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Marijuana dependence: Diagnosis and treatment

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ON THE COVER: Though current media coverage and popular opinion focus on cannabinoids' medicinal qualities and reputed benign nature, about 10% of regular users will develop dependence—defined as a problematic pattern of use leading to clinically significant impairment or distress. Article begins on page 315.

ARTICLES

OPINIONS

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Embrace the downslope

Fifty came and went and I smiled to myself as presbyopia was nowhere to be seen; then came 51. I distinctly remember the day those tiny sutures were in focus from afar but so indistinct close up. The Modern Man three pack of 1.25 readers from Costco was an easy fix. I keep a pair in each exam room and at my desk, initially for close-up examinations, but I must admit that I seem to wear them more and more.

Recently an elderly gentleman came to see me with concerns about a skin lesion on the top of his head, so I put on my glasses for a perusal. For some reason I couldn't get his shiny dome in focus so I took them off and embarrassingly noticed they were so dirty that they were almost opaque. Taking them to the sink I gave them a good clean with soap and water, apologizing to my patient for the delay. After a good dry I approached his scalp only to find it to be blurry once more. At this point the old guy asked, "Hey, what are you doing with my glasses?" Looking over at my desk, I saw that mine were right where I had left them. I was curious why he sat patiently and watched me clean his glasses, but maybe he thought I was trying to add value to the service.

It's hard to ignore the passage of time once you require reading glasses. A few more signs have also come my way: I have a granddaughter and my parents are aging into their 80s. Not to mention my bunion, which has left me with hallux rigidus and crepitus. Leaping up with youthful enthusiasm is hard to do with only 15 degrees of first metatarsal phalangeal joint movement. I also find that my back aches if I stay in bed too long, and a nocturnal bathroom visit is now the norm.

Many of my patients have never heard of the TV shows, movies, or songs of my youth and look blankly at me when I muse about Gilligan getting off the island, *Saturday Night Fever*, or not checking in to the Hotel California. Talk of rotary phones, rabbit ears, and cassette tapes brings vacant stares. I find myself to be increasingly reminiscent and particularly enjoy when a patient my age brings up some cherished memory from our collective past.

It is a sombre realization that I have more years behind than ahead, both in life and my career. Retirement, while still years away, looms in my consciousness and seems tangible (as long as I stay away from cars while bike riding that is). Aging brings reflection and focus on what is important and what isn't. I find many of the old quotes about life, happiness, contentment, and joy more poignant and truthful as my life experience grows.

When all is said and done, I would like to be remembered by my patients as the caring family physician who tried to make a difference whenever a request was made. It is often said that the quality of a person is reflected by their friends and family, but if this is true then I am not worthy. As I pick up speed on the downside of the hill, I intend to embrace and cherish the meaningful people in my life, and I encourage you to do the same.

—DRR

A wish list for ideal care

Of course it had to happen when I was least prepared for it—that is, my need to seek urgent care. As a card-carrying member of the system that provides that care, I confess that I had a degree of wariness about how I would be treated, and feared the worst. To my great pleasure, that proved to be far from the truth. I received kind, timely, and considerate care, and consequently was proud both of my profession and of the colleagues who work alongside us.

But I was a privileged patient, and I did from time to time see interactions with other patients that made me pause. Virtually all of these centred on a lack of kindness, which regrettably is one of the first features of care to be skipped in a pressure-filled environment. Words and attitudes matter: it takes no more time to say "I can see you're in pain—we will get to you as soon as we possibly can" than "Take a seat, and we'll call you when we have a bed," but the difference for the patient is profound. Patients who overhear themselves described as "the knee" or "the migraine" are bound to feel diminished. Unfortunately, kindness can't be mandated in providing care. The best we can do is to demonstrate it as often and as clearly as we can in our own actions, and hope that all our colleagues reflect what we do.

So if I develop a serious condition that requires the best possible care, what—in addition to kindness —will I want? Having given this a lot of thought over the years, I have a pretty daunting list of requirements for my medical attendants, but I surely won't have a hope of receiving most of the items on my list. This is because they are so patient-centred that even I think I'm being unreasonable—to a degree.

First, I would want the physician who is providing my care to see me as an individual, not as a case with characteristics vaguely like those of patients with similar complaints. I would want someone who listens and tries to understand what I am feeling and what I am most concerned about. I wouldn't want simply to be crammed into the nearest category of management. I would want a physician who is honest and open, but who will know when it is important to soften the tough information. Oh, and I would expect my physician to be comfortable working collegially with others, or as part of a team. I would not want to have treatment provided by a lone wolf or a maverick.

Kindness is one of the first features of care to be skipped in a pressure-filled environment.

My goodness, this does sound self-centred. But remember, this is not a realistic list, because next I would expect that whatever investigation or treatment is necessary would be provided immediately, and with no cost to me. The treatment I need to have would be evidence-based, but would also take into account (as far as possible) the subtle things that make me different from other people of my age. I will want to know everything, good and bad, that I might expect from this treatment. What will it feel like? I would probably (but not definitely) want to have my care provided as part of a clinical trial, because patients enrolled in such trials tend to have better outcomes that those having, one-off treatment.

Okay, enough. Physicians reading this may think "in your dreams." But real patients? Perhaps not. Committees developing guidelines for management of complex health issues tend now to include patient representatives, because the things that a patient will be most concerned about are often simply not seen as being important by physicians. Physicians, reasonably, focus on outcomes, but patients will also focus on the path to getting better. I'm aware that only in a publicly funded, comprehensive health care system would my wish for free care be possible, and I'm in no position to criticize policymakers for not doing their best with the resources they are given. But my recent experience as a consumer of care, rather than a provider, has given me a perspective that I hadn't expected, and henceforth I hope to keep this list in the back of my head. So what kind of care would *you* want?

—TCR

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Re: Forms

Colleague Dr C., while trying to clear his desk before going on vacation, got frustrated with the endless requests for more information about a Special Authority request and jotted, "Quit wasting my time!" on the paper. His MOA faxed the form. The civil servant at the Ministry of Health forwarded the note to the College, with a cover letter asking, "Is this professional behavior?" The College sent the correspondence to Dr C., asking for an explanation. On his return from vacation, Dr C. was greeted with the letter on yellow paper from the College. The letter was dated 2 weeks prior to Dr C.'s return to the office. The College demanded a reply within 2 weeks. Dr C., an astute and well-liked family practitioner, retired at age 52.

Older GPs are retiring, and young graduates are not competing to take over their practices. Society might get doctors to provide more medical care if committee members and office clerks sent fewer forms. For now, to fill out a form, I charge the fees suggested by the Society of General Practitioners of BC.

—Robert Shepherd, MD
Victoria

Cardiac adverse complication/prevention and cancer risk in the risk-benefit paradox of exercise

The article by Warburton and colleagues [*BCMJ* 2016;58:210-218] reports on the risk-benefit paradox of exercise. There is a transient increase in short-term risk for an adverse cardiac event with vigorous exercise and a reduction in long-term risk for chronic disease and premature mortality with relatively small amounts of exercise.

The recently published pooled analysis by Moore and colleagues[1] on leisure-time physical activity in the risk of cancer development provides a different paradox. Leisure-time physical activity is found to be associated with lower risks of approximately half (13) of the cancer types regardless of BMI or smoking status. They include esophageal adenocarcinoma, liver, lung, kidney, gastric cardia, endometrial, myeloid leukaemia (20% or more lower risk), and others. In contrast, there is an increased risk in prostate cancer (5% higher risk) and melanoma (up to

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Cut through the differences, grow visionary leaders

The value of strong leadership within the profession cannot be overemphasized. Given the challenges doctors face with tightening health care budgets, an aging population, and physician shortages, it is our patients, indeed society as a whole, who are looking to us—the medical profession—for meaningful and practical solutions. These challenges have grown steadily over a number of years, and they will not be solved overnight. But as a profession we have the influence, the education, and the ability to effectively lead the way to a better tomorrow. Often, starting at the local community or department level with a single initiative, as we did with the divisions of family practice and the medical staff associations, can prove to be the best course of action.

But what does it mean to be a physician leader? It's about more than just skill and experience. It's about taking rational risks, having a vision, and taking action to shape the future of health care. It's about stepping out of our day-by-day work; moving outside our comfort zone; and engaging with our colleagues, our health authorities, and often government, our communities, and our patients to drive innovation and positive change.

Some of the best leadership and the most significant and meaningful changes are those that begin at the grassroots. Take the example of ERAS, a project to Enhance Recovery After Surgery. A small group of doctors in the Interior of British Columbia, along with nurses, administrators, and allied health care providers, had a vision to implement a number of perioperative care pathways designed to achieve early recovery. Today, with the support of Doctors of BC and the Specialist Services Committee, they have seen great success, and ERAS has expanded to 23 communities and significantly impacted hundreds of patients in 26 hospitals.

Engagement and collaboration are key elements to leadership. When we work together and put aside our individual differences, that's when change really happens. We have seen this in the work of our physician colleagues and leaders in the divisions of family practice across the province. Their grassroots work in communities around BC has supported such things as the creation of more team-based practice models, local recruitment and retention efforts, and the introduction of new business practices, enabling doctors to effectively take on more patients. We have also seen physician leaders within our hospitals work hard to develop the medical staff associations—first-of-their-kind initiatives that enable our facilities-based physicians, many of whom are specialists, to have a stronger voice in decision making in their health authorities. Leadership is about being willing to sit down, listen, and work with others to cut through our differences and come to a mutual understanding and a positive solution.

Leaders have a strong desire to teach and mentor, to pass along what they have learned, and inspire the next generation. And all young doctors—our potential future leaders—who are just beginning their careers would benefit from having a mentor, someone to advise them, someone to look up to. Each one of us has our own unique story that tells how we got to where we are today, who impacted us along the way, and what lessons we have learned. By sharing our experiences and demonstrating our leadership, we will be providing the same guidance and mentorship to our doctors of tomorrow. We will be setting an example for other doctors, while helping our young colleagues build a foundation as they embark on their careers.

In our recently released *2015–16 Annual Report*, you will find profiles on five energetic, passionate, and visionary physician leaders in BC (doctorsofbc.ca/who-we-are/annual-report). They tell their stories of what inspires them and the role leadership plays.

I was particularly moved by the words of Dr Arun Jagdeo, a fourth-year psychiatry resident, already a leader and working to change the world. He perceives physicians' work as a calling, not just a job, and says, "I see physicians as healers, not mere service providers, and, as such, I view us as persons who hold a great deal of power. As a profession, medicine has offered me a great many opportunities for personal growth and to contribute to society, and, in return, I'm compelled to help make our profession the symbol for all that is good in the world."

Thank you to all our physician leaders—those known and those as yet unrecognized—for your time, energy, dedication, and commitment to your patients, communities, and to our profession.

—Alan Ruddiman, MBBCh, Dip PEMP, FRRMS
Doctors of BC President

Drop me a line
Do you know any physician leaders? If so, drop me a line at president@doctorsofbc.ca and we may feature them in future articles.

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27% higher risk), although the former may be related to screening bias and the latter to UV exposure.

The invited commentary on the Moore article by McCullough and colleagues[2] suggests further research is needed to assess the critical timing of physical activity needed for optimal cancer risk reduction. Clarification is also needed on the types and amount of leisure-time activity (e.g., running, cycling, or walking).

There is a risk-benefit paradox of exercise in cardiac adverse complication/prevention and cancer risk.

