

## Oncologic emergencies: two to consider

By Dr. Devin Schellenberg,  
Department Head, Radiation Oncology,  
BC Cancer – Surrey

Cancer Care Ontario (2004) defines an oncologic emergency as “a medical condition arising from a reversible threat to organ function requiring radiation treatment within a few hours of diagnosis”. This article briefly discusses two types of oncologic emergencies: Spinal Cord Compression (SCC) and Superior Vena Cava Obstruction (SVCO).

### Spinal Cord Compression:

SCC results from either a primary cancer or metastatic lesion causing damage to the spinal cord or cauda equina leading to reduced or impaired neurologic function. SCC can occur at any location along the spine, but most commonly occurs in the thoracic spine (~60%) followed by the lumbar spine (~30%). Though it can result from any primary cancer, statistically SCC is found most often in multiple myeloma, lung, prostate, breast, and kidney cancers.

There are multiple mechanisms leading to SCC. Tumors can fracture or expand the vertebral body resulting in bone

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Dr. Devin Schellenberg

## Hidden Cancers: Pancreatic Ductal Adenocarcinoma

By Dr. Simon D. Baxter, Medical Oncologist,  
BC Cancer – Kelowna

### Introduction

Gastrointestinal (GI) malignancies comprise a wide variety of common cancers. In 2015 in British Columbia, GI malignancies were the most common cancers diagnosed in men, and the second most common cancers diagnosed in women.<sup>1</sup> Cancers of the colon and rectum are by far the most common of these malignancies, and can be diagnosed early with screening tests, or can present with bowel symptoms such as rectal bleeding, change in bowel movements, or abdominal pain. Other GI malignancies can present with obvious symptoms such as dysphagia, or jaundice, but more often, symptoms are vague and nonspecific such as abdominal or back discomfort, weight loss or decrease in appetite. Early diagnosis of GI malignancies remains critical to ensuring good outcomes. These cancers can, however, sometimes evade diagnosis, or present at an advanced stage.

This second part of our “Hidden Cancers” series explores the early signs and symptoms of pancreatic ductal adenocarcinoma (PDAC). Pancreas cancer is the 12th most

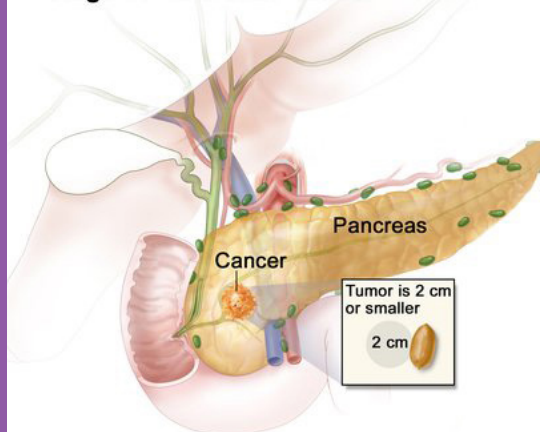
commonly diagnosed cancer in Canada, but is the 4th most common cause of cancer death. This is due to its high metastatic potential, and the unfortunate fact that it presents as stage IV disease in over 50% of cases.<sup>2</sup> Therefore, the only chance of curing pancreas cancer depends on catching it early, which relies on the prompt recognition of more subtle symptoms by an astute physician.

### Diabetes and Pancreatic Ductal Adenocarcinoma – Cause or Consequence?

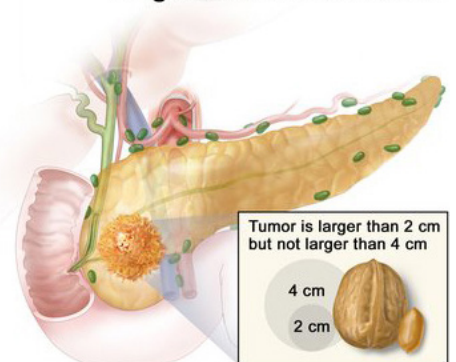
A 66-year-old retired police officer presented with abdominal and back discomfort. His past medical history was notable for type-2 diabetes (T2DM) and hypertension. Due to relatively acute onset of symptoms, a CT scan of abdomen and pelvis was requested, which revealed a pancreatic tail mass measuring 2.8 cm. An MRI of the pancreas confirmed this lesion as malignant, and did not demonstrate any invasion of nearby structures or any regional lymphadenopathy. CT scan of the chest confirmed no distant metastases, and his tumour marker CA 19-9 was within normal range. A successful

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### Stage IA Pancreatic Cancer



### Stage IB Pancreatic Cancer



# Top tips for talking to patients living with a serious illness

By Dr. Pippa Hawley, Medical Leader, BC Cancer Pain & Symptom Management/Palliative Care Program



Photo: BC Cancer Foundation

Dr. Pippa Hawley

## 1. Any conversation is better than none.

Use Buckman's SPIKES mnemonic (or the Serious Illness Conversation Guide) if you need help starting. Both are Googleable.

## 2. Don't pussy-foot around.

People don't always understand

Wish you had a "What to Expect When You're Expecting-like" book for the other end of life? Check out *"Lap of Honour: a no fear guide to living well with dying"* by BC's Gaby Eirew and Dr. Pippa Hawley. *Lap of Honour* demystifies all the subjects patients might be frightened of with a little humour thrown in – "a practical, unsentimental roadmap to get the necessary things done, and to then have as much fun as possible" ([www.lapofhonourbook.com](http://www.lapofhonourbook.com) also available at all BC Cancer libraries, <https://libraries.phsa.ca>).

euphemisms, and using them can have unintended consequences. It makes sense to "hope for the best whilst being prepared for the rest". Separate Specialist Palliative Care from Hospice Care, and from a Palliative Approach to Care (<https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/palliative1.pdf>), which all health care

professionals should be comfortable in providing to their patients. Patients themselves are never "Palliative", but they may have palliative care needs.

## 3. It's a process: you don't have to complete the conversation all in one visit, and there is never a "right" time.

If you think it's the right time, you are probably too late, but better late than never. People may ask the same questions again and again. That doesn't mean they are in denial. They are just hoping that your answers might change, which sometimes they will. Sometimes patients are actually asking you something different to what you think they are.

## 4. Be open to any questions: if you don't know the answers, you can find out.

Questions like:

- How long have I got?
- What is dying actually like?
- How will I tell my kids?
- How can I make a legacy document? (What is a legacy document?)
- Can I stay at home?
- Can I travel?
- How will I pay for everything?
- What is advance care planning?
- What is a living will?
- Should I avoid certain foods?
- What about medical cannabis?
- Will I suffer?

And of course, don't forget "What if I get better?"

## 5. Palliative Care is a team sport.

Many, if not most, of the concerns your patients confronting mortality might have will be well outside your areas of expertise. Create a team for each patient to meet their psychological, spiritual, practical and social needs.

