (<https://libguides.uel.ac.uk/artificial-intelligence/literature-searching>)

- 3.7% increase in new patient consults for radiation oncology
- 11.8% increase in follow-up appointments for medical oncology
- 7.2% increase in follow-up appointments for radiation oncology

According to period 11 data for the fiscal year 2024/2025 (Jan. 3 - 30, 2025):

- Total systemic therapy treatment visits are up 7.9% compared to last year and 89.6% of new patients are seen within four weeks.
- Total radiation therapy (RT) new patient starts are up 4.8% compared to last year and 89.1% of patients are receiving radiation therapy (RT) within four weeks.

We've also improved access to leading edge treatments and expanded specialized services. In March 2024, the province announced expanded access to **Chimeric Antigen Receptor T-Cell (CAR-T) therapy** for people with certain advanced leukemias and lymphomas. This was followed, in July, with the announcement of additional **gynecological oncology surgical services**, including new surgery and treatment services in Kelowna and Surrey and an expansion of the existing services in Vancouver and Victoria.

Finally, work continues to bring cancer care closer to home with the planning of **four major redevelopment projects**. In the coming decade, we plan to open new cancer

centres in Surrey, Burnaby, Kamloops, and Nanaimo. Each project is at a different stage:

- Design and construction is now underway on the new Surrey hospital and BC Cancer Centre.
- Planning is progressing to add a regional cancer centre as part of the second phase of the Burnaby Hospital redevelopment project.
- Qualified teams have been invited to participate in the request for proposals stage to design and build a new cancer centre at Royal Inlands Hospital in Kamloops.
- Design is underway and preliminary site work has started for a new cancer centre at Nanaimo Regional General Hospital.

The advances we've shared today are just a few highlights of the work underway and the impact it is having on the lives people with cancer in B.C. These gains are made possible thanks to the commitment of our care teams and our partners. We are grateful to our long-service staff and new colleagues who are embracing this period of growth and change while continuing to deliver compassionate patient care.

There is much work still to be done. Watch for updates as we continue this work to improve the experience of our patients and their loved ones throughout the cancer journey.

Educational opportunities provided by BC Cancer's Family Practice Oncology Network

made possible in part thanks to the support of the **BC Cancer Foundation**

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CANCER** FOUNDATION



Upcoming Webinar:

Lung Cancer Screening in BC: Eligibility, Diagnosis, and Follow-Up Care

By the end of this session*, you will be able to:

- Describe the risks and benefits of lung cancer screening
- Describe eligibility criteria and assessment process for the lung cancer screening program and know when to refer patients
- Describe the process of lung cancer diagnosis
- Manage incidental findings with patients
- Discuss smoking cessation with patients
- Access related resources for patients and providers

*CME Credits: Earn up to 1.5 Mainpro+/MOC Section 1 Credits



Speakers:

Panelists:

- Dr. Stephen Lam, Medical Director, Lung Screening, BC Cancer
- Dr. John Mayo, Medical Imaging Director, Lung Screening, BC Cancer
- Rableen Nagra, Operations Director, Lung Screening, BC Cancer

Moderator: Dr. Cathy Clelland, Medical Director, Primary Care, BC Cancer

Date and Time:

May 7, 2025

6:30-8:00 pm PST (30-minute presentation with 1-hour question-and-answer period)

Registration Required:

Register online at <https://bit.ly/lung-screening-webinar> or scan the QR code to access the registration page.

Prior to the webinar, you will receive an email from UBC CPD with the connection details.



Advance Care Planning: A Life Planning Process

By Dr. Cathy Clelland, Medical Director,
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Back in 2012, I wrote an article for the BC Medical Journal on advance care planning. This was around the time the provincial government implemented the use of the “My Voice: Expressing My Wishes for Future Health Care Treatment” advance care planning guide. At that time in my longitudinal family practice, I was trying to manage patients’ multiple medical conditions while balancing the various clinical practice guideline recommendations against the individual patient needs and wishes. Unfortunately, the discussion of advance care planning was time consuming and often only dealt specifically with the patient’s feelings about “code status”. Often this only came once the patient had experienced a significant episode of decompensation (a sentinel event) that resulted in a trip to the ER or even hospitalization.

Recently after the death of an elderly family member, I have had the opportunity to ponder on the status of advance care planning since that time. While he had an “Advance Directive” at home, nothing was included in the broader health system. Luckily, his wishes were shared with the emergency responders and the ER, and he passed comfortably with family by his side.

Advance care planning should be an ongoing, iterative process whereby a capable adult discusses his or her beliefs, values, wishes, or instructions for future health care with trusted family and health care providers. Advance Care Planning is part of life planning, in line with determining guardians for dependents, planning for retirement and preparing a will. Planning for future health and personal care needs will help family and friends at a time when they may be overwhelmed by emotions.

The “My Voice” tool was updated in 2020 and is still available to help guide conversations and includes information on the various components of an Advance Care

Plan that results from the planning process. It includes information on:

Advance Directives – A legal document that records instructions for accepting or refusing specific health-care treatments at a time when health care is needed but the patient is not capable of providing consent.

Substitute Decision Maker (SDM) – Someone who makes health-care decisions when a patient cannot provide consent. In BC, a Substitute Decision Maker can be appointed by the patient (a Representative), by the court (Committee) or identified by the health-care provider from a list (Temporary Substitute Decision-maker, TSDM).

Representation Agreement – A legal document in which someone is named as a Representative, to make personal-care and health-care decisions when these can not be made by the patient. There are two types of Representation Agreements:

- Section 9 (Enhanced) – can be used by a capable person to name a Representative to make personal-care and health-care decisions, including decisions about life support and life- prolonging treatments.
- Section 7 (Standard) – can be used by a person with lessened capability to appoint a Representative who can provide routine management of the person’s financial affairs, legal affairs, personal care, and minor and major health care.

This guide is available in many different languages along with videos and brochures that can be found at: www2.gov.bc.ca/gov/content/family-social-supports/seniors/health-safety/advance-care-planning

With the expanding and aging of our population, and the ever-increasing advances in medicine around cancer, cardiac and other conditions, we are seeing more patients with multiple co-morbidities facing significant challenges in their day to day lives. When caring for patients with multiple co-morbidities and/or cancer, with modern electronic medical records, providers can develop a registry identifying patients who would benefit from reviewing not only the medical management of their conditions, but also the bigger picture of health status and goals of care at an earlier stage along the healthcare journey. The use of the “My Voice” tool can make both patients and providers feel more comfortable discussing patient

wishes. At this stage, they are likely more able to make decisions about what they would agree to, or not, if in the future they are not able to decide for themselves. Primary care providers are also able to better access appropriate services to support patients in their home through better coordination of care with specialist colleagues as well as in their local Primary Care Network.

When I have opened these conversations, I have found that patients and their families have reported back that this reassures them that I am interested in their point of view and that they have confidence their wishes are going to be honoured. Many are relieved that the topic has been raised, and I feel I am able to provide better care for my patient and their family, as they progress along their life journey. Now, more than ever, we need to raise awareness of expanding chronic disease management to include the advance care life planning process. These plans need to be incorporated into a person’s health record in a way that no matter where they access care, all can be aware of the individuals wishes and goals of care.

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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BC Cancer provides specialized cancer care services to communities across British Columbia, the territories of many distinct First Nations. We are grateful to all the First Nations who have cared for and nurtured this land for all time, including the xʷməθkʷəy̍əm (Musqueam), Skwx̱wú7mesh Úxwumixw (Squamish), and səliłwətał (Tsleil-Waututh) First Nations on whose unceded and ancestral territory our head office is located.



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