—H.C. George Wong, MD
Vancouver

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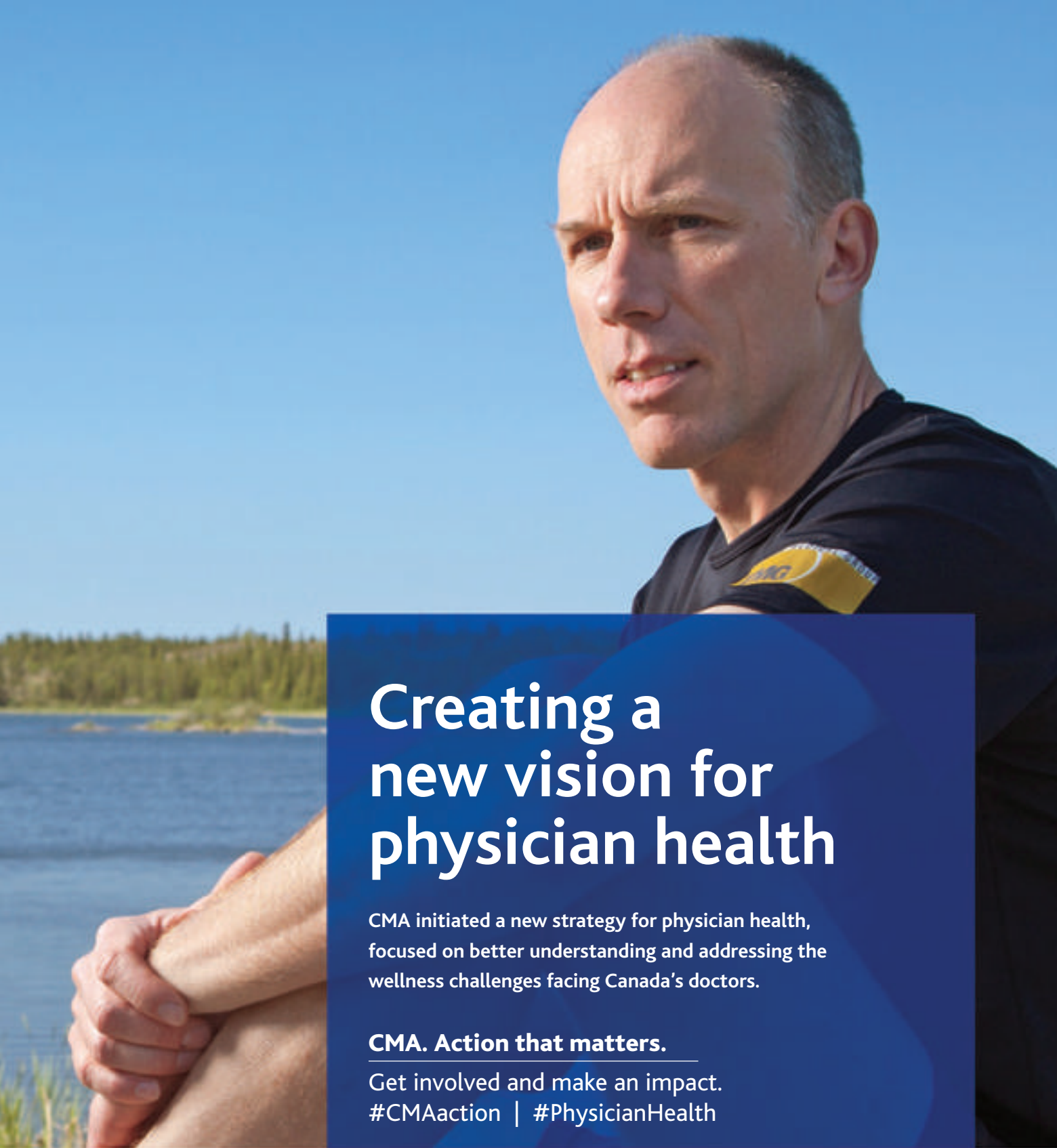
Election results

In the recent Doctors of BC 2016–17 election for president-elect, less than 30% of our membership voted, with the winner receiving 53% of that vote. In the last federal election, which required voters to visit a polling station rather than push a button on a computer, voter turnout was 68%. The other two positions on the executive, and all but 1 of 11 positions on the Board, were filled by acclamation. What has happened to our profession? Why is there such apathy? We had a highly respected candidate for president-elect who ran on the platform of engaging the membership in real change. Two Board members of the Canadian Doctors for Medicare widely circulated e-mails against Dr Day that did not fairly represent his platform. Many colleagues were shocked that such behavior was tolerated. This behavior causes members to disengage. I respectfully ask the Board to review their election policy guidelines for members endorsing candidates. It is time that the Board enforce an attitude of professionalism. Only then can the association expect to earn the respect, engagement, and support of the membership.

—Anne Wachsmuth, MD
Vancouver



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Bakul I. Dalal, MD, FRCPC, Dylan K.S. Suyama

Paroxysmal nocturnal hemoglobinuria: Recommendations for diagnostic testing

Now that a highly effective treatment for PNH is available, it has become more important to test for this ultra-rare disorder based on appropriate indications, which include pancytopenia but not unicytopenia or bicytopenia.

ABSTRACT: Paroxysmal nocturnal hemoglobinuria is an ultra-rare disorder characterized by hemolysis, thrombosis, and pancytopenia. It is seen equally in both sexes, in all races and ages, and at a rate of approximately 5 to 10 cases per million people. Now that a highly effective treatment is available (eculizumab, a complement inhibitor), the outlook for patients has changed dramatically and it has become more important to include paroxysmal nocturnal hemoglobinuria in a differential diagnosis and to test for it. In British Columbia the vast majority of diagnostic tests for this disorder are conducted at the flow cytometry laboratory at Vancouver General Hospital, where the number of tests per year has increased thirtyfold since 2001. A review of testing at the laboratory found that tests for certain indications, especially cytopenia involving only one or two cell lines (approximately one-third of all tests conducted), did not yield positive results. Given that testing costs several hundred dollars per patient and is a significant expense for the BC health care system, we recommend changes be made to the list of indications for testing. We recommend that all patients with proven aplastic anemia or unexplained hemolysis, thrombosis, or persistent pancytopenia be tested for paroxysmal nocturnal hemoglobinuria, but that patients with cytopenia involving only one or two cell lines not be tested. Family physicians should be aware of indications for paroxysmal nocturnal hemoglobinuria so that they can include this disease in a differential diagnosis and test for it when appropriate.

This article has been peer reviewed.

Paroxysmal nocturnal hemoglobinuria (PNH) is an ultra-rare, acquired blood disorder that is characterized by hemolysis, thrombosis, and pancytopenia (anemia, leukopenia, and thrombocytopenia) due to bone marrow failure. PNH is seen equally in both sexes, in all races and ages, and at a rate of approximately 5 to 10 cases per million people.[1] Patients with PNH lack a protein called glycosylphosphatidylinositol (GPI), normally present on the membrane of blood cells.[2] GPI is a bridge protein that binds many proteins on the outside of the cell, including complement-inactivating proteins CD55 and CD59. In patients with PNH, the absence of CD55 and CD59 results in complement-mediated hemolysis, thrombosis, and pancytopenia.

Dr Dalal is a clinical professor in the Department of Pathology and Laboratory Medicine at the University of British Columbia. He is also a staff hematopathologist and medical director of the flow cytometry laboratory at Vancouver General Hospital. Mr Suyama is a medical student, studying at the University of St. Andrews in Scotland, who conducted research with Dr Dalal in 2015.

Clinical features of PNH

The clinical features of PNH are shown in **Table 1**.[3,4] The most common are fatigue (typically out of proportion to the degree of anemia), shortness of breath, and hemoglobinuria (red urine), especially in the first morning sample (**Figure 1**). Upper abdominal pain due to esophageal spasms is a characteristic finding. Erectile dysfunction is seen in the majority of men with PNH. Arterial or venous thrombosis is seen in 25% to 40% of patients and is the leading cause of death.[5] Thrombosis can occur at common sites (e.g., deep veins of lower limb) as well as uncommon sites (e.g., hepatic vein, dermal veins, cerebral veins).[6] The course of PNH is variable, with the median survival time for an untreated patient being around 10 years.

Newer therapeutic options, such as stem cell transplantation and the anticomplement antibody eculizumab (Soliris), have radically changed the outlook for patients with PNH.[7] Eculizumab produces an immediate and sustained improvement in all symptoms, reducing hemolysis, decreasing risk of thrombosis, and increasing quality of life.[8,9] Because of the availability of effective treatment, patients with unexplained hemolytic anemia, thrombosis, or cytopenia should be tested for PNH.

Eculizumab produces an immediate and sustained improvement in all symptoms, reducing hemolysis, decreasing risk of thrombosis, and increasing quality of life.

As well as being useful in patients suspected of having paroxysmal nocturnal hemoglobinuria, PNH testing is useful in patients with aplastic anemia and myelodysplastic syndrome. A positive result may be seen in a subgroup of these patients and is a predictor of good response to immunosuppressive treatment.[10] International consensus guidelines have been developed to define the indications for testing PNH.[5]

PNH testing at Vancouver General Hospital

Testing for paroxysmal nocturnal hemoglobinuria involves using a flow cytometer to identify PNH-positive blood cells, which lack one or more GPI-bound antigens. Tests for the majority of cases in British Columbia where PNH is suspected are conducted at Vancouver General Hospital. PNH testing is also offered by two other

Table 1. Clinical features of paroxysmal nocturnal hemoglobinuria.[3,4]

Feature	Frequency (%)
Fatigue	80
Dyspnea	64
Hemoglobinuria	62
Abdominal pain	44
Cytopenia (bone marrow suppression)	44
Erectile dysfunction	38
Chest pain	33
Thrombosis	25–40
Renal insufficiency	14

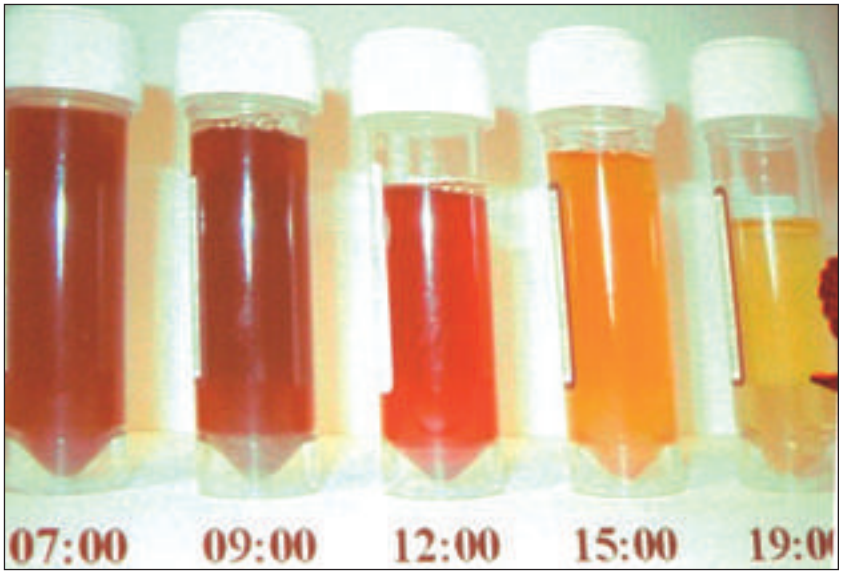

Figure 1. Early morning hemoglobinuria seen in specimen of patient diagnosed with paroxysmal nocturnal hemoglobinuria.

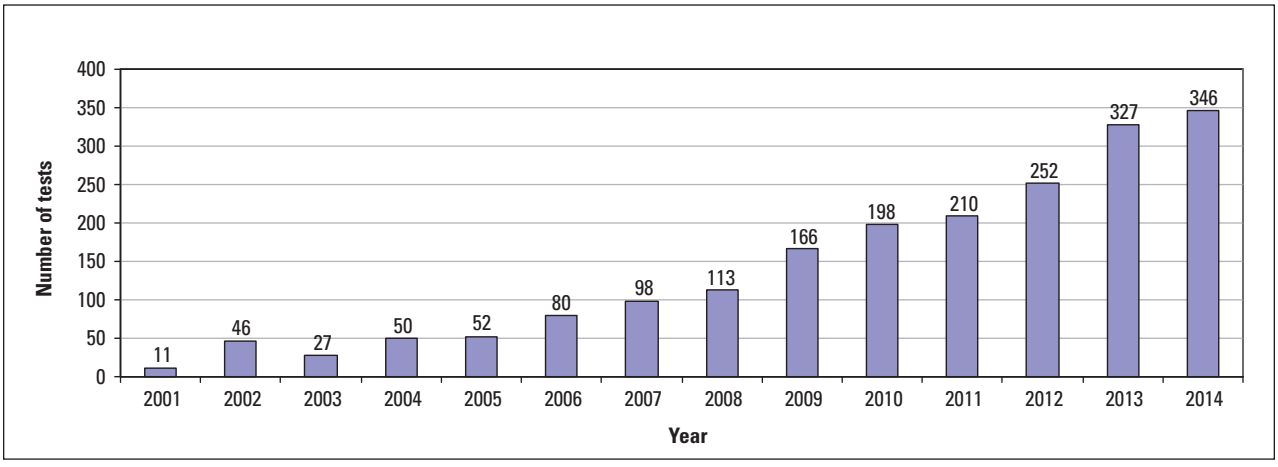

Figure 2. Number of tests for paroxysmal nocturnal hemoglobinuria conducted per year at Vancouver General Hospital, 2001 to 2014.

centres. Testing is expensive, costing several hundred dollars per patient, and the steady increase in PNH testing in British Columbia since 2001 (**Figure 2**) represents a significant cost to the health care system.

To further refine the indications used to order tests for this ultra-rare disease, we retrospectively evaluated PNH tests performed at Vancouver General Hospital over a 3.5 year period (July 2010 to December 2013).[11] Of the 935 cases, 101 (10.8%) were found to have a subpopulation of PNH-positive cells. A chart review identified indications in most of the cases evaluated.

Three indications made up 18% of all tests: previously diagnosed PNH, hemolysis, and thrombosis (**Table 2**). These indications are relatively specific for PNH and should lead to testing. Another indication, aplastic anemia, should also lead to testing because a finding of PNH phenotype cells is likely. However, yet another indication, cytopenia, is very common in the general population and much less specific for PNH. Despite this, cytopenia was the indication for testing in more than 50% of cases (490/935).