Contact Dr. Pippa Hawley at [phawley@bccancer.bc.ca](mailto:phawley@bccancer.bc.ca)

## BC Cancer breast screening – provider to patient reminder initiative



The BC Cancer Breast Screening Program is continuing a successful patient reminder letter initiative in your community. In 2018, this initiative resulted in

18,702 letters mailed to overdue patients across the province generating 7,513 screening appointment bookings – an excellent 40% response rate.

Primary care providers with more than three overdue patients will receive a package of

personalized letters reminding their overdue patients that they are due for screening. Providers are asked to sign or stamp your name to the enclosed letters. The program will mail these letters to your patients at no cost to the provider.

All patients identified are between the ages of 50 to 69 and are overdue for a screening mammogram. This project is voluntary; the program asks all providers who do not participate to destroy any unsigned letters. The program will continue to recall patients as per the screening guidelines.

Only 53% of British Columbian women age 50-69 are getting regular mammograms. This provincial participation rate is well below the national target of 70%. This initiative is based on a 2014 study<sup>1</sup> conducted by the program that found that a signed

family provider reminder letter is an effective intervention to improve screening return rates in overdue women. The randomized study showed that adding letters from physicians to standard postcard reminders resulted in 50% more of the recipients coming in for mammograms, compared with the number of women who were only sent reminders directly from the program.

If you should have any questions about this initiative please contact Caitlyn Schwab, Breast Screening Program Coordinator, at [screeningadmin@bccancer.bc.ca](mailto:screeningadmin@bccancer.bc.ca) or (604) 877-6000 ext. 4840.

- 1 E. Chan et al. (2014). Improving screening mammography return rates in overdue women: A randomized study of signed reminder letters from family physicians. *J Clin Oncol* 32, 2014 (suppl 26; abstr 1).

*Hidden Cancers: Pancreatic Ductal Adenocarcinoma continued from page 1*

distal pancreatectomy and splenectomy was performed, with surgical pathology confirming an early stage pancreatic ductal adenocarcinoma measuring 4.0 cm (pT2) with all 13 lymph nodes negative for malignancy (pN0), and no obvious intra-abdominal metastases seen (M0). After 10 weeks of recovery, he agreed to receive 6 months of adjuvant chemotherapy in an attempt to eradicate micrometastatic disease and increase his chance of cure.

Soon after his surgery, his glycemic control worsened, which was not unexpected following pancreas surgery. With a plasma glucose of 24 mmol/L, he was promptly prescribed insulin. In retrospect, he had a relatively new diagnosis of diabetes. Two years prior, his fasting plasma glucose (FPG) measured 9.6 mmol/L, and his Hemoglobin A1c (HbA1c) measured 7.0% meeting the diagnostic criteria for diabetes.<sup>3</sup> Leading up to his cancer diagnosis, his glycemic control worsened, with HbA1c increasing to 8.1%,

and his random plasma glucose exceeded 11 mmol/L on more than one occasion.



Dr. Simon D. Baxter

**Was his underlying diagnosis of diabetes a cause or consequence of his pancreatic cancer?**

Diabetes is an exceedingly common condition, making it difficult to draw connections to cancer. It is known, however, that long-standing T2DM, along with obesity, and chronic

pancreatitis are risk factors for PDAC. It is postulated that high levels of intra-pancreatic insulin, and increased production of advanced glycation end-products may play a role in carcinogenesis. At the same time, PDAC might promote the development of diabetes. For patients with PDAC and a diagnosis of diabetes, their diabetes was often diagnosed within two years prior to their cancer diagnosis. In some cases, resection of PDAC has resulted in resolution of recently-diagnosed diabetes, suggesting a paraneoplastic phenomenon. Of course,

differentiating T2DM from diabetes due to pancreatic exocrine disease (T3cDM) is not always possible. The combination of deteriorating glycemic control and weight loss would be atypical for T2DM alone, and could represent an early sign of PDAC.<sup>4</sup>

By understanding, and recognizing the risk factors of PDAC, it may be possible to achieve early diagnosis. For patients with long standing, or recently diagnosed diabetes, paying close attention to other subtle symptoms such as changes in glycemic control, weight loss, or abdominal or back pain might help find the needle in the haystack.

Contact Dr. Simon Baxter at [simon.baxter@bccancer.bc.ca](mailto:simon.baxter@bccancer.bc.ca)

see References on page 13

**Patient Resources:**

- Pancreatic Cancer Canada: [www.PancreaticCancerCanada.ca](http://www.PancreaticCancerCanada.ca)
- Pancreas Centre BC: [pancreascentrebc.ca](http://pancreascentrebc.ca)

*Oncologic emergencies continued from page 1*

protruding posteriorly into the spinal canal; the tumor itself can expand beyond the bone into the spinal canal; and the tumor can grow either within the canal or between nerve roots to infiltrate the canal. Regardless of the mechanism, the pathophysiology of SCC is a disruption of blood flow as the mass effect within the constrained canal results in increased arteriolar and venous pressure impairing oxygen delivery leading to spinal cord edema, ischemia, and then infarction.

Clinically, the most common initial symptom is back pain. Metastatic bony disease should be ruled out in any known cancer patient with new onset, localized, and/or increasing back pain especially if radicular. Unfortunately, patients most often present only after neurological symptoms, usually weakness, have developed. Urinary retention and bowel dysfunction rarely occur in isolation and are generally late symptoms.

If SCC is suspected, emergent CT, or preferably MRI, imaging should be carried

out. Dexamethasone at up to 16 mg/day should be started immediately and neurosurgery and/or radiation oncology should be contacted. Generally, young fit patients with only 1 or 2 levels of disease or SCC resulting from bony fragments within the canal would be surgical candidates; whereas, those with poorer prognosis or more widespread disease are treated with radiation.

**Superior Vena Cava Obstruction**

SVCO is less common than SCC and occurs due to extrinsic compression or intrinsic obstruction, including clotting of the SVC. The root cause is often small cell lung cancers, non-small cell lung cancers or lymphomas (but SVCO can occur from benign, primary or metastatic disease in the upper mediastinum). The common symptoms are the "3 Ds" – Dilated chest wall vessels, Distension with edema of face and arms, and Dyspnea.

Usually there is ample time to establish a diagnosis and initiate treatment. High dose

steroids should be avoided until pathologic confirmation of the diagnosis, as steroids can result in false negative lymphoma biopsies. The prognosis and treatment options depend on the underlying pathology. Lymphomas and germ cell tumors will respond rapidly to chemotherapy and often no other treatment is needed. Lung cancers are less responsive and require localized radiation +/- systemic therapy. Stenting can be used as clinically indicated.

View the full webcast on this topic at [www.fpon.ca](http://www.fpon.ca) – Continuing Medical Education.

Finally, keep in mind other oncologic emergencies/urgencies that require urgent radiation oncology consultation: a tumor obstructing an airway, a tumor causing massive bleeding, a tumor obstructing an organ (e.g. ureteric obstruction) and brain metastases leading to herniation.