We subdivided the cytopenia cases depending on the number of cell lines involved (**Table 3**). The indications included pancytopenia (all three cell lines), bicytopenia (two cell lines), and unicytopenia (one cell line). The proportion of positive results was highest in cases of pancytopenia (9.9%) and lowest in cases of bicytopenia (1.8%) and unicytopenia (0.4%). We also subdivided the unicytopenia cases (**Table 4**) and found these were notable for the rarity of

Table 2. All cases

Indications for testing and proportion of positive results from a retrospective evaluation of 935 tests for paroxysmal nocturnal hemoglobinuria (PNH) conducted at Vancouver General Hospital, July 2010 to December 2013.[5,11]

Indication	PNH-positive results n/N (%)
Previously diagnosed PNH	39/45 (86.6%)
Hemolysis	7/81 (8.6%)
Thrombosis	0/39 (0.0%)
Aplastic anemia	25/50 (50.0%)
Cytopenia	18/490 (3.7%)
Myelodysplastic syndrome	5/53 (9.5%)
Others not stated	7/177 (4.0%)
Total	101/935 (10.8%)

Table 3. Cytopenia cases

Indications for testing and proportion of positive results from a retrospective evaluation of 490 tests for paroxysmal nocturnal hemoglobinuria (PNH) conducted at Vancouver General Hospital, July 2010 to December 2013.[5,11]

Indication	PNH-positive results n/N (%)
Pancytopenia	15/151 (9.9%)
Bicytopenia	2/113 (1.8%)
Unicytopenia	1/226 (0.4%)
Total	18/490 (3.6%)

Table 4. Unicytopenia cases

Indications for testing and proportion of positive results from a retrospective evaluation of 226 tests for paroxysmal nocturnal hemoglobinuria (PNH) conducted at Vancouver General Hospital, July 2010 to December 2013.[5,11]

Indication	PNH-positive results n/N (%)
Anemia	1/145 (0.7%)
Leukopenia	0/42 (0.0%)
Thrombocytopenia	0/39 (0.0%)
Total	1/226 (0.4%)

positive results: 1/145 in anemia, 0/42 in leukopenia, and 0/39 in thrombocytopenia. These findings indicate that not conducting PNH test in cases of cytopenia involving only one or two cell lines could reduce the testing volume by about one-third.[11]

Recommendations

Physicians should be aware of PNH as an ultra-rare disease that can now be treated effectively if the disorder is included in the differential diagnosis and an early and accurate diagnosis is made. However, because testing for PNH is expensive, physicians should also be aware of the appropriate indications for testing.

We recommend that all patients with proven aplastic anemia or unexplained hemolysis, thrombosis, or persistent pancytopenia be tested for PNH. We recommend that patients with cytopenia involving only one or two cell lines not be tested for PNH.

We recommend that all patients with proven aplastic anemia or unexplained hemolysis, thrombosis, or persistent pancytopenia be tested for PNH.

Competing interests

Dr Dalal has received speaking fees and research grants from Alexion Pharmaceuticals, the developer of eculizumab (Soliris), a complement inhibitor for treating paroxysmal nocturnal hemoglobinuria. The research summarized in this article was supported by a grant from Alexion Pharmaceuticals.

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Quantifying a care gap in BC: Caring for surgical patients with a body mass index higher than 30

Surgeons responding to a survey acknowledge that they have delayed or declined to perform surgery in obese patients because of concerns about technical and anesthetic challenges.

ABSTRACT

Background: **Obesity rates are on the rise in British Columbia, in Canada, and throughout the world. Because obesity is associated with many well-documented comorbidities and perioperative complications, surgical and anesthetic management of obese patients is challenging and resource-intensive. An obesity guideline from the College of Physicians and Surgeons of British Columbia considers the suitability of patients for surgery at nonhospital medical facilities in terms of three body mass index (kg/m^2) categories. Patients with a BMI of 30 to 34.9 are considered suitable surgical candidates only if they have no more than two comorbid conditions; patients with a BMI of 35 to 38 should have only minor peripheral procedures with regional or local anesthesia; and patients with a BMI higher than 38.1 should have surgery only "under extraordinary situations." These recommendations mean that some obese patients may not have access to the surgical care they require—a potential care gap that we set out to quantify by surveying BC surgeons and anesthesiologists.**

Methods: **A questionnaire was developed to find out about the surgical care of obese patients based on three risk stratification categories: BMI 30 to 34, 35 to 37, and 38 or higher. The questionnaire was distributed via e-mail invitation to BC associations representing general surgeons, orthopaedic surgeons, obstetrician/gynecologists, and anesthesiologists. SurveyMonkey was used to collect and analyze the responses.**

Results: **A total of 377 respondents completed the survey: 154 surgeons (53 general surgeons, 57 orthopaedic surgeons, and 44 obstetrician/gynecologists) and 223 anesthesiologists. All six health authorities in British Columbia were well represented. All surgeons and almost all anesthesiologists (97%) indicated that they provide care for obese patients. Anesthesiologists indicated that they modify their management of patients based on a BMI of 30 to 34 (72%), 35 to 37 (98%), and 38 or higher (100%). Of the surgeons surveyed, 85% acknowledged that patients at their hospitals have had surgery postponed or cancelled because of obesity and either had to leave the community for their care or go without care, and 68% indicated that they have cared for obese patients at some point in their careers**

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whose surgery had been postponed or declined by another provider. Regarding elective surgery, surgeons delayed or declined to perform surgery because of concerns about obesity-related complications in patients with a BMI of 30 to 34 (77%) and in patients with a BMI of 38 or higher (96%). Regarding urgent surgery, surgeons delayed or declined to perform surgery in patients with a BMI of 30 to 34 (31%) and in patients with a BMI of 38 or higher (60%). When surgeons were asked if they thought their hospitals could become centres of excellence for managing obese surgical patients, 73% felt this would be possible with the adequate resources to allow for the extra time, skill, and effort needed for safe care of these complex patients.

Conclusions: **Survey responses revealed a significant care gap existing in BC. A number of patients are waiting for or being denied surgical care because of concerns about their obesity. It is notable that 96% of surgeon respondents have delayed or declined to perform elective surgery in patients with a BMI higher than 38, and that 60% of surgeon respondents have delayed or declined to perform urgent surgery in patients with a BMI of 38 or higher. There is a clear need for provincial centres of excellence to support the work of surgeons and anesthesiologists with an interest in treating these patients and achieving better patient outcomes with the use of evidence-informed protocols and increased volume and provider experience.**

Background

In British Columbia, the prevalence of obesity is increasing at an alarming rate, mirroring trends seen throughout the world.[1,2] The World Health Organization defines an overweight body mass index (BMI) as 25 to 29 kg/m^2, and an obese BMI as greater than or equal to 30 kg/m^2.[3]

In 2014, 48% of British Columbians self-reported as being overweight or obese. This is an increase of 3.6% since 2010, more than double the average increase across Canada (1.7%).[4] Statistics Canada estimates that in 2011–12 one in four adult Canadians, or about 6.3 million people, were obese. Since 2003, the proportion of obese Canadians has increased by 17.5%.[5]

As our population grows heavier, surgical care providers need to acknowledge the comorbidities and risks associated with overweight or obese patients, as well as how specific perioperative concerns influence surgical management and outcomes. It is well known that obesity increases the complexity of surgery,[6-11] the length of surgery,[12-15] perioperative complication rates,[10-14,16-28] use of hospital resources,[12,16,18,28,29] and failure rates.[11,17,21,24,30,31] An obesity guideline from the College of Physicians and Surgeons of British Columbia[32] considers the suitability of patients for surgery at nonhospital medical facilities in terms of three BMI categories. Patients with a BMI of 30 to 34.9 are considered suitable surgical candidates only if they have no more than two comorbid conditions (e.g., sleep apnea, type 2 diabetes mellitus, hypertension) and the proposed surgery/anesthesia is not likely to aggravate or precipitate comorbid conditions; patients with a BMI of 35 to 38 should have only minor peripheral procedures with regional or local anesthesia; and patients with a BMI higher than 38.1 should have surgery only "under extraordinary situations" and with the approval of the medical director.

While the surgical risks associated with obesity are recognized, what has not been well quantified is the care gap that can occur when people with an illness need but do not receive treatment.[33] In this study, we addressed the unmet need of obese patients in BC who are not getting access to the surgical care they require.

Methods

We developed a questionnaire to assess the current experience of surgeons and anesthesiologists caring for overweight and obese patients, the readiness of surgeons to operate on overweight and obese patients, and the impact of the degree of obesity and the urgency of the surgery on surgeon willingness to operate. Respondents were asked about their surgical care of patients based on three risk stratification categories: BMI 30 to 34, 35 to 37, and 38 or higher.

The questionnaire was distributed in June 2015 via e-mail invitation to BC associations representing general surgeons, orthopaedic surgeons, obstetrician/gynecologists, and anesthesiologists. When combined, general surgeons, orthopaedic surgeons, and obstetrician/gynecologists represent 56% of surgical specialists in BC.[34]

Survey results were collected and analyzed through SurveyMonkey.

Results

A total of 377 respondents completed our survey: 154 surgeons (53 general surgeons, 57 orthopaedic surgeons, and 44 obstetrician/gynecologists) and 223 anesthesiologists. All six health authorities in British Columbia were well represented.

All surgeons and almost all anesthesiologists (97%) indicated that

they provide care for obese patients. All surgeons reported providing care to patients with BMIs up to and including 37, while 97% of surgeons reported managing patients with BMIs of 38 or higher.

All respondents indicated that patients with a BMI higher than 35 sometimes or always require additional preoperative assessment, more preoperative medical optimization, more complex intraoperative care and monitoring, and a greater amount of postoperative care. Most respondents (94%) indicated that the same additional requirements were needed for patients with a BMI of 30 to 34. Asked if they have had to modify their management of patients because of an elevated BMI and associated comorbidities, 72% had done so for patients with a BMI of 30 to 34, 98% had done so for patients with a BMI of 35 to 37, and 100% had done so for patients with a BMI of 38 or higher.

In spite of this experience with overweight and obese patients, a large majority of surgeon respondents (85%) acknowledged that surgeries for such patients at their hospitals are postponed or cancelled because of concerns about obesity, and patients must either leave the community for their care or go without care completely. The same number of surgeons (85%) responded that they have personally postponed or declined surgery because of obesity. Elective non-life-threatening procedures are affected most significantly, but semi-elective and urgent procedures are also affected (**Figure**). Most surgeon respondents have delayed or declined to perform elective surgery in patients with a BMI of 35 to 37 (90%) and a BMI of 38 or higher (96%) because of concerns about the patient's obesity, and many surgeon respondents have delayed or declined to perform urgent surgery in patients with a BMI of 35 to 37 (40%) and a BMI of 38 or higher (60%).

Over two-thirds of responding surgeons (68%) found themselves at some point in their career caring for obese patients whose surgery was either postponed or declined by another provider.

When surgeons were asked if they thought their hospitals could become centres of excellence for managing obese surgical patients, 73% felt that this would be possible with adequate resources to allow for the extra time, skill, and effort needed for safe care of these complex patients.

Conclusions

Obesity is a growing problem that affects all aspects of health care. It has well-established associations with numerous medical and surgical morbidities. Obese patients have a higher incidence of cardiovascular disease, type 2 diabetes mellitus, thromboembolic events, and obstructive sleep apnea, which may independently increase perioperative morbidity and mortality and resource requirements.[16,22]

Technical aspects of surgery can be significantly more challenging in patients with a body mass index over 25, and exceptionally so in patients with higher BMIs.[17] Longer operating times,[10-15] higher rates of conversion from laparoscopic to open surgery,[6-8] failure of oncologic resections,[8] and higher rates of intraoperative injury[9] are due to more complex technical demands in the care of obese and overweight patients. It is believed that the majority of these issues are due to problems with exposure and challenging dissection.[7]

Perioperative complications are some of the most well-documented obesity-related surgical problems. Risk of a thromboembolic event is significantly higher;[13,16,18] postoperative reintubation and cardiac arrest are more common;[19,20] and finally, mortality rates are also higher.[19,22] Rates of superficial and deep wound infections are markedly elevated in patients with excess, poorly vascular-

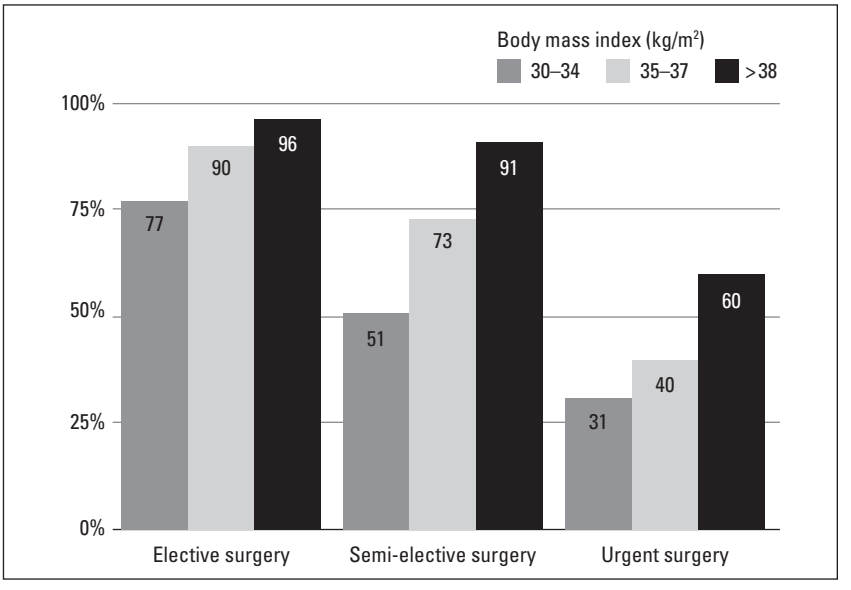

Figure. Percentage of surgeons surveyed who have postponed or declined to perform elective, semi-elective, or urgent surgery because of different degrees of patient obesity.