Contact Dr. Devin Schellenberg, [dschellenberg@bccancer.bc.ca](mailto:dschellenberg@bccancer.bc.ca)



# Insight and follow-up care for colorectal cancer patients

By Dr. Howard Lim, Medical Oncologist,  
BC Cancer – Vancouver

## Care for patients with cancer has become more complex.

### Fertility:

Chemotherapy and/or cancer can impact fertility in younger patients. Having a discussion about family planning prior to initiation of the therapeutic strategy for patients is important. For patients with rectal cancer, some patients have radiation to the pelvis to decrease local regional recurrence. Given that the uterus is in the field, pregnancy is not an option. The ovaries may also be in the field which could lead to early menopause. Referrals to fertility specialists should be considered for patients who may wish to pursue options such as sperm banking, egg harvesting or embryo storage.

View the full webcast on this topic at [www.fpon.ca](http://www.fpon.ca) – Continuing Medical Education.

### For patients who have completed adjuvant chemotherapy:

An active surveillance strategy should be considered in patients who have completed chemotherapy or are at high risk of relapse. In patients who may not be able to tolerate future surgery or systemic therapy, it is reasonable to follow them symptomatically and consider an appropriate work-up as needed and depending on the patient's condition. Localized relapses of colorectal cancer, such as in the lung or liver, can still be considered for resection of distant metastatic disease for curative intent.

The surveillance strategy over 5 year consists of:

- CEA, physical exam every 3-6 months for a total of 5 years;
- If there is a rise in the CEA – consider repeat in CEA monthly to monitor trend. If increasing – repeat imaging or contact oncologist;
- Colonoscopy should be performed within a year of the diagnostic scope and then as dictated by the

endoscopist – normally every 3-5 years, but sometimes sooner if polyps are found; and

- Imaging: previously CT Chest/Abdomen/Pelvis every year for the first 3 years, now 2 within the first 3 years (so can consider 1 at year 1, then 1 at year 3).

Upon completion of 5 years, no further bloodwork or imaging should be performed routinely unless symptomatic. Ongoing colonoscopies should still be performed, as guided by the endoscopist.

### Diet:

The majority of patients are iron deficient due to chronic bleeding from the primary tumor. Iron replacement therapy should therefore be considered. There are numerous fad diets that can be detrimental as they overemphasize certain food groups to almost toxic levels – e.g. Gershon diet-induced carotenemia. Another common misconception is that sugar feeds the growth of cancer. There is an association of increased risk of cancer in patients with diets high in refined sugars typically due to obesity, which is a risk factor for cancer. More information at [www.bccancer.bc.ca/nutrition-site/Documents/Health%20professional%20resources/FAQ\\_Sugar\\_and\\_Cancer.pdf](http://www.bccancer.bc.ca/nutrition-site/Documents/Health%20professional%20resources/FAQ_Sugar_and_Cancer.pdf)

The current recommendation is to consider a balanced diet based on a person's culture and beliefs. Patients can also call 811 to speak with an oncology nutritionist.

### Exercise:

Physical activity is encouraged during and after treatment and directed by the patient's tolerance. The amount of physical activity is dependent on surgical recommendations.

Side-effects, such as neuropathy or fatigue, may limit some activities. Having said that, some patients find the diagnosis of cancer motivating to start new physical activities. Patients can call 811 to speak with a physiotherapist and discuss exercise options. There are also exercise clinical trials available through BC Cancer.



Dr. Howard Lim

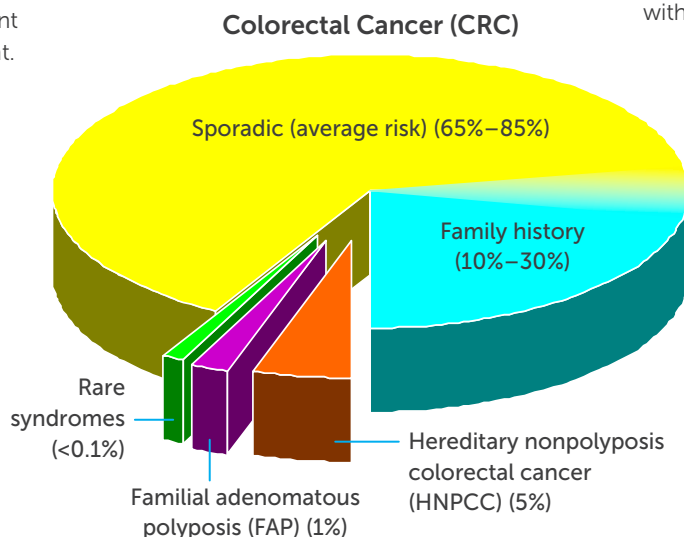
### Hereditary Factors:

Lynch Syndrome is the most common hereditary cause of colorectal cancer. As genetic testing becomes more available, population-based screening will become an option to help identify people at risk who may want to consider prophylactic options. Consumer testing is available; but there can be risks with respect to the validity of these tests as well as privacy issues. Patients should be aware of possible insurance implications of consumer driven genetic testing. Patients with a family history can self-refer to BC Cancers' Hereditary Cancer Program to determine if they qualify for genetic testing.

### Financial Issues:

Although the cost of chemotherapy, radiotherapy and surgery are covered, supportive medications are not. Patients with extended health insurance may have coverage of these medications. In addition, the majority of patients and/or caregivers will require extended absence from work which can result in a loss of income. While disability insurance may help with these expenses, financial hardship may still result. BC Cancer's Patient and Family Counselling can advise on resources and support.

Contact Dr. Howard Lim,  
[hlim@bccancer.bc.ca](mailto:hlim@bccancer.bc.ca)



# Dawson Creek GPOs focus on expertise and patient care

Cancer patients in Dawson Creek hit the trifecta with their General Practitioner in Oncology (GPO) team: Drs. Cornelia Popa, Anton Venter, and Aous Alshehabi. Graduates of BC Cancer's GPO Education Program, each brings a unique perspective to the provision of community-based cancer care. All possess an impressive dedication to their patients, a desire to share their knowledge with colleagues, and an appreciation for team-based care.

## Dr. Cornelia Popa

One would be hard-pressed to find a more multi-skilled family physician than GPO, Dr. Cornelia Popa. Practising in Dawson Creek since 2014, Dr. Popa administers chemotherapy and supports cancer patients and their families one day per week.

Other days, she runs a full-service family practice, serves as the physician at the local Mental Health and Addictions Clinic, as a GP-anaesthetist at Dawson Creek & District Hospital, and works evenings in the Emergency Department.

"I didn't like the feeling of not knowing what to do when cancer patients came to the Emergency Department. The most significant gain from the GPO Education Program is in-depth perspective to deal with complex oncology issues. I'm now comfortable seeing cancer patients, and addressing their symptoms and side-effects caused by various treatments. My 'spidey senses' for cancer are always up now, and I apply this knowledge across all my medical roles.

"The team approach to cancer care is important to me as well. We work closely with the oncologists at BC Cancer – Prince George, for example, who serve as an amazing resource and who always respond to our inquiries in record time. We have an outstanding team of nurses at our local cancer clinic, too. They know the drugs even

better than we do and are a pleasure to work with.

"It's our patients, however, who impress me most. Going through cancer treatment can be a full-time job and I learn so much from their perspective; what they will endure to live longer and how little it can take to be happy. Providing high quality cancer care in Dawson Creek saves our patients a 5-hour drive to Prince George in often wintry conditions. Plus we get to know each other well and there's comfort in that for everyone."

## Dr. Anton Venter

GPO, Dr. Anton Venter is all about the patient/physician relationship – the opportunity for the physician to serve as a focus of support coordinating patients' cancer care, managing their co-morbidities, and ensuring their psychosocial needs are met. He is well positioned for this role having served 17 years as a family physician in Chetwynd, before moving to Dawson Creek in 2016 and adding a one-day per week GPO role to his responsibilities.

"The variety of this role suits me well from the administration of systemic therapy, to the provision of palliative and in-patient care, to the opportunity to serve as an oncology resource for my family physician and primary care colleagues throughout the area. The team approach that we take toward cancer care is hugely important to me – everyone who works in our clinic is caring, patient focussed, and committed to providing the best care possible.

"The most rewarding aspect of the GPO role for me though is the opportunity to



Dawson Creek GPO trio and their nursing colleagues: (back row, left to right) Pam Hanna, Dr. Aous Alshehabi, Leslie Joy, Dr. Cornelia Popa, Lynn Moch, and (front) Dr. Anton Venter

assess each patient as a whole, to spend the time needed on a one-to-one basis, and not to feel rushed. Trying to effectively see 50-60 patients a day doesn't work for me. Oncology provides great opportunity to focus on the patient/physician relationship and to truly enhance patient care."

## Dr. Aous Alshehabi

The newest member of the Dawson Creek GPO trio is Dr. Aous Alshehabi who will complete the GPO Education Program this summer. In addition to his soon-to-be GPO role, Dr. Alshehabi runs a full service family practice, works shifts in the hospital's Operating Room, and provides home-based care for elderly patients.

"Both the city and my practice are expanding and the GPO Education Program is enabling me to provide care at the next level, ensuring that cancer patients receive seamless, high quality care right where they live. Our physicians and nurses are passionate about maximizing patient comfort and providing the best care possible. I'm excited to be a part of this team."

Contact Dr. Cornelia Popa,  
[dr.c\\_popa@live.ca](mailto:dr.c_popa@live.ca)

Contact Dr. Anton Venter,  
[dr.antonventer@gmail.com](mailto:dr.antonventer@gmail.com)

Contact Dr. Aous Alshehabi,  
[draous2010@gmail.com](mailto:draous2010@gmail.com)

## Next GPO education course begins September 9, 2019

The GPO Education Program is an eight-week course offering rural family physicians and newly hired BC Cancer GPOs the opportunity to strengthen their oncology skills and knowledge, and provide enhanced cancer care. The program covers BC and the Yukon and includes a two-week Introductory Module held twice yearly at BC Cancer – Vancouver followed by 30 days of flexibly scheduled clinical rotation. Full details at [www.fpon.ca](http://www.fpon.ca)



# Immunotherapy: coming of age

By Dr. Brad Nelson, Director and Distinguished Scientist, BC Cancer's Deeley Research Centre, Victoria

There is a lot of buzz about cancer immunotherapy these days, but where does the field actually stand, and what does the future hold? Immunotherapy refers to a suite of strategies designed to help the immune system recognize and destroy cancer. As a starting point, it's important to recognize that scientists have unequivocally demonstrated that the immune system does indeed recognize cancer as "foreign". The best evidence for this is the phenomenon of "tumour-infiltrating lymphocytes" (TIL). As the name suggests, tumours can be infiltrated by T cells and other lymphocytes. TIL are seen in about 50% of cancer patients at the time of primary surgery; therefore, they reflect the spontaneous (unassisted) immune response to cancer. The presence of TIL is strongly correlated with increased survival for the vast majority of cancer types. So, even without deliberate immunotherapy, the immune system seems to help a substantial proportion of cancer patients.

View the full 2018 webcast on this topic at [www.fpon.ca](http://www.fpon.ca) – Continuing Medical Education.

Importantly, the past decade has brought two major breakthroughs in the immunotherapy field. The first is called "checkpoint blockade". This derives from discoveries in the 1990s of several inhibitory signaling pathways that block TIL from killing tumor cells. Two prominent pathways involve CTLA-4 and PD-1, which are inhibitory receptors on the surface of T cells. Antibodies against CTLA-4 (e.g. Ipilimumab) or PD-1 (e.g. Nivolumab, Pembrolizumab) "take the brakes off" T cells, enhancing their ability to kill tumour cells. This class of agents has swept through the oncology landscape, transforming the treatment of cancers ranging from metastatic melanoma to lung cancer to Hodgkin Lymphoma. Accordingly, the 2018 Nobel Prize in Medicine was awarded to Drs. James Allison and Tasuku Honjo for fundamental research into the CTLA-4 and PD-1 pathways and their role in anti-tumour immunity. This success notwithstanding, many common cancers (e.g. breast, prostate) have low



Victoria Hodgson manufacturing CD19 CAR-T cells in the Deeley Research Centre's Conconi Family Immunotherapy Lab in preparation for a clinical trial.

response rates to today's checkpoint strategies. Encouragingly, researchers have identified many other checkpoint pathways that show promise in animal models and/or early-stage clinical trials. Indeed, there are currently over 1,000 active clinical trials in this space, so the future looks bright for this approach.

Chimeric Antigen Receptor (CAR) T cells represent a second major breakthrough in the immunotherapy field. This is a sophisticated treatment that involves genetic engineering of T cells. In essence, a CAR is a human-made molecule that has an extracellular antibody domain fused to intracellular signaling domains from the T cell antigen receptor. The most successful CARs to date are targeted against the CD19 antigen on B cell leukemias and lymphomas. Viral vectors are used to introduce the CAR gene into a patient's T cells, causing the CAR to be expressed on the cell surface. The resulting "CAR-T cells" are now hardwired to recognize tumour cells expressing the desired antigen (e.g. CD19). CAR-T cells are administered intravenously (typically in a bone marrow transplant unit) following a lymphodepleting chemotherapy regimen. Once in the bloodstream, CAR-T cells are able to "seek and destroy" cancer cells expressing their target antigen. They are called living drugs,

as they retain the ability to proliferate and survive long-term in patients. Consequently, only one dose is typically required.