ized adipose tissue.[11,18-20,22-24] Risk of dehiscence,[25,26] both immediate and delayed, is also increased, and incisional hernia rates are higher.[27,28]

Technical failures are more common: obese patients have higher risk of intestinal anastomotic leaks,[10,11,21] ostomy complications,[11] Nissen fundoplication wrap failure,[31] microsurgery flap failure,[24] and prosthetic-related complications, including dislocation, component loosening, and poor implant survival.[17,30]

Anesthetic challenges arise when managing and monitoring the cardiopulmonary systems and when dosing perioperative medications.[16,22] A thick neck, heavy chest and abdomen, high gastric residual volume, reduced functional residual (pulmonary) capacity, and potential underlying sleep apnea and/or hypoventilation syndrome all contribute to difficulties with airway management and ventilation. More invasive or complex techniques may be necessary to establish vascular access, and obscured anatomical landmarks may complicate the insertion of invasive monitors. Poor anatomical landmarks may also limit the ability to provide effective regional (nerve block) or local anesthesia. Drug redistribution is hard to predict in overweight patients, and anesthetic agents must be carefully titrated. Opioid analgesics are used with caution in order to minimize the associated respiratory depression and potential need for postoperative reintubation. Evolving clinical practice guidelines suggest that a greater proportion of obese surgical patients with sleep apnea should be admitted overnight for monitoring.[29]

Finally, hospital resources required for appropriate care of obese patients may be substantial. Factors that result in a higher overall cost of caring for obese patients[26] include the preoperative workup, additional intraoperative monitoring, unplanned admissions following outpatient surgery,[16] prolonged hospital stays,[12,23] and the management of perioperative complications and comorbidities such as hyperglycemia and pulmonary dysfunction.[16]

With the well-documented risks and costs associated with caring for obese patients, it is not surprising that surgery for these patients is postponed or denied. This is especially concerning because comorbidities related to obesity, including gallstones, reflux, osteoarthritis, and certain malignancies, frequently require surgical intervention.

There is a clear need for provincial centres of excellence where surgeons and anesthesiologists with an interest in treating obese patients can use evidence-informed protocols and deliver better patient outcomes through increased volume and provider experience.

Our survey findings indicate a care gap exists in BC. It is notable that 96% of surgeon respondents have delayed or declined to perform elective surgery in patients with a BMI of 38 or higher because of concerns about the patient's obesity, and that 60% of surgeon respondents have delayed or declined to perform urgent surgery in patients with a BMI of 38 or higher. There is a clear need for provincial centres of excellence where surgeons and anesthesiologists with an interest in treating obese patients can use evidence-informed protocols and deliver better patient outcomes through increased volume and provider experience. Indeed, we know from the surgical literature (general, orthopaedic, cardiovascular, colorectal, and bariatric) that outcomes are improved in institutions with higher volumes—a result not simply related to the experience of individual surgeons and anesthesiologists[35-37] but likely due to multidisciplinary teams of care providers developing expertise in managing these complex patients and learning to recognize and treat complications early. With the infrastructure and resources to care for complex obese patients, physicians could invest the extra time, skill, and effort needed to identify and manage associated risks and comorbidities, and the result would be safer and timelier care.

Competing interests

None declared.

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Diagnosis and treatment of marijuana dependence

Studies have shown that psychosocial approaches, including motivational enhancement therapy, cognitive-behavioral therapy, and contingency management, can be effective when treating dependence on cannabinoids.

ABSTRACT: Marijuana and its extracts are derived from *Cannabis sativa*, a type of hemp plant that contains active compounds called cannabinoids. As with many drugs, regular use of marijuana can result in dependence. Cannabis dependence is defined as a problematic pattern of use leading to clinically significant impairment or distress. Symptoms of dependence include using cannabis in larger amounts or over a longer period than was prescribed or intended, making unsuccessful efforts to cut down or control cannabis use, and spending time in activities necessary to obtain, use, or recover from cannabis effects. Signs and symptoms of withdrawal include irritability, anger, anxiety, difficulty sleeping, abdominal pain, fever, chills, and severe headache. Once an accurate diagnosis of marijuana dependence has been made, pharmacological and psychosocial treatment options can be considered. Although a literature review indicates insufficient evidence for a single broadly and consistently effective pharmacological treatment for cannabinoid dependence, adjunctive treatment for nausea, anxiety, and insomnia can be helpful. Replacement therapy and short-term dose tapering with synthetic cannabinoids may also be used to manage withdrawal symptoms. Studies of motivational enhancement therapy, cognitive-behavioral therapy, and contingency management for treating marijuana dependence have shown promising results.

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Marijuana and its extracts are derived from *Cannabis sativa*, a type of hemp plant that contains active compounds called cannabinoids, which are categorized as psychoactive (e.g., cannabinol), nonpsychoactive (e.g., cannabidiol), and inactive. Marijuana is the most common illicit drug in Canada and is used to manage symptoms of some health conditions. However, as with many drugs, regular use of marijuana can result in dependence.

In 2012, the prevalence of marijuana use among the general population in Canada was 10.2%, and the rate of past-year marijuana use among youth age 15 to 24 was 20.3%, with an average age of 16 years for first use.[1] Although marijuana use is widespread among adolescents and young adults, dependence is often underdiagnosed.

The effects of cannabinoids come from the action of two major receptor subtypes: CB1 receptors (located mainly in the central nervous system but also found in the lungs, liver, and

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kidneys) and CB2 receptors (located in the immune system and hematopoietic cells).

Tetrahydrocannabinol (THC) is one of the main *C. sativa* substances to have psychoactive effects. The dried plant material is smoked while other preparations, such as natural extract and hash oil, are smoked, inhaled, or ingested. Inhalation is the most common route of administration because of the rapid transit of active compounds to the brain. When smoked, the effects of cannabinoids usually last less than 2 hours.

Diagnosing dependence

The *DSM-5*[2] defines cannabis dependence as a disorder characterized by a problematic pattern of use leading to clinically significant impairment or distress, as manifested by at least two of the following symptoms occurring within a 12-month period:

- Using cannabis in larger amounts or over a longer period than was prescribed or intended.
- Making unsuccessful efforts to cut down or control cannabis use.
- Spending a lot of time in activities necessary to obtain, use, or recover from cannabis effects.
- Craving cannabis or feeling an urge to use cannabis.
- Failing to fulfill major life obligations at work, school, or home.
- Continuing to use cannabis despite persistent or recurrent social or interpersonal problems.
- Giving up or reducing involvement in important social, occupational, or recreational activities.
- Using cannabis in physically hazardous circumstances.
- Continuing to use cannabis despite having a persistent or recurrent physical or psychological problem.
- Tolerance, as defined by a need for markedly increased amounts of cannabis or a markedly diminished effect with continued use of the same amount of cannabis.
- Withdrawal, as manifested by the characteristic withdrawal syndrome.

Individuals use cannabinoids for many reasons. Although the effects vary from person to person, users often report improved sleep, improved appetite, reduced anxiety, and better pain control. However, cannabinoids can have many other less desirable effects on organ systems, including cognitive effects (e.g., psychosis, memory and learning problems, cognitive impairment, amotivational syndrome), cardiovascular effects (e.g., unstable blood pressure, tachycardia), respiratory effects (e.g., heavy cough, frequent acute chest infections), and endocrine effects (e.g., reduced testosterone levels). Symptoms of intoxication with or withdrawal from cannabinoids can complicate management of other health conditions. In addition, cannabinoids can interact with commonly prescribed medications such as certain antidepressants, theophylline, fentanyl, zolpidem, lorazepam, and disulfiram. While cannabinoid overdose is unlikely, cannabinoids often produce unwanted effects such as sedation, intoxication, clumsiness, dizziness, dry mouth, lowered blood pressure, and increased heart rate.[3]

Results from both human and animal studies of cannabis consumption indicate that regular use can lead to increased tolerance and dependence. Approximately 10% of individuals who regularly use cannabis will develop dependence. The potency of the cannabinoid as well as the amount used, the duration of use, and the route of administration will determine the severity of withdrawal symptoms.[4] Withdrawal symptoms usually start within 24 to 48 hours of abstinence, reach a peak within 4 to 6 days, and can last up to 4 weeks.

Cannabis withdrawal is defined in the *DSM-5* as clinically significant distress or impairment of social or occupational functioning seen approximately 1 week after cessation of heavy and prolonged use.[2] Withdrawal will involve the development of three or more of the following signs and symptoms: irritability, anger or aggression, anxiety, difficulty sleeping (i.e., insomnia, disturbing dreams), decreased appetite, restlessness, depressed mood. In addition, withdrawal will involve at least one physical symptom: abdominal pain, shakiness/tremors, sweating, fever, chills, severe headache. Significant individual variation has been reported regarding the severity and duration of withdrawal symptoms.

Before an accurate diagnosis of marijuana dependence can be made, a comprehensive assessment is required. Such assessment must take into account the duration of use, amount used daily, route of administration, and other substances of abuse. Also, general health and mental health conditions must be assessed to differentiate between symptoms that could be attributable to other substances or other physical and mental health conditions. A urine drug screen (UDS) is needed to identify the type of substances being abused. It is common to hear from substance users that some drug dealers add addictive substances such as heroin or fentanyl to their marijuana for secondary gain. A baseline UDS can help health care providers identify other undiagnosed opioid dependencies among marijuana users.

Managing dependence

Once an accurate diagnosis of marijuana dependence has been made, treatment options can be considered. Both pharmacological and psychosocial options have been studied.

Although a comprehensive review of the published literature indi-

cates insufficient evidence for a single broadly and consistently effective pharmacological treatment for cannabinoid dependence,[5] adjunctive treatment for nausea, anxiety, and insomnia can be helpful. Some studies have evaluated the effect of bupropion, divalproex, naltrexone, nefazodone, and oral THC in the management of cannabinoid withdrawal syndrome. Two randomized controlled trials found that replacement therapy and short-term dose tapering with synthetic cannabinoids was effective in reducing cravings, anxiety, feelings of misery, difficulty sleeping, and chills.[4,6] Nefazodone has been found to reduce anxiety and muscle pain.[6]

Psychosocial treatments of cannabinoid dependence have been tested in several studies. Motivational enhancement therapy (MET), cognitive-behavioral therapy (CBT), and contingency management (CM) have been carefully evaluated and have all shown promising results.

Motivational enhancement therapy uses principles of motivational psychology to produce a rapid change. MET consists of an initial assessment using various instruments followed by four individualized treatment sessions. The first two sessions focus on structured feedback from the initial assessment, future plans, and motivation for change. The final two sessions are for reinforcing progress, encouraging reassessment, and providing objective perspective on the process of change.[7]

Cognitive-behavioral therapy was originally developed to treat depression and has since been used to prevent relapse when treating substance dependence. CBT helps individuals identify and change problematic behaviors by enhancing their self-control and teaching them to use effective coping strategies. Individuals using CBT explore the positive and negative consequences of substance use, self-monitor for triggers, and employ strategies for coping with triggers, cravings, and high-risk situations.

Contingency management interventions are based on principles of behavioral modification and operant conditioning. First, CM therapists arrange the environment so that target behaviors (e.g., abstinence from cannabis) are readily detected through frequent monitoring and urinalysis. Second, therapists provide tangible reinforcement such as a gift certificate whenever the target behavior is demonstrated. Third, when the target behavior does not occur, therapists systematically withhold rewards or administer small punishments (e.g., withdrawal of methadone carry privileges).[8]

Findings indicate that although each of these interventions represents a reasonable and efficacious treatment approach, the combination of MET and CBT is more potent.[9]

Summary

Despite widespread use among adolescents and young adults in Canada, cannabinoid dependence is often underdiagnosed and undertreated. While no single pharmacological treatment for dependence has been identified, adjunctive treatment for nausea, anxiety, and insomnia and replacement therapy and short-term dose tapering with synthetic cannabinoids may be used to manage withdrawal symptoms. Long-term behavioral therapies, including motivational enhancement therapy, cognitive-behavioral therapy, and contingency management, may also be used to treat marijuana dependence.

Competing interests

None declared.

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Physicians access mentorship benefits through maternity program

Mentorship is an essential and meaningful component of professional development. The practice is a recognized form of teaching and is considered to be a means of identifying and managing professional and personal progress.[1] The mentoring process is a positive one, through which colleagues work together to develop careers and abilities.[2] The GPSC offers BC family doctors mentorship opportunities in a clinical learning environment through its Maternity Care for BC (MC4BC) program.

A mentorship process is facilitated by an experienced individual who provides support, direction, and an objective view on the development and progress of a colleague in his or her work environment.[3] Mentors encourage critical reflection, empowering mentees to solve their own problems. A good relationship between the mentor and mentee is vital and is founded on the mentor having good interpersonal skills, adequate time and accessibility, an open mind, and active listening skills.[1]

Doctors at all stages of practice can benefit from mentoring and many participate in lifelong, informal mentorship with colleagues. For some doctors, participating in a supportive mentoring process is important to getting the encouragement and support they need to be able to provide aspects of patient care that are of interest or are challenging for them.