CD19-directed CAR-T cells have achieved up to 90% complete response rates in adult and pediatric B-ALL, and approximately 50% objective response rates in diffuse large B cell lymphoma. FDA and Health Canada approval has been granted for two commercial CD19 CAR-T cell products. In addition, my team at BC Cancer is creating a made-in-Canada version that is intended to be more cost effective and more amenable to research-driven enhancements. Future goals for the field are to design CARs that have more sophisticated control mechanisms, reduced side effects, better penetration of solid tumours, and expanded application to other cancer types, while maintaining feasibility and affordability. BC Cancer has research projects focused on each of these goals.

Thus, cancer immunotherapy has finally come of age, and BC is home to an active research community working to bring new opportunities to our patients while achieving sustainability within our publicly funded healthcare system.

Contact Dr. Brad Nelson at [bnelson@bccrc.ca](mailto:bnelson@bccrc.ca)

# Private pay hereditary cancer genetic testing

By Kristin Binnington and Katie Compton, Genetic Counsellors, BC Cancer Hereditary Cancer Program



Many commercial labs across North America now offer hereditary cancer genetic testing, with or without a physician's referral. Have your patients asked you about this option? This article addresses questions on this topic frequently received by the Hereditary Cancer Program (HCP).

## Who is eligible for provincially funded hereditary cancer genetic testing?

Eligibility criteria for HCP assessment and funded genetic testing continue to evolve. Our website is the best source for current information: [www.bccancer.bc.ca/health-professionals/clinical-resources/hereditary-cancer](http://www.bccancer.bc.ca/health-professionals/clinical-resources/hereditary-cancer). If your patient is eligible for consultation, a genetic counsellor will provide information regarding genetic testing options.

## What are two reasons why I might order private pay hereditary cancer testing for my patient?

1. Your patient is concerned about their family history of cancer, but they are not eligible for a HCP appointment. For many people, it is good news to learn there is a low risk for hereditary cancer in their family. However, some people still want to have a genetic test to learn more.
2. Your patient meets HCP criteria for an appointment, has been informed of our long waiting list, and wants a test soon. Please remember that expedited HCP appointments can be requested if the results will inform immediate cancer management, a patient's life expectancy is limited, or a family member has a confirmed hereditary cancer gene mutation.

## What should I discuss with a patient who is considering private pay hereditary cancer testing?

- Are they eligible for HCP consultation?
- Not all genetic testing labs are created equal. Ensure you choose a clinical lab.
- Most clinical labs offer multi-gene panels and it is important to understand which genes are included.

- Cost varies by lab. Currently, the most competitively-priced multi-gene panels are approximately \$250USD.
- Variants of uncertain significance (VUS) are common results and should not be used to alter medical management. More genes on a panel can mean more VUS.
- Reflecting on the potential implications of genetic testing may help your patient decide about genetic testing. Some of the complex issues include:
  - how it will impact their life if they are found to carry a mutation;
  - they may still require increased cancer screening based on their family history, even if no mutations are found; and
  - how to discuss genetic testing with their relatives.
- Patients with positive results can be referred to the HCP for timely information and support.

Contact Kristin Binnington at [kbinnington@bccancer.bc.ca](mailto:kbinnington@bccancer.bc.ca) or Katie Compton at [katie.compton1@bccancer.bc.ca](mailto:katie.compton1@bccancer.bc.ca)

# After breast cancer service proving a popular resource



"I get lots of hugs from patients after their first visit," Anita Dotts, Nurse Practitioner for the After Breast Cancer Service in Vancouver

The After Breast Cancer Service is a pilot project, partially funded by the BC Cancer Foundation, launched April 2018 as a collaboration between BC Women's Health Centre and BC Cancer – Vancouver. It was created by a team led by Vancouver medical oncologists, Tamara Shenkier and Stephen Chia, and is operated by Anita Dotts, a nurse practitioner. Patients are referred by their medical oncologists after they complete their primary therapy (which can include surgery, chemotherapy and radiation) and after initiation of hormonal therapy. The

Service's mandate is to address cancer and treatment related side-effects and, by doing so, improve quality of life and adherence to adjuvant hormonal therapy before patients are fully discharged back to the care of their family physicians. The program is based at BC Women's Health Centre in Vancouver.

"Our experience is that women are identifying a number of issues related to their prior and ongoing cancer treatment, for which they require additional support. These include common side-effects of tamoxifen and aromatase inhibitors such as muscle and joint pain, fatigue, insomnia, mood issues, hot flashes, and sexual health issues that can impact a woman's quality of life," explains Ms. Dotts. "The After Breast Cancer Service provides a means to address these needs in a helpful, unhurried manner while preparing patients and their family physicians for the transition from medical oncology back to primary care.

"A key part of the Service is to develop a comprehensive care plan with each patient

which addresses health and wellness goals, intervenes to improve cancer and treatment related symptoms, ensures adequate screening and surveillance to detect new cancer or recurrence, provides connection to community resources and recommends surveillance and monitoring by their family physician," notes Ms. Dotts. Patients are followed until it is appropriate for them to be discharged back to the community. Ms. Dotts offers a telephone consultation to family physicians (who can charge the G14077 GP-Allied Care provider conference fee) to update them on their patient's progress and to review their needs going forward.

So far, 244 referrals have been received and 144 new patient visits have been conducted. Additional new patient visits have been booked over the next 3 to 12 months as requested by the referring medical oncologist. The hope is to secure core funding and eventually expand this model to other BC Cancer Centres.

Contact Anita Dotts at [Anita.Dotts@cw.bc.ca](mailto:Anita.Dotts@cw.bc.ca)



## Corridor Consult – Oncology Q&A

**Q** What is the best approach to managing Methadone (switch and start), and then adjusting doses for cancer pain?

**A** Answer from Dr. Julia Ridley, Pain and Symptom/Palliative Care Physician, BC Cancer – Vancouver

Methadone can be beneficial when patients with cancer pain have opioid tolerance, neuropathic pain, impaired



Dr. Julia Ridley

renal function, hyperalgesia/ opioid toxicity, or incomplete pain control despite other opioids. Recent changes in regulation mean prescribers are no longer required to have a special license for methadone. A free 1-hour CME-accredited learning module, at [www.Methadone4Pain.ca](http://www.Methadone4Pain.ca) is a great resource for those prescribing for analgesia, and includes information on drug interactions, safety, and dosing of

methadone. A certificate of completion of the module meets all College requirements.

Once you've decided to initiate methadone, a start low, go slow methodology is recommended due to the risk of inadvertent respiratory depression with fast switches. Continue the patient's current opioids, start with a low dose of methadone, and increase gradually every 3-5 days, when a steady state is reached. We commonly use 1mg q8hrs for patients on the equivalent of 50-200mg of morphine in a day. For patients who are frail, and/or on smaller opioid doses, 0.5mg q8hrs

*continued on page 10*

## Indigenous cancer care: building trust and honouring commitments



Signing of the Indigenous Cancer Strategy: (left to right) BC Cancer's Dr. John Spinelli, Dr. Malcolm Moore, and Preston Guno with Métis Nation BC's Ashley Turner.