Formal mentorship programs, such as MC4BC, can increase the benefit by providing resources for participants to be able to take the time to find the right mentor with the appropriate skills and knowledge.

MC4BC promotes, supports, and trains family doctors to reconnect with primary care maternity services through mentorship, hands-on experience, and financial support. The MC4BC program is tailored to each individual's learning needs and is flexible to meet those needs. Participants are eligible for taxable funding of up to $48 056.

MC4BC promotes, supports, and trains family doctors to reconnect with primary care maternity services through mentorship, hands-on experience, and financial support.

For up to 1 year either following completion of the MC4BC program or as a standalone part of the MC4BC program, participants may receive formal mentorship from a family doctor or a licensed health care provider who is registered with MC4BC as a mentor.

The mentorship process benefits mentees by providing them with the following:

- Improved self-confidence.
- Identified areas for future learning through a personalized, continual quality improvement plan.
- Increased skills, knowledge, and experience, in both clinical care and practice administration.
- A supportive environment in which strengths and challenges can be evaluated.
- Ongoing support and information provided in a rapidly changing environment.
- Networking opportunities, initially and throughout the mentoring process.
- Individual attention from experienced senior colleagues.
- Enhanced ability to keep up to date in a rapidly changing environment.

Mentorship is not a one-way process that benefits only the mentee. The developmental process fosters a dynamic, reciprocal relationship within a work environment.[4] By sharing experiences and knowledge—generally, or for a specific clinical area—doctors at all career stages can benefit from providing mentoring. The mentorship relationship can offer mentors the following benefits:

- Personal satisfaction of helping colleagues' development.
- Increased commitment to family medicine.
- Self-renewal and self-reflection.
- Opportunities to learn new perspectives.
- Revitalized interests.
- Opportunities to network and work in different teams.

Mentors who provide advice and support to participants through MC4BC via telephone, in-person, or video may be eligible for a stipend of up to approximately $5700 until March 2017. Mentoring activities may include debriefing a case, chart review, direct patient care advice, and support for quality improvement initiatives.

MC4BC has received extremely positive assessments from participants—almost 100% have agreed that MC4BC is an important support to family physicians because it

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This article is the opinion of the GPSC and has not been peer reviewed by the BCMJ *Editorial Board.*

Dr Keith C. Hammond 1935–2016

Dr Hammond was born in London, England, and received his primary medical degrees from Guy's Hospital (London University), to which he immediately added a diploma in obstetrics and gynecology. Dr Hammond practised as a government doctor for 2½ years in what was then the Federation of Rhodesia and Nyasaland. He was the first doctor on the scene when the plane carrying UN Secretary-General Dag Hammarskjöld crashed near Ndola Airport in 1961.

Upon returning to England, Dr Hammond obtained a diploma in anesthesia, met and married Gina, and then immigrated to Prince Albert, Saskatchewan, where he served as a general practitioner/anesthetist for 4 years. The family then returned to England to take a respite from general practice and to prepare to sail their 35-foot sloop *Genever* across the Atlantic to the Caribbean, where they stayed for nearly 2 years. During that time Dr Hammond worked in Tortola, British Virgin Islands, for 3 months and set up the first anesthetic machine on the San Blas Islands. In 1970 the family moved to Vancouver where Dr Hammond could obtain specialist training in radiology and where he then worked briefly as a researcher and diagnostic radiologist at the BC Cancer Agency. Dr Hammond joined the medical staff of Nanaimo Regional General Hospital in 1978 and served terms as head of the Department of Radiology and as a member of the hospital's Board of Directors. He retired in 2000.

Dr Hammond's eclectic interests were fuelled by an inquisitive and analytical mind. He excelled as a yachtsman. As an expert mechanic, what he couldn't fix he replaced with ingenious work-arounds. He bought a new Harley-Davidson, the last of the models with miles per hour on the speedometer, kept it in his den on the second floor of their Cape Cod–style home, and fired it up annually at their Christmas parties, giving his friends a good laugh and the house a good rattle. He took his family to Alaska and the high Arctic on their 20-foot powerboat, regularly windsurfed in Baja and Hawaii, wrote a successful information system software program for the Madrona Imaging clinic, and authored a partially autobiographical novel, *Twelve* (featuring Brother XII), which won an Independent Publisher's bronze medal. His often delightfully quirky, independent point of view on many topics, as humorous as it was refreshing, was always balanced with a generous dollop of common sense. An entertaining raconteur, he shared a wealth of vignettes based on his many amusing and sometimes harrowing adventures, medical and otherwise.

Dr Hammond endured with dignity the cruelty of rapidly advancing Parkinson disease. He leaves Gina, his devoted wife of 52 years; sons Tim (Kyoko) and Malcolm (Alison); and four grandchildren.

—John P. Whitelaw, MDCM
Nanaimo

Dr Erik Paterson 1941–2016

Dr Erik Paterson was born in Cambridge, grew up and was educated in Scotland, and qualified from the University of Glasgow School of Medicine in 1960. In 1970 Dr Paterson married the love of his life, Jinty Divens, and they emigrated to Canada's East Kootenays, where he worked as a GP until 2012. Dr Paterson's career was interrupted for a year in his mid-50s by acute leukemia and in his mid-60s by chemotherapy and radiation for carcinoma of the prostate. He succumbed to his final illness 2 months after it started, while holidaying in Hawaii.

Dr Paterson was a busy full-time GP with a large obstetrics practice and was an anesthetist at Creston Valley Hospital for 20 years. He was the first life member of the Society of General Practitioners of BC, and he received the Rural Service Award from the Society of Rural Physicians of Canada. He was, however, more than a busy GP. Dr Paterson made an immense commitment to the community of Creston, especially on environmental issues. In 1978 he received the Save the Kootenays Concerned Citizen Award for his

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in memoriam

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leading role in the successful environmental campaign to halt BC Hydro's Kootenay diversion project. Since 1994 Dr Paterson was trustee for the Mae Baker Bursary Fund, which has helped more than 140 RN and LPN candidates with the cost of education. From 1970 to 1980 he was the founding chair of the Advisory Committee of the Creston Valley Wildlife Management Authority and for many years he judged the Creston School District's Annual Science Fair.

Though few knew it, the breadth of Dr Paterson's interests and commitments was even wider. In 1978 he received the Dixie Annette Award from the Huxley Institute for Biosocial Research in New York. He practised chelation therapy and, in 2000, he was certified by the American Board of Chelation Therapy and was admitted into the International Orthomolecular Medicine Hall of Fame. In 1999 he was admitted into the American College for Advancement in Medicine. He concentrated research on the general practice aspects of nutritionally based treatment of disease and presented papers across Canada on numerous occasions.

One of Dr Paterson's other great loves was space. He was an amateur astronomer, did significant research into studies into the medical implications and economic benefits of large-scale human habitats in space, and presented papers from his research across the US.

Dr Paterson's father was an Arctic explorer, and Erik was thrilled when asked to represent his father at the 2013 centennial memorial for Ernest Shackleton's Antarctic expedition.

Jinty played a significant role in the success of Erik's accomplishments. She was the tactician who organized his work, whether it was in his general practice office or managing his other interests. Jinty did all this while looking after the home and bringing up their two daughters, Tara and Fiona, and later the two grandchildren, Ashley and Hann.

Dr Paterson was loved by all for he had the unique ability to cross generations. As my grandson, Nick, said, "He was one of those epic people one seldom meets for he was always enjoyable and could be a funny dinner companion."

—John O'Brien-Bell, MBBS
Surrey

gpsc

Continued from page 318

enhances the care they give patients, and they say the program has increased their confidence to perform obstetrical deliveries.

To participate in the MC4BC program as a mentor or mentee, visit www.gpscbc.ca.

—Karen Buhler, MD
—Tracy Devenish
Senior Analyst, Doctors of BC

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Thanks to the following advertisers for their support of this issue of the *BC Medical Journal*.

Recently deceased physicians

If a BC physician you knew well is recently deceased, consider submitting a piece for our "In Memoriam" section in the *BCMJ*. Include the deceased's dates of birth and death, full name and the name the deceased was best known by, key hospital and professional affiliations, relevant biographical data, and a high-resolution photo. Please limit your submission to a maximum of 500 words. Send the content and photo by e-mail to journal@doctorsofbc.ca.

Family caregivers: Essential partners in care

Many physicians will admit to experiencing stress and frustration when navigating the health care system on behalf of a patient—a system that we know and work with daily! Now imagine that you are not a trained health care provider and instead you are a family caregiver who is new to the system and administering medications, making multiple appointments, learning new symptoms and signs to watch for, as well as providing basic care for an adult. Then, add to that the distress of watching a loved one with an illness that may rob them of the ability to function physically and cognitively. Adapting to this "new normal" takes resilience, support, and functional relationships with others.[1]

It is estimated that family caregivers provide 70% to 75% of care for people receiving home care in Canada.[2] Based on the 2012 General Social Survey,[3] Statistics Canada estimates that, in a given year, 1 million British Columbians actively provide care as a caregiver.

A recent report by the Office of the Seniors Advocate BC found that 29% of caregivers caring for a chronically ill or disabled senior in BC are distressed.[4] Distress can be physical (helping with activities of daily life), psychological (anxiety about managing work while caring for aging parents and parenting children), or spiritual (wondering how they will cope). Financial issues are frequently a source of caregiver distress as well.

Doctors of BC's Council on Health Promotion (COHP) believes that physicians are well positioned to support caregivers. As part of a project about caregivers, COHP is developing a physician toolkit that will provide practical actions that a physician (and their practice) can take to identify caregivers, monitor caregiver well-being, connect caregivers to community resources and services, and include caregivers in patient care planning and implementation. The toolkit will also include a validated tool to monitor caregiver distress, which can be self-administered by the caregiver in the physician's office or at home.

In conjunction with the physician toolkit, Doctors of BC is developing a policy paper that advocates for a health care planning and delivery approach that recognizes, includes, and supports caregivers as partners in care. The policy paper will commit Doctors of BC to developing practical resources to support physicians and raising physicians' awareness of their role in supporting caregivers and of available community resources. In addition, Doctors of BC supports enhanced CME training to help physicians engage with caregivers.

The policy paper will also make a number of recommendations:

1. That the BC government develop a strategy to formally recognize caregivers as partners in health care delivery and to require the consideration of caregiver needs in health and social service planning and provision.
2. That because certain patient populations require additional attention (those with mental illness or cognitive impairments, or facing language, cultural, or socioeconomic barriers to accessing health care), the BC Ministry of Health consider patient navigator models to support these populations and increased access to case managers for all home care patients in order to shorten wait times for accessing home care and enable more in-depth case management.
3. That the federal government amend current caregiver benefits to be payable to all caregivers, not just those who earn enough income to pay taxes.

The policy paper and physician toolkit will be available in the fall of 2016. Stay tuned for further updates.

—Romayne Gallagher, MD
—Jon Wong, MPP

Additional statistics about Canadian caregivers:[3]

- 54% are female.
- 56% are 45 years of age or older.
- 15% are young caregivers between 15 to 24 years of age.
- 28% are sandwiched between caregiving and childrearing.
- 89% provide care for 1 year or longer.
- Caregivers who are 65 years of age and older spend the most hours out of any demographic providing care.

This article is the opinion of the Council on Health Promotion and has not been peer reviewed by the BCMJ *Editorial Board.*

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Hand therapy for your injured worker patient

In 2015 WorkSafeBC's Hand Therapy Program treated 4141 injured workers. The goal: to provide timely, specialized treatment to help injured workers get back on the job as soon as it is safe to do so.

The program is delivered through our contracted network of 42 hand-therapy clinics around the province. These clinics, staffed by certified hand therapists, provide services to workers who have sustained injuries to the upper extremity, below shoulder level.

Referrals

Workers either self-refer to one of the clinics, or are referred by a family physician, hand surgeon, or WorkSafeBC. Physicians may refer an injured worker patient directly to one of the contracted hand-therapy providers, or recommend to the case manager that the injured worker be referred to the program.

Hand-injury treatment: An example

The following example illustrates how a typical hand injury might be treated within our hand-therapy framework.

A 45-year-old carpenter—we'll call him Don—was moving a large doorframe when he accidentally caught his left fifth digit in the doorframe cutout, dislocating it at the PIP joint. Don went to the emergency department, where the digit was X-rayed, reduced under local anesthetic, X-rayed again to confirm the absence of fractures, and then placed in a large protective splint.

One week later Don followed up with his family physician, who referred him to one of our certified hand-therapy clinics. There, the hand therapist told Don he had sustained a boutonniere deformity–type injury and required a hand-surgery consultation. She then gave the case manager an update and sent a referral to our Visiting Specialist Clinic (VSC), requesting immediate consultation with a hand surgeon.

That same week a VSC hand surgeon determined that Don's boutonniere deformity required immediate surgical intervention. Don underwent percutaneous pinning of the fifth PIP joint to stabilize it while the soft tissue damage healed.

Three days postsurgery Don returned to the hand-therapy clinic with a referral for a thermoplastic resting splint to protect the immobilized digit while allowing range of motion to the unaffected joints. The referral also requested ongoing hand therapy to unaffected joints until the percutaneous pin was removed. Don went to hand therapy two to three times per week.

Five weeks postsurgery the hand surgeon removed the percutaneous pin and referred Don back to the hand therapist. Don slowly progressed with his passive range of motion, active range of motion, and splinting.

At the third week of mobilization the hand therapist contacted Don's employer to discuss return-to-work opportunities. The employer, a mid-size construction company, was able to offer Don appropriate modified duties and hours while he continued hand therapy.

After 2 additional weeks of progressive strengthening and functional exercises the hand therapist contacted Don's employer to discuss and establish a progressive graduated return-to-work plan. Don continued to work with the hand therapist, completed the graduated return-to-work plan over a 3-week period, and returned to work without limitations.

The hand therapist continued to treat Don for 2 weeks beyond his return to work to maximize recovery and durable return to work, and then discharged him, fit to return to work with no limitations and no permanent functional impairment.

Further information

For more information on WorkSafeBC's Hand Therapy Program please contact our Health Care Services team at 604 232-7787 or toll free 1 888 967-5377, or visit the hand-therapy page at worksafebc.com.

If you have questions regarding a specific worker patient's hand injury, please call a medical advisor in your nearest WorkSafeBC office.

—Gabrielle Jacobson, MScPT
Program Manager, Financial Services and Health Care Programs

This article is the opinion of WorkSafeBC and has not been peer reviewed by the BCMJ *Editorial Board.*

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—Skye Raffard, MD, Williams Lake, BC, Canada

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Doctors of BC Annual Meeting 2016

4 June 2016, Pan Pacific Hotel, Vancouver, BC

By Joanne Jablkowski

Chaired by Dr Michael Golbey, the 2016 annual meeting and assembly ran with efficiency and precision. Here are a few highlights from the meeting.

President's Report

Past President Dr Charles Webb reflected on his year in office, mentioning the significant progress made regarding young member engagement and the continuing work toward a new governance structure. Dr Webb also reiterated his thanks to the organization's staff, who made serving his term as president a pleasure, noting that the small crowd in attendance at the meeting was a testament to members' satisfaction with the association and a positive reflection of the thorough coverage and dissemination of information that Doctors of BC provides to the membership throughout the year.

Ms Jablkowski is the associate editor of the *BCMJ*. This article has not been peer reviewed by the *BCMJ* Editorial Board.

Chief Executive Officer's Report

Mr Allan Seckel took time to thank everyone who works to make Doctors of BC a success, including the 207 employees across the organization and partner programs, and highlighted three notable activities from the past year: first, the engagement of facility-based physicians and the efforts in place to meet the successes that Divisions of Family Practice has achieved for family doctors; second, the progress made in the ongoing building renovations that will accommodate employees without increasing the organization's footprint in the building; and third, the association's achievement in being certified as a Great Place to Work in 2016, and the impact that a highly engaged workforce has on supporting the membership to also be highly engaged with their work in the community.

Report of the Audit and Finance Committee

Dr Michael Curry, Chair of Audit and Finance Committee, spoke about the organization's strong financial position and thanked committee members and senior staff in the association for their hard work over the course of the year. Dr Curry also proposed a motion that there be no dues increase in the coming year, thanks to the association's strong financial circumstances. The motion was accepted.

Financial highlights for 2015 are provided on page 13 of the *Doctors of BC 2015–2016 Annual Report*, along with a link to the complete audited

Doctors of BC Elected Officials 2016–2017

President: Dr Alan Ruddiman

Past President: Dr Charles Webb

President-elect: Dr Trina Larsen Soles

Chair of the General Assembly: Dr Eric Cadesky

Honorary Secretary Treasurer: Dr David Wilson

Drs Jeff Dresselhuis and Kathleen Ross

Drs Mark Corbett and Daniel Horvat

Drs Eric Cadesky and David Wilton

financial statements (doctorsofbc.ca/who-we-are/annual-report).

Dr Mark Corbett, Dr Michael Curry, and Dr Michelle Chiu were elected by the assembly as the members-at-large of the Audit and Finance Committee for the coming year.

Report of the Governance Committee

Dr Bill Cavers, Governance Committee chair, provided a quick update on the proposed restructuring of the association's governance model, which would create a small Board with a Representative Assembly. Visit the Doctors of BC website in July/August for more information about a web-based consultation opportunity to provide input about the new proposed model.

Report of the Society of Specialists

Dr John Falconer, Specialists of BC president, noted that the society will be approaching access and measurement as a theme for the upcoming year, and will begin a project to measure, among other things, wait times for surgeries and to tackle the question of how to improve access to care without increasing costs.

New business: How to train and retain

After a thoughtful discussion about the challenge of replacing the many retiring physicians in BC, the need to develop a strategy to train and retain physicians in rural areas, and the need for expanded education for physicians in other areas and specialties, the following two motions were passed:

1. That the SGP and Doctors of BC engage with the Ministry of Health, UBC, and health authorities to support the medical education of future physicians in longitudinal primary care, and that this be considered for future negotiations.
2. That Doctors of BC, SGP, and Specialists of BC engage with the Ministry of Health, UBC, and health authorities to develop and address an appropriate physician human resource plan and strategic road map to meet the needs of the population of BC.

Learn more about Doctors of BC

To learn more about Doctors of BC activities and operations, read the online *Doctors of BC 2015–2016 Annual Report*, its associated *2015–2016 White Report*, and the full financial statements, available at doctorsofbc.ca/who-we-are/annual-report.

Clockwise from top left: **1.** *Drs John O'Brien-Bell and Lionel Tenby* **2.** *Drs Shirley Sze and Barb Blumenauer* **3.** *Dr Sanjay Khandelwal* **4.** *Dr Richard Merchant* **5.** *Dr Cheryl Hume* **6.** *Dr Eugene Leduc*

Excerpts from remarks made by new Doctors of BC president Alan Ruddiman at his lunchtime address

"I've not forgotten it was a bit of a journey to get here—more so than in previous elections. And I don't take for granted there are varied and strong opinions among our membership as to the direction our health care system could and should be taking."

. . .

"I hope that during this upcoming year, all of us—the Board, family doctors, specialist physicians, urban and rural practitioners, young doctors, quite frankly all doctors—can work together and support one another. . . . We have a formidable challenge facing us, all of us in this room, all of us involved in health care today. We need not look further than the 2014 comparative scorecard from the Commonwealth Fund highlights, Canada. Out of 11 health care systems in advanced countries, Canada came in a lowly number 10, just ahead of the USA at number 11."

. . .

Medical professionalism

"Physicians take great pride in our profession's longstanding traditions of altruism, the use of scientific evidence, and the value and merits of the social contract. We're aware of our duty to take good care of our patients although not to the extent that physicians sacrifice their health. I believe we also have a duty to society as whole."

. . .

"I have been a family doctor in Oliver, BC, for nearly 20 years, but for the previous 5 I practised in other rural parts of the country. Like many of you, I had an outstanding education in medicine; many professors and doctors instilled in me a passion for practice and continuous learning, lifelong learning. I truly value teaching and have become involved in training medical students.

I also value being a rural generalist physician because I get to experience all areas of system, and how it works or doesn't. I experience both the frustrations and the rewards."

. . .

"Even though our association is located at 1665 West Broadway in Vancouver, I will make it my business to connect and consult broadly with specialists and generalists across the province. I will endeavor to connect doctors with each other, and doctors with their association."

. . .

Support of our association

"As you're aware, nearly 3 years ago, Doctors of BC developed a strategic plan to help guide the profession forward. That strategic plan has helped us take greater leadership and a confirmed direction. The ultimate goal of the Strategic Plan—to maximize the professional satisfaction of doctors—is accomplished by achieving a high standard of health care and fair economic reward. Today we have 35 divisions of family practice in 230 communities around the province. . . . As well, we now have nearly 50 fully functioning medical staff associations (MSAs). These MSAs have their own governance structure, funding, and resources—all this so that facility-based doctors can more effectively engage and contribute to health authority decision making. We have made great strides in just a couple of years."

. . .

Leadership in our association and on the Board

"Our Board is a fascinating example of how different values and opinions can work together. Just like I wouldn't take for granted the differing opinions among the membership, I truly value the different opinions at the Board table. I appreciate every Board member who contributes to discussions and wants to make a meaningful difference. One of the qualities I would like to bring to the Board this year is temperance. This may help us be more efficient with our work."

. . .

"To help make the work of the Board more apparent to everyday members, I have a few steps I am hoping to introduce and implement.

"One step is to bring the association to members, since they can't all come to us. So why don't we bring a camera into the association and introduce the staff, show off the building, visit the boardroom."

. . .

"Another step is to invite a different physician member to attend Board meetings. An opportunity for the Board to meet and hear the ideas and thoughts of members would be mutually beneficial. As I travel around the province I will be meeting with many physicians. I will also be on the lookout for doctors who may have something of interest to offer the Board, and who can take something back and share it with their physician community."

. . .

"This fall, a proposed model for governance reform—one that will see a smaller Board plus a larger Representative Assembly—will be sent out to members. We should know the results of the referendum soon after, and what the future makeup of the Board will look like.

"Your Board has just approved a position paper on family caregivers in this province. Informal caregivers—such as spouses, loved ones, extended family—are required to do more and more, with less and less. Their health and safety are now becoming serious concerns. Doctors are well positioned to support and advocate for informal caregivers and can have a positive impact on their health and well-being. Our official position and accompanying resources will be released in September."

. . .

The environment we practise in, the world we work in

"Today the profession is being challenged. We are under the daily threats of the corporatization of medicine, and the efforts by some to de-professionalize our role as the recognized and fully trained experts in medicine."

. . .

"We are experiencing a not-so-subtle shift of nonclinical, administrative, and clerical tasks to physicians—this is not a productive use of our time and energy. The issue is that our two work models simply clash. Doctors are the core experts in the knowledge of medicine—we certainly don't want to give that away."

. . .

"Our divisions of family practice continue to grow. With regard to the MSAs, Doctors of BC continues to work with health authorities to create a constructive environment that promotes professional working relationships. We need an environment and conditions to support front-line physicians to be more engaged, more influential, and to have a more powerful voice to promote innovation and reform with health authorities.

"I've also heard from our specialist colleagues. We need to do more to support them. And [we need an environment] in which every health authority CEO has signed the memorandum of understanding to support this move."

. . .

Conclusion

"You know, we are fortunate to have made the choice to pursue medicine because today we get to experience a meaningful and yet truly humbling professional career. We are highly educated, well trained, and indeed the experts in modern-day medicine. However, our patients, health care colleagues, and governments must not take that for granted."

. . .

"Yes, we can always do better. Ladies and gentlemen, we cannot rest or be complacent. We cannot rest on our laurels. So please, let's all work together. Let's rebuild the foundation upon which our sense of professionalism is based. We need to improve our scorecard. We should place better than 10th out of 11."

—Alan Ruddiman, MBBCh, Dip PEMP, FRRMS

Dr Shovita Padhi

Dr James Chrones

Drs Owen Williamson and Kim Williamson

2016 annual Doctors of BC awards

Drs Derek Poteryko, Ian Gillespie, and Kelvin Houghton

Dr David M. Bachop Awards

Dr David Bachop was born in Scotland and graduated from Edinburgh University in 1955. He interned at the Royal Infirmary where he won the Murdoch-Brown Silver Medal in clinical medicine. Dr Bachop practised general medicine in Vancouver from 1956 until his death in 1988. His dedication to patients and the principles of clinical medicine won him the respect of his patients and colleagues. In 1988, the Dr David Bachop Awards Fund was established to honor his memory and to uphold the principles by which he lived his life.

Silver Medal in General Medical Practice: **Dr Sarah Yager**

Gold Medal for Distinguished Medical Service: **Dr Katherine Paton**

Dr Don Rix Award for Physician Leadership

Dr Donald Rix was the founder and chair of MDS Metro Laboratory Services, now known as LifeLabs Medical Laboratory Services. He was a pathologist, philanthropist, community volunteer, and businessman until his death in 2009. The Dr Don Rix Award for Physician Leadership was established in 2010 to recognize exemplary physician leadership and lifetime achievement that is so outstanding that it serves as an inspiration and a challenge to the medical profession in British Columbia.

Dr Don Rix Award for Physician Leadership: **Dr David Hardwick**

Dr Campbell Joseph Coady Award

Dr Cam Coady was born in Vancouver, educated at Vancouver College and the University of British Columbia, and subsequently graduated in medicine from McGill University in 1949. He became the director of laboratories at the Royal Columbian Hospital in January 1958, where he developed a unique health care delivery program for laboratory medicine in the Fraser Valley area of British Columbia. Dr Coady took a keen interest in professional, hospital, medical, and technical organizations, serving on many committees and advisory bodies. Dr

Dr John Fleetham and Mrs Meribeth Fleetham

Dr Kenneth Fung and Mrs Margaret Fung

Dr Brandon Sheffield and Dr Barry Turchen

L–R: Mr Allan Seckel, Drs David Fairholm and Charles Webb

Coady died in May 1988, and the Dr Coady Foundation was established to commemorate his great love of medicine and to ensure that his objectives to achieve excellence in health care continue to be fostered.