By Dr. Malcolm Moore, President, BC Cancer

When I arrived at BC Cancer, in the fall of 2015, my level of awareness of the issues facing Indigenous peoples in health care was rather limited. I was embarrassed that I had lived in Canada for almost 50 years, yet knew so little about their challenges. Before I even started, I met Preston Guno, our director of Indigenous Cancer Care, who urged me to take PHSA's online Indigenous Cultural Competency course. I took to Preston immediately – he was so likeable and inspiring. We went to a sweat lodge,

where there were other Indigenous leaders, and he fed the coals into the fire. It was a memorable experience – one I refer to often in terms of what I have learned.

What I have long known, is that this is a population with special needs that has been historically disadvantaged. What I didn't appreciate until I took the course, which is excellent, was just how important their history is in impacting the way things are today. There's a historical distrust in the established medical system; Indigenous people need to feel safe and know that their

needs and wishes are understood. With our BC Indigenous Cancer Plan, which was developed jointly by First Nations Health Authority (FNHA), the BC Association of Aboriginal Friendship Centres, Métis Nation BC, and BC Cancer, we can help change that.

We started by collecting and interpreting data, something we have led the country in doing in order to investigate cancer outcomes in our First Nations people\*. This both confirmed some of the assumptions we already had around lower cancer survival rates, and surprised us to learn about some of the differences in overall cancer incidence between First Nations and the non-First Nations population. Collecting the data was challenging work: there is understandable sensitivity in the First Nations population about the risks surrounding identification. The flip side: having that data will clearly help inform the kinds of programs we need to mount.

At BC Cancer, we talk a lot about increased patient-centred care, and here's an example of where we need to take meaningful steps. We have listened to Indigenous people, and we need to continue to listen, so we don't simply deliver what we think is important in cancer care, but what they say is important: wellness and prevention, for example. Let's consider the challenges they have accessing care from rural, remote locations. How can we provide appropriate support closer to home? That's one of the tenets of our cancer plan.

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# A roadmap to improve indigenous cancer journeys

By Warren Clarmont, BC Cancer Provincial Director, Indigenous Cancer Control

The cancer care journey for BC's Indigenous population is unique in a number of ways that differ from the mainstream population. The impact of colonization, the residential school experience, and Indian hospitals created a mistrust of government institutions and an apprehension toward receiving care in both a preventative and treatment context. Access to healthcare also care remains a barrier for many Indigenous communities as remoteness, lack of access to a family physician, and fear of judgement and/or discrimination mean that many Indigenous people do not receive regular medical care and are more often treated and diagnosed in hospital emergency rooms.

To better understand and address these barriers specific to cancer care, BC Cancer worked with the First Nations Health Authority (FNHA), Métis Nation BC, and the BC Association of Aboriginal Friendship Centres to engage and consult with Indigenous communities and organizations. These efforts included consultations with



Warren Clarmont

healthcare providers, surveys with patients and families, and patient mapping exercises resulting in the December 2017 publication of BC's first Indigenous Cancer Strategy: *Improving Indigenous Cancer Journeys in BC: A Roadmap* ([www.fnha.ca/wellnessContent/Wellness/improving-indigenous-cancer-journeys-in-bc.pdf](http://www.fnha.ca/wellnessContent/Wellness/improving-indigenous-cancer-journeys-in-bc.pdf)).

A recent study of incidence and survival rates between First Nations and non-First Nations people living in BC between 1993 and 2010 gives perspective to these disparities in cancer incidence and outcomes (McGahan CE et al., 2017):

- Colorectal and cervical cancer incidence rates are significantly higher in First Nations residents (colorectal – 22% female, 39% male; cervical – 92%);
- Lung cancer rates are lower in the First Nations population, but rising and may soon overtake declining rates in the non-First Nations population;
- Breast cancer was the most commonly diagnosed cancer amongst First Nations women with rates comparable to Non-First Nations women; and
- Cancer survival rates were lower for the First Nations population compared to non-First Nations for almost all cancer types considered.

The Strategy recommends focusing on preventative activities such as encouraging tobacco cessation, healthy eating and physical activity, and developing an information campaign around HPV vaccination. More emphasis is forthcoming as well on screening, particularly for

colorectal, cervical and breast cancer, which are the most commonly diagnosed cancers among Indigenous peoples. FNHA's 'Screen. For Wellness.' campaign, designed to increase screening participation rates and early detection of cancer amongst First Nations people, is underway now.

The provision of 'culturally safe' care is another goal of the Indigenous Cancer Strategy.

The San'yas Indigenous Cultural Safety Training Course is a facilitated online Provincial Health Services Authority program designed to provide a better understanding of the way Indigenous people view the health system, and to strengthen the skills of healthcare providers who work with them. San'yas is available at no charge through PHSA's Learning Hub (<http://learninghub.phsa.ca>) and BC Cancer is encouraging all of its care providers' participation to improve culturally safe cancer care.

Contact Warren Clarmont at [warren.clarmont@bccancer.bc.ca](mailto:warren.clarmont@bccancer.bc.ca)

## Resources:

- BC Cancer – Indigenous Cancer Control: [www.bccancer.bc.ca/our-services/services/indigenous-cancer-control](http://www.bccancer.bc.ca/our-services/services/indigenous-cancer-control)
- FNHA Policy Statement on Cultural Safety and Humility – [www.fnha.ca/documents/fnha-policy-statement-cultural-safety-and-humility.pdf](http://www.fnha.ca/documents/fnha-policy-statement-cultural-safety-and-humility.pdf)
- BC Patient & Safety Quality Council – Journey Mapping in Patient Care, <https://bcpsqc.ca/resource/journey-mapping-in-cancer-care-maps/>

Cultural safety means health care professionals adopt a humble, self-reflective clinical practice that positions them as respectful and curious partners when providing care, rather than as figures of higher knowledge and authority: FNHA Policy Statement on Cultural Safety and Humility.

*Indigenous cancer care continued from page 8*

I often speak of partnerships at BC Cancer, and they are critical. What a difference it's made to work closely with the partners mentioned above. In other provinces, such as Ontario, there are many more Indigenous health authorities, which makes planning complicated; here we've been able to forge ahead with a small, unified group. And under the guidance of Warren Clarmont, Preston's

talented successor, we will develop an action plan to honour the commitments we have jointly made.

It seems appropriate that in my final week of work at BC Cancer, in early May, I will head to Prince George with John Spinelli, our VP of Population Oncology, who helped spearhead our Indigenous Cancer Strategy. There we will celebrate Preston and unveil a plaque in his name; his death from cancer last April was a huge loss for all of BC

Cancer. But progress is being made, and the advances that will happen in Indigenous cancer care in BC the next few years will be the legacy that truly honours Preston.