Dr Campbell Joseph Coady Award: **Dr Shelley Ross**

Doctors of BC Changemaker Awards

Changemaker Awards recognize a Doctors of BC medical resident member and a medical student member who have demonstrated exemplary leadership and dedication to the cause of advancing the policies, views, and goals of Doctors of BC, or of a medical resident/student organization in BC, through grassroots advocacy efforts.

Student Advocate Award: **Mr Arun Agha**

Resident Advocate Award: **Dr Brandon Sheffield**

Doctors of BC Excellence in Health Promotion Award

This annual award honors the specific efforts of an individual and a corporate sector group striving to improve the health and wellness of British Columbians through dedicated health promotion activities. In recognizing these efforts, Doctors of BC hopes to encourage and foster health promotion work in the province.

Individual Award: **Dr Kelvin Houghton**

Individual Award: **Dr Derek Poteryko**

Non-Profit Award: **Opt BC (Options for Sexual Health),** accepted by Dr Marisa Collins, Medical Director

Doctors of BC Silver Medal of Service

Established in 1986, the Doctors of BC Silver Medal of Service confers the association's highest honor. Criteria for the award are long and distinguished service to the association, outstanding contributions to medicine or political involvement in BC or Canada, or outstanding contributions by a layperson to medicine or to the welfare of the people of BC or Canada.

Doctors of BC Silver Medal of Service: **Dr Paul Dubord**

Doctors of BC Silver Medal of Service: **Dr David Fairholm**

Doctors of BC Silver Medal of Service: **Dr Michael Golbey**

CMA Honorary Membership Awards

Dr Geoff Appleton
Dr John Fleetham
Dr Kenneth Fung
Dr William McDonald
Dr Evelyn Shukin
Dr Paul Thiessen
Dr Hugh Tildesley, posthumously

Mr Arun Agha

Dr Granger Avery and Mrs Winnie Avery

Dr Michael Golbey and Mrs Gloria Golbey

Drs Paul Dubord and Evelyn Shukin

college library

Finding e-books at the College Library

The College Library provides 24/7 access to electronic books (e-books) that can be read either on your computer or on most mobile devices. Library users have access to e-book versions of *Harrison's Principles of Internal Medicine*, *Ferri's Clinical Advisor 2016*, the *DSM-5*, and hundreds of other current clinical titles across multiple disciplines.

To retrieve a list of e-books in our collection, search the Library's online public catalogue at http://szasz.cpsbc.ca. Enter any text into the search box and select the e-book option to limit the results to e-books. Click the search button to display a list of related e-books. Click on a title in the search results to open the full record, and under the Media Link heading click on Available to College members to open the e-book on your device. If you are not logged in to the Library website, you will be prompted to enter your CPSID and password to display the e-book.

For a more precise retrieval of subject-specific e-books, use the catalogue's Advanced Search option. As an example, you may enter "family practice" in the search field and limit the search to e-books to retrieve results from the Library's collection specific to that subject area.

As well as e-books, the Library has many other e-resources available to College registrants. Explore the available e-resources at www.cpsbc.ca/library and contact library staff at medlib@cpsbc.ca for any assistance regarding our many e-resources.

—Robert Melrose
Librarian

This article is the opinion of the Library of the College of Physicians and Surgeons of BC and has not been peer reviewed by the BCMJ *Editorial Board.*

billing tips

Billing and audit: Avoiding the pitfalls

I am frequently asked by physicians, "What could get me audited?" There is no simple answer.

In any system that pays for services, there is an audit process. Approximately 103 million claims are processed each year by Health Insurance BC. The system allows physicians to submit billings in most cases without pre-approval. The system is built on trust and is designed to pay. As a result, physicians may continue to bill incorrectly for many years, and it is not until they are audited that they become aware of a problem.

By heeding the following advice you may reduce the chances of triggering an audit and also reduce the chances of a bad outcome if you are audited:

- Don't rely on MSP to tell you that you did not bill something correctly. Just because you billed for it and were paid does not mean that you billed correctly.
- Take the time to document what you do.
- You or the office you are working in must bill *your* services under *your* practitioner number for locum work.
- Read the Preamble and your section of the *Doctors of BC Guide to Fees*.
- Be cautious about following billing advice from well-intentioned colleagues.
- Look at your Practice Mini-Profile, and do not ignore flags.
- Don't get creative with the fee schedule.
- Do not bill for yourself or family members.
- Avoid ordering unnecessary lab tests.
- Look at your remittances. If something doesn't look right, phone MSP.
- Do not ignore a letter from the Billing Integrity Program.
- If you get advice from MSP billing support, document whom you spoke with, when, and what you were told.

You are accountable for what is billed under your MSP billing number. Passing the blame will not help you if you are audited.

—Keith J. White, MD
Chair, Patterns of Practice Committee

This article is the opinion of the Patterns of Practice Committee and has not been peer reviewed by the BCMJ *Editorial Board. For further information contact Juanita Grant, audit and billing advisor, Physician and External Affairs, at 604 638-2829 or jgrant@doctorsofbc.ca.*

Optimize your EMRs

Doctors can now access simple and useful Practice Support Program (PSP) screening and diagnostic tools in their EMRs. PSP has partnered with EMR vendors to provide clinical, patient, and community resources. These specialized tools help identify patients with often-underdiagnosed conditions such as chronic pain, adult mental health, child and youth mental health, heart failure, and chronic obstructive pulmonary disorder. The free EMR tools make ongoing patient care easier by linking to patient registries, which simplifies the scheduling of recall appointments and periodic testing. For more information, visit www.pspbc.ca.

College: New professional standard on safe prescribing

The College of Physicians and Surgeons of BC has adopted a new professional standard, Safe Prescribing of Drugs with Potential for Misuse/Diversion, to assist physicians with prescribing opioids, benzodiazepines, and other medications. Many of the principles contained in the new standard reflect the US Centers for Disease Control and Prevention's (CDC) Guideline for Prescribing Opioids for Chronic Pain – United States 2016, which the Board of the College of Physicians and Surgeons of BC endorsed in April 2016.

The document contains both professional standards, which must be adhered to, as well as recommendations for physicians to consider based on their patients' situation and their own clinical judgment.

Specifically, the document directs physicians to have documented discussions with their patients about the benefits of nonpharmacologic and non-opioid therapies for the treatment of chronic pain. If a risk-benefit analysis indicates that opioid therapy is appropriate, then physicians are cautioned to avoid prescribing opioid pain medication and benzodiazepines concurrently, and to prescribe the lowest effective dosage with ongoing reassessment of the patient, including routine urine testing.

The document further directs that physicians review a patient's medication history on PharmaNet (when access is available) before prescribing opioids, sedatives, or stimulants. If access is not available, physicians are expected to consult with colleagues, including pharmacists, and prescribe only necessary medications until the patient's dispensing history is available.

Safe Prescribing of Drugs with Potential for Misuse/Diversion is available on the College website at www.cpsbc.ca/files/pdf/PSG-Safe-Prescribing.pdf. It replaces an earlier document that outlined precautions in prescribing opiates, Prescribing Principles for Chronic Non-Cancer Pain.

Resource for retiring physicians

The Vancouver Division of Family Practice has developed a 52-page booklet providing guidance for doctors at any stage of retirement planning. *How to Retire Guide* covers everything from starting a plan, to finding a replacement doctor, to closing a practice. View or download the guide from the Vancouver Division's website (https://divisionsbc.ca/vancouver/physicianretirement), or as part of the resources that form the Recruitment and Retention Toolkit (www.divisionsbc.ca/provincial/recruitmentretention).

Drop in walking speed predicts cognitive decline

A study led by Vancouver Coastal Health Research Institute (VCHRI) scientist Dr John Best examined the relationship between cognitive decline and gait speed (measured in metres per second) and found that a significant decrease in gait speed is a possible predictor of future cognitive decline among older adults.

Dr Best and colleagues collaborated with US researchers and drew from the Health, Aging, and Body Composition Study (a large longitudinal study of American older adults) to access the required longitudinal data. Researchers looked at a cohort of 2876 older adults (aged 70 to 79 years at baseline), with an equal sampling of men and women, who were all initially well-functioning community-dwellers studied over a 9-year period. Older adults who showed a decline in gait speed that was larger than the average decline found in their peers during the first half of the study period tended to show a stronger decline in cognition during the second half of the study period. And the reciprocal relationship was somewhat evident, but weaker. Researchers noted that the findings also point to a bit of directionality or a sequencing of aging such that you primarily see it in mobility first and then it might transition into changes in cognition.

Findings may lead researchers and clinicians to be better able to define populations where intervention to improve cognitive performance would be of greatest benefit.

Dr Best is a researcher at the Djavad Mowafaghian Centre for Brain Health and the Centre for Hip Health and Mobility, and a research associate in the Department of Physical Therapy, Faculty of Medicine, at the University of British Columbia.

The study, "An evaluation of the longitudinal, bidirectional associations between gait speed and cognition in older women and men," is

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published in the *Journals of Gerontology: Series A: Biological Sciences and Medical Sciences* and is available at http://biomedgerontology.oxfordjournals.org/content/early/2016/04/10/gerona.glw066.abstract (login required).

Genetic cause of multiple sclerosis

Scientists at the University of British Columbia and Vancouver Coastal Health have proven that multiple sclerosis can be caused by a single genetic mutation—a rare alteration in DNA that makes it very likely a person will develop the more devastating form of the neurological disease.

The mutation was found in two Canadian families that had several members diagnosed with a rapidly progressive type of MS. The discovery of this mutation should erase doubts that at least some forms of MS are inherited. The prevailing view has been that a combination of many genetic variations cause a slight increase in susceptibility. In the two families described in this study, two-thirds of the people with the mutation developed the disease.

Canada has one of the highest rates of MS in the world. An estimated 100 000 Canadians are living with MS, and the disease is most often diagnosed in young adults, aged 15 to 40. Although only one in 1000 MS patients appears to have this mutation, its discovery helps reveal the biological pathway that leads to the rapidly progressive form of the disease, accounting for about 15% of people with MS. The discovery could also provide insight into the more common, relapsing-remitting form of MS, because that disease gradually becomes progressive in most cases.

Co-author Dr Anthony Traboulsee, the MS Society of Canada Research Chair at UBC and director of Vancouver Coastal Health's MS and Neuromyelitis Optica Clinic, notes that if a person has this gene, chances are they will develop MS and rapidly deteriorate. Screening for the mutation in high-risk individuals could enable earlier diagnosis and treatment before symptoms appear.

The findings could also help in the search for therapies that act on the gene itself or counteract the mutation's disease-causing effects.

Senior author Dr Carles Vilarino-Guell, assistant professor of medical genetics, and member of the Djavad Mowafaghian Centre for Brain Health, suggests that the mutation puts people at the edge of a cliff, but something still has to give them the push to set the disease process in motion.

The families with this mutation had donated to a Canada-wide collection of blood samples from people with MS, begun in 1993 by co-author Dr A. Dessa Sadovnick, a UBC professor of medical genetics and neurology. The 20-year project has samples from 4400 people with MS, plus 8600 blood relatives.

The study, "Nuclear receptor NR1H3 in familial multiple sclerosis," is published in the journal *Neuron* and is available online at http://dx.doi.org/10.1016/j.neuron.2016.04.039.

Virtual game helps young cancer patients

A virtual reality game that helps youth deal with cancer treatment is the latest pain management tool being developed in SFU's Pain Studies Lab. The game was created by two students in the university's School of Interactive Arts and Technology who spent time in hospital as youth, Mr Henry Lo and Ms Janice Ng.

During their research the students discovered that most pain studies involve adults rather than teenagers and youth, while it is younger patients who often experience pain and boredom when they are stuck in bed, and discomfort can be more extreme at a younger age.

Their creation, Farmooo, is inspired by games such as Pain Squad, Farmville (a 2D farm simulation), and Gardening Mama. The students tailored the game to the special needs of patients, who can conduct physical tasks in the virtual farm by using simple hand movements. The game is aimed at 12- to 18-year-olds and is run on a screen that plays at 70 frames per second to prevent dizziness.

Both students have spent extended periods of time in hospital—Mr Lo was diagnosed with lymphoma when he was in grade 11 and required chemotherapy treatment, and Ms Ng spent many hours in hospital with ear ailments. Their experiences led to a desire to develop games and software to speed up medical procedures and eliminate discomfort for patients and families.

SFU Professor Diane Gromala supervised the work and notes that the game is the latest in the lab's efforts to develop virtual reality approaches to address health care issues. Professor Gromala holds a Canada Research Chair in Computational Technologies for Transforming Pain at SFU, and has spent nearly 25 years creating systems to address acute, chronic, and cancer pain.

Farmooo will be tested later this year at BC Children's Hospital.

Forest fires: A clinician primer

Wildfire smoke poses public health risks for populations both near to and far from the direct threat of fire. Here we offer evidence-based responses to clinicians' questions on the health effects of smoke, and highlight tools for situational awareness and public preparedness during wildfire events.

Who is exposed to wildfire smoke?

Wildfire smoke causes episodes of the worst air quality that most rural and urban Canadian populations will ever experience. Both rural and urban populations can be affected by wildfire smoke, although exposures may be higher and last longer in rural areas that are closer to fires.

What is in wildfire smoke?

Wildfire smoke is a complex mixture of fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), volatile organic compounds (VOCs), and other air toxins such as heavy metals. The constituents of smoke can lead to the formation of ground-level ozone (O_3) on sunny days. $PM_{2.5}$ is the principal public health threat from short-term smoke exposure.

What health effects are most associated with wildfire smoke exposure?

- Irritation of the upper mucosa, especially to the eyes and throat.
- Exacerbation of chronic diseases such as asthma, COPD, and heart disease, especially in those whose disease is severe or poorly controlled.
- Small increases in all-cause mortality.
- Reduced birth weight.

This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ *Editorial Board.*

Who is at increased risk for adverse health effects from wildfire smoke?

- Anyone with a chronic condition that affects their day-to-day health, especially respiratory or cardiovascular diseases.
- Pregnant women.
- Infants, young children, and elderly people.

Are air cleaners effective?

Air cleaners with HEPA filters or electrostatic precipitators can lower indoor concentrations of $PM_{2.5}$ and reduce symptoms. Their effectiveness depends on the intensity of the smoke, room size, air exchange rate, and their placement within the room.

Tools for situational awareness in BC

- National smoke forecasts: http://firesmoke.ca/forecasts/BSC00CA12/current and https://weather.gc.ca/firework.
- Real-time air-quality monitoring, including the Air Quality Health Index: www.bcairquality.ca/readings/index.html.
- Real-time assessment of the smell and visibility of smoke.
- Smoky-skies advisories issued when smoke is likely to have transient effects on local air quality.

How can individuals protect themselves from the health effects of wildfire smoke?

We cannot control wildfire smoke, so the best defence is to be prepared.

- People with chronic diseases should carry rescue medications at all times, keep extras at home, and know what to do if they cannot bring symptoms under control.
- Buy a home air cleaner with a HEPA filter or electrostatic precipitator before the smoke arrives, or seek cleaner air in large public buildings.
- Reduce outdoor activities and physical exertion.
- Stay hydrated.

How can clinicians protect their patients?

- Talk to patients about the risks of wildfire smoke and the benefits of home air cleaners.
- Update self-management plans for chronic diseases, and update prescriptions for maintenance and rescue medications before the fire season begins.

The BC Centre for Disease Control leads internationally recognized epidemiologic research and public health surveillance related to wildfire smoke. We have been the first to demonstrate the utility of smoke forecasts[1,2] for public health protection, and the first to implement passive surveillance systems using satellite imagery and pharmaceutical data. The BC Asthma Monitoring System has been recognized by Accreditation Canada as a leading public health practice, with weekly reports made available to medical health officers across the province during the fire season.[2]

—Hortense Tabien Nsoh, MD
—Sarah B. Henderson, PhD
—Tom Kosatsky, MD

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Additional resources

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calendar

MEDICAL CBT

Various locations and dates

When you learn medical cognitive behavior therapy's ultra-brief techniques, you'll feel much more comfortable handling the many "supratentorial issues" in your practice. Choose from the following workshops, each accredited for at least 12 Mainpro-C credits: Banff—Banff Delta Royal Canadian Lodge (11–13 Jul); Whistler—Delta Whistler Suites (18–20 Jul); British Isles cruise—*Celebrity Silhouette* (6–20 Aug); Toronto—Sheraton Centre (26–27 Aug); Vancouver—Westin Vancouver Airport (16–17 Sep); Scottsdale—Fairmont Scottsdale Princess (24–26 Nov); Caribbean cruise—*Disney Fantasy* (10–17 Dec); Disney World—Grand Floridian Resort (19–21 Dec); Mexico—Iberostar Mayan Riviera (18–20 Jan), Bahamas—Atlantis Resort (9–12 Feb 2017); Las Vegas—Aria Resort (15–17 Feb); Maui—Sheraton K'anapali (27–29 Feb); Whistler—Delta Whistler Suites (20–22 Mar); Kauai—Grand Hyatt (10–12 Apr 2017); South Pacific cruise—*Paul Gauguin* (15–29 Apr 2017); Mediterranean cruise—*Celebrity Reflection* (9–20 Oct 2017). CBT Canada is a national winner of the CFPC's CME Program Award and is celebrating its 20th anniversary this year. Lead faculty Greg Dubord, MD, has given over 300 CBT workshops and is a recent University of Toronto CME Teacher of the Year. For details and to register visit www.cbt.ca or call 1 877 466-8228. Look for early-bird deadlines.

OCCUPATIONAL MEDICINE COURSES

Self-learning course, Sep–May

The Foundation Course in Occupational Medicine, developed at the University of Alberta, is now being presented across Canada in two parts. Our British Columbia Part-A course is facilitated by three BC occupational physicians and runs from September to May by monthly teleconferences and two full-day face-to-face Vancouver-based workshops (21 Jan and 27–28 May). This practical, case-based, group learning curriculum enhances the effectiveness of primary care and community-based physicians in dealing with occupational medicine cases including fitness-to-work determinations and disability prevention and management. Course enrollment is limited to 15 participants to enhance the small-group experience. This course (Part A) has been accredited by the CFPC for up to 111 M1-MainPro credits. Those completing Part A can progress to the Part-B course. Participants who pass written exams on both parts are eligible for accreditation from the Canadian Board of Occupational Medicine. Further information visit the Foundation's website at www.foundationcourse.ualberta.ca.

ST. PAUL'S EMERGENCY MED UPDATE

Whistler, 22–25 Sep (Thu–Sun)

Join us at the Whistler Conference Centre for the 14th annual St. Paul's conference—4 exciting days of

BCMJ's CME listings

Rates: $75 for up to 150 words (maximum), plus GST per month; there is no partial rate. If the course or event is over before an issue of the *BCMJ* comes out, there is no discount. VISA and MasterCard accepted.

Deadlines:
Online: Every Thursday (listings are posted every Friday).
Print: The first of the month 1 month prior to the issue in which you want your notice to appear.

learning, networking, and, of course, recreation! Last year more than 300 people attended this meeting, so don't miss out this year. Pre-conference workshops: AIME, CASTED, EDE, EDE2, ACLS, CARE. Target audience: Any physician providing emergency care—from rural to urban, part-time to full-time, residents to seasoned veterans, and emergency nurses and paramedics. Special guests the Hair Farmers will be featured at our Friday night reception at the newly renovated GLC. Keynote speakers: Dr Grant Innes (University of Alberta), Dr Stuart Swadron (Keck School of Medicine, USC), Dr Judith Tintinalli (UNC School of Medicine), and Sam Sullivan (CM, MLA, Vancouver-False Creek). Conference registration, information, program details, and online registration is available at http://ubccpd.ca/course/sphemerg-2016. Phone 604 875-5101, fax 604 875-5078, e-mail cpd.info@ubc.ca, web ubccpd.ca.

GP IN ONCOLOGY TRAINING
Vancouver, 12–23 Sep (Mon–Fri), and 20 Feb–3 Mar 2017 (Mon–Fri)
The BC Cancer Agency's Family Practice Oncology Network offers an 8-week General Practitioner in Oncology training program beginning with a 2-week introductory session every spring and fall at the Vancouver Centre. This program provides an opportunity for rural family physicians, with the support of their community, to strengthen their oncology skills so that they may provide enhanced care for local cancer patients and their families. Following the introductory session, participants complete a further 6 weeks of customized clinic experience at the cancer centre where their patients are referred. These can be scheduled flexibly over 6 months. Participants who complete the program are eligible for credits from the College of Family Physicians of Canada. Those who are REAP-eligible receive a stipend and expense coverage through UBC's Enhanced Skills Program. For more information or to apply, visit www.fpon.ca, or contact Jennifer Wolfe at 604 219-9579.

INFECTIOUS DISEASES DAY SYMPOSIUM
Surrey, 15 Oct (Sat)
A Step-by-Step Problem-Oriented Approach with Common Infectious Diseases Syndromes has been accredited by the College of Family Physicians of Canada for 8.0 MainPro-M1 credits. This event sponsored by Fraser Health will be held 8 a.m. to 4 p.m. in the UBC Lecture Hall, B floor of the Critical Care Tower, Surrey Memorial Hospital, 13750 96 Ave (94 Ave. and King George Hwy.). Learning objectives: case-based approach with discussion around the syndromic presentations, diagnosis, and up-to-date management tips for primary care providers in hospital and community settings. All presen-

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tations will be made available on USB keys so please bring your laptop to the meeting. Registration: http://physicians.fraserhealth.ca/Professional-Development/#Events.

MINDFULNESS IN MEDICINE
Tofino, 28 Sep–2 Oct (Wed–Sun)
Mindfulness in Medicine—Foundations of Theory and Practice is a 4-day experiential workshop approved for 16 Mainpro-C credits. The workshop's focus will be mindfulness and meditation as it relates to the unique challenges and blessings of our work as physicians. As chronic stress and its associated mental and physical health challenges continue to rise in epidemic proportions, the application of mindfulness in clinical practice settings has gained prominence both in terms of evidence-based research and in the popularity of its use. Learn about the latest clinical evidence and neuroscience on mindfulness in medicine, find out about programs offered throughout BC and Canada, and explore practical meditation tools for yourself and for your patients. Visit www.drmarksherman.ca for more information, or register at info@drmarksherman.ca.

WORKSAFEBC PHYSICIAN EDUCATION CONFERENCE
Kamloops, 22 Oct (Sat)
The 17th annual WorkSafeBC Physicians Education Conference will be held at Hotel 540 in downtown Kamloops. Physicians are invited to learn, share, and network at this WorkSafeBC-hosted conference. Attendees can expect a full-day of discussion, dialogue, and workshops relating to the role of physicians in work-related injuries, and the latest protocols in disability management. The conference agenda includes 3 plenary sessions, 12 workshops to choose from, and 2 "short snapper" sessions that feature a brief presentation followed by an opportunity for Q&A. Register before 1 Oct to receive the early-bird discount. Accreditation: Applications for Mainpro-M1 credits for the plenary sessions and Mainpro-C credits for the workshop sessions are in progress. More details will be available soon. For more information, contact Kerri Phillips at kerri.phillips@worksafebc.com or visit www.worksafebcphysicians.com.

SEMP COURSE
Vancouver, 27 Oct (Thu)
The Simulation Assisted Emergency Medicine Procedures course allows physicians to acquire, review, and practice their skills in essential life-saving emergency procedures. Before the course, students will have access to web-based learning modules to complete the self-directed learning. The hands-on portion of the course at the Centre of Excellence for Surgical Education & Innovation, Vancouver General Hospital, 3602–910 W.10 Ave., will

have experienced instructors demonstrating the procedures and supervising the students as they practise on animal and realistic plastic models. Students will have the opportunity to integrate performance of these procedures into the real-time resuscitation of a critically ill patient using the latest human patient simulator technology to create realistic scenarios. Maximum course capacity: 24 participants. Target audience: Emergency physicians and rural physicians. Accreditation: up to **15** Mainpro-M1/MOC Section-3 credits. Register at ubccpd.ca/course/SEMP-Oct27-2016. Tel 604 875-5101, e-mail cpd.info@ubc.ca.

UGEMP COURSE
Vancouver, 28 Oct (Fri), 18 Nov (Fri)
The use of bedside ultrasound by clinicians to guide invasive emergency and critical care procedures improves success and reduces complications, and is rapidly becoming established as the standard of care. The Ultrasound Guided Emergency Medicine Procedures course will be held at the Centre of Excellence for Surgical Education & Innovation, Vancouver General Hospital, 3602–910 W.10 Ave. Pre-course work includes web-based learning modules to complete the self-directed learning. Human models will allow for demonstration of human surface landmarks, and ultrasoundable task-trainers that simulate the tactile feel of human tissue will allow for the repeated practise of invasive procedures without harming the human models. Formative evaluation in the form of immediate feedback provided by the instructor will help the students to monitor their progress and guide their learning. Maximum course capacity: 24 participants. Target audience: Emergency, rural, intensive care, and family physicians, pediatricians, anesthetists, trauma physicians, residents, IMGs. Accreditation: up to 15 Mainpro-M1/MOC Section-3 credits. Register for 28 Oct at http://ubccpd.ca/course/UGEMP-Oct28-2016 and for 18 Nov at http://ubccpd.ca/course/UGEMP-Nov18-2016. Tel 604 875-5101, e-mail cpd.info@ubc.ca.

LIVE WELL WITH DIABETES
Richmond, 4–6 Nov (Thu–Sun)
Come check out the conference for health care professionals at the Radisson Hotel, our new venue in Richmond, close to the Canada Line station! Building on the success of our new 3-day format, this year's agenda includes presentations designed for family physicians, allied health professionals, podiatrists, and other health care professionals who have an interest in recent advances in diabetes. Featured topics: Diabetes and the elderly; Ambulatory glucose monitoring/CGMS; Combination therapy: Does 1 + 1 equal 3; Economics of diabetic foot complications: Importance of risk reduction