\*McGahan CE, Linn K, Guno P, Johnson H, Coldman AJ, Spinelli JJ, Caron N. Cancer in First Nations people living in British Columbia, Canada: an analysis of incidence and survival from 1993 to 2010 - *Cancer Causes & Control* 28: 1105–1116, 2017.

# Surviving the cure: long-term follow-up needed for stem cell transplant survivors

By Dr. Raewyn Broady, BC Cancer Provincial Lead, Malignant Hematology

Since the Leukemia/Blood & Marrow Transplant (L/BMT) Program of British Columbia (BC) performed its first two transplants in 1981, there have been numerous advances leading to an increased number of transplants performed annually (~300) and prolonged life expectancy.

There are two types of transplant: autologous (auto-SCT), in which an individual's cells are collected, stored, and re-infused following chemotherapy; and allogeneic (allo-SCT), in which a healthy donor's stem cells are infused into a patient. This article focuses on the care of adult allo-SCT survivors as their post-transplant care has greater complexity.

Eighty percent of allo-SCT patients who survive the first 2 years following treatment are expected to become long-term survivors. Unfortunately, many of these survivors experience significant medical issues known as "late effects" that occur months to years after transplantation resulting in a 30% lower life expectancy. These late effects can be broadly categorized as secondary cancers, organ specific complications, late infections, impaired quality of life (QOL), psychosocial issues, sexual and fertility concerns, financial hardship, and difficulty with integration back to society. Some complications (e.g., cardiovascular, renal, and respiratory diseases) contribute

to mortality, while other complications (e.g., dry eyes and mouth) impact QOL.

Because many long-term complications may not manifest for years or even decades after SCT, survivors need life-long monitoring. In BC/Yukon, adult allo-SCT survivors receive long-term follow-up (LTFU) care through the L/BMT Program's Survivorship Program and LTFU Clinic: ([http://www.leukemiabmtprogram.org/general\\_information/facilities\\_clinics/survivorship\\_ltfu.html](http://www.leukemiabmtprogram.org/general_information/facilities_clinics/survivorship_ltfu.html)). This involves history and physical examinations, laboratory analysis, diagnostic imaging, psychosocial assessments, health counselling, and education.

Several challenges exist with providing survivorship care solely at the Transplant Centre (TC), mostly notably years of travelling back to Vancouver! The L/BMT Program is thus working toward a shared or 'collaborative care model' where care is coordinated between the TC and primary



They love neutrophils! Long-term Follow-up Clinic staff at the Leukemia/Blood & Marrow Transplant Program of BC: Daniela Rubino - LPN; Colleen McLean - LPN, Dr. Gagan Kaila - Internist, and Elsa Choi - Unit Clerk

care providers. In this model, SCT complications are managed at the TC, whereas primary care providers, in close collaboration with the LTFU clinic, would oversee routine medical care and screening and prevention of late complications.

To heed the success of this initiative, the L/BMT Program is developing a roadmap for post-transplant care including guidelines, educational support, and clear lines of communication with easy access back to the TC.

Contact Dr. Raewyn Broady at [RBroady@bccancer.bc.ca](mailto:RBroady@bccancer.bc.ca)

In 2012, transplant experts published *Recommended Screening and Preventive Practices for Long-Term Survivors after Hematopoietic Cell Transplantation*. These guidelines assist in patient care planning, include potential organ-specific complications, recommended screening tests, preventive measures, as well as recommendations for special populations (patients with graft-versus-host disease, and patients who have received total body irradiation). The National Marrow Donor Program offers these guidelines in user-friendly formats for clinicians and patients (<https://bethematchclinical.org/post-transplant-care/long-term-care-guidelines/>).

*Corridor Consult – Oncology Q&A continued from page 8*

may be safer. After at least 3 days, double the initial dose, and continue increasing slowly in increments of the starting dose (e.g. 0.5 or 1mg per dose) every 3-5 days until pain control is achieved, at which point the background/previous opioid can be gradually reduced.

Adjusting the dose should be done similarly, with changes made no more than every 3-5 days. Titrating by 10% of the total daily dose, stepwise, will generally minimize side-effects and promote safety.

When in doubt, contact your local palliative care team, or the Pain and Symptom Management/Palliative Care Program at BC Cancer ([www.bccancer.bc.ca/our-services/services/pain-symptom-management](http://www.bccancer.bc.ca/our-services/services/pain-symptom-management)).

Contact Dr. Julia Ridley at [jridley@bccancer.bc.ca](mailto:jridley@bccancer.bc.ca)

## Resources:

[www.cpsbc.ca/programs/drug-programs/methadone](http://www.cpsbc.ca/programs/drug-programs/methadone)  
[www.methadone4pain.ca](http://www.methadone4pain.ca)

# Transformation = opportunities to improve cancer care

By Dr. Cathy Clelland, Provincial Lead,  
BC Cancer Primary Care Program

Health system transformation in BC is ramping up with the General Practice Services Committee's support of the Patient Medical Home (PMH) and collaboration in the development of Primary Care Networks (PCN). The goal is to create a quality, integrated and coordinated delivery system that is person-centred, meets population and patient needs, delivers service that is accessible, appropriate, acceptable, safe and efficient – and easy to understand both for patients and providers. The first wave of PCN communities are starting to implement their plans, with the second wave not far behind.

The next building block of this integrated system is to redesign and link currently fragmented service delivery systems into Specialized Community Services Programs (SCSPs) working with PCNs to focus on: Adults with Complex Medical Conditions and/or Frailty; Moderate to Severe Mental Health and Substance Use; **Cancer Care**; and Surgery.



Dr. Cathy Clelland

These programs are expected to provide effective and holistic care planning; and comprehensive and coordinated service delivery wrapped around individual patient needs. While the initial direction of the Ministry of Health is to implement SCSPs focussing on Mental Health and Complex Medical Conditions, plans for the SCSP in Cancer Care are on the horizon. BC Cancer's Provincial Primary Care Program is connecting now with the first waves (Wave 1A and 1B) of

PCN communities to support their Divisions of Family Practice in identifying opportunities and challenges related to cancer care roles and delivery, and communication between community providers, specialists and BC Cancer.

Many of the "asks" from primary care providers in our 2017/18 Needs Assessment undertaken with UBC Continuing Professional Development (see fpon.ca) support the need for increased and improved shared care. BC Cancer's Supportive Care and Screening Programs will logically fall under the SCSP cancer care purview.

Our Supportive Care Program, for example, includes the Pain and Symptom Management/Palliative Care Program, and services related to patient and family counseling, psychosocial oncology, oncology nutrition and exercise, speech and language pathology, and vocational rehabilitation. The SCSPs and PCNs will provide opportunity both to increase awareness of these services and to address capacity challenges to help front-line health care providers and improve care.

BC Cancer's Screening Program includes provincial screening programs for breast, cervical and colorectal cancers. Despite public education and awareness campaigns, screening rates in BC continue to be suboptimal, and there will be opportunity through the SCSPs and PCNs to improve these programs' reach and resulting patient outcomes.

I believe that for system sustainability and improved patient experience, every cancer care journey needs to be shared throughout the continuum. I am excited about the opportunities to expand access and to integrate care improving both the patient and provider experience.

Contact Dr. Cathy Clelland at  
[cathy.clelland@bccancer.bc.ca](mailto:cathy.clelland@bccancer.bc.ca)

## Outpatient cancer care survey: May 2019

The BC Ministry of Health Office of Patient-Centred Measurement & Improvement, working together with BC Cancer and the six health authorities, will be undertaking a survey in 2019 of patients who received outpatient cancer care services. This survey has been fielded across BC every five years (2005/06 and 2012/13) to understand how patients experience cancer care, to identify areas for improvement, and to determine if progress has been made from the patient perspective.

Patients invited to complete the survey will be aged 18 years and above and will have received care for cancer, a blood disorder, or a non-invasive tumour within the previous six months at a BC Cancer regional centre or in a health authority-run hospital setting in BC. They will have been treated with radiation, immunotherapy, IV chemotherapy or non-IV chemotherapy.

The same survey tool used previously, the Ambulatory Oncology Patient Satisfaction Survey (AOPSS), will be used again. The AOPSS is a validated tool covering six domains: Access (7 items), Coordination and continuity (8 items), Emotional support (8 items), Information, communication, and education (9 items), Physical comfort (5 items) and Respect for patient preferences (6 items). The survey working group has added and tested ten custom questions related to shared decision making, virtual health, complementary therapies and continuity of care.

Respondents will also be asked to complete the Veterans RAND 12-Item Health Survey, a Patient Reported Outcome Measure (PROM) which is used to assess patients' overall perspectives of their health.

Results will be shared on the Ministry of Health and PHSA Patient Experience webpages. Previous years' results are available at:

2012/13

<https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/partners/health-authorities/patient-experience-survey-results/outpatient-cancer-care-survey-2012-13>

2005/06

<https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/partners/health-authorities/patient-experience-survey-results/outpatient-cancer-care-patient-experience-survey-2006>

Contact Lisa McCune at  
[lisa.mccune@bccancer.bc.ca](mailto:lisa.mccune@bccancer.bc.ca)



# Practical tools to address sexuality in your cancer patients

By Dr. Stacy Elliott, Sexual Medicine Physician, Clinical Professor, Departments of Psychiatry and Urologic Sciences, University of British Columbia, and Sexual Medicine Consultant to Vancouver Prostate Centre's Supportive Care Program.

Enquiring about and managing sexual dysfunctions in any patient, let alone a cancer patient, can be daunting for the busy health care professional (HCP). Assumptions that sexual function is not important to cancer patients (especially older patients) are often incorrect: sexuality and intimacy remain one of the most important and under-addressed priorities. Cancer affects the bio-psychosocial aspects of sexuality and can significantly impact one's sexual quality of life including cancers that are not genital or breast in origin.

As an HCP, if you can ask about bladder and bowel issues, you can ask about sex. Instead of asking "Are you sexually active?" the 3-step method devised by GF Strong Sexual Rehabilitation Service allows for a more helpful introduction to the topic. For example:

1. Many persons living with 'xx' cancer have concerns or questions about the sexual part of their lives.
2. Have you thought about this at all?
3. Would you like to talk to someone about it?



Dr. Stacy Elliott

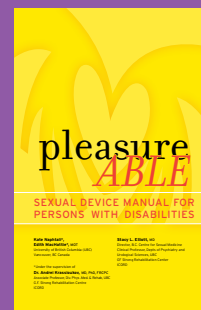
View the full webcast on this topic at [www.fpon.ca](http://www.fpon.ca) – Continuing Medical Education.

This approach shows you are willing to discuss the topic, acknowledge sexual issues, and, if you do not feel confident to manage these issues, will seek out resources. A user-friendly approach helps handle the complexity of sexuality beyond genital functioning. There is no point, for example, in giving someone a medication or sexual aid if they are unable to use it because of unaddressed mobility issues, incontinence, fear of pain, or depression.

A Sexual Rehabilitation Framework (reference below) can be helpful in any medical

## Resources:

- Sexual Device Manual for Disability, [www.dhrn.ca/files/sexualhealthmanual\\_lowres\\_2010\\_0208.pdf](http://www.dhrn.ca/files/sexualhealthmanual_lowres_2010_0208.pdf)
- BC Centre for Sexual Medicine (physician or NP referral), VGH 604.875.4705
- Prostate Cancer Supportive Care Program (self-referral), VGH 604.875.4495
- Sexual Health Rehabilitation Service, GF Strong Rehabilitation Centre (physician or NP referral) 604.737.6233



condition. This Framework consists of 8 areas of sexuality identifying the concern and proceeding to a multidisciplinary solution:

1. **Sexual desire or libido:** Investigate the more biological influences (mood disorders, hormonal imbalance, medications) and enquire about patients' motivation (i.e. sexual or intimacy payoff). Therapies target bio-psychosocial factors and often need referral.
2. **Sexual functioning abilities:** Ask about genital arousal, ejaculation in men, orgasmic attainment, and any dyspareunia in both sexes. Therapies, often requiring referral, are aimed at hormone replacement or non-hormonal lubrication, erection medications and devices, and mindfulness.
3. **Fertility and contraception:** How to address treatment effects proactively?
4. **Factors regarding the cancer:** Can sexual consequences of medications, fatigue, depression, and so on be mitigated? Try to de-hospitalize the bedroom!
5. **Motor and sensory influences:** How to address motor limitations, chronic pain, and skin sensitivity changes related to sexual acts? Occupational or physiotherapy can be helpful with adaptations.
6. **Bladder and bowel:** Refer to deal with incontinence.
7. **Sexual self-view and self-esteem:** Address patients' sense of attractiveness or maleness/femaleness especially after surgery or chemotherapy.
8. **Partnership issues:** Support for singles and couple counseling may be required.

Finally, raising the topic for discussion can be hugely therapeutic – it means "sex is spoken here". If you don't ask – patients won't tell, and will continue to suffer in silence at a difficult time in their lives, when sexual intimacy can be a positive experience.

Contact Dr. Stacy Elliott at [Stacy.Elliott@vch.ca](mailto:Stacy.Elliott@vch.ca)

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## FOR MORE INFORMATION

To learn more about the Family Practice Oncology Network or become involved please contact: Jennifer Wolfe  
Tel. 604 219 9579  
email: [jennifer.wolfe@bccancer.bc.ca](mailto:jennifer.wolfe@bccancer.bc.ca)  
Visit: [www.fpon.ca](http://www.fpon.ca)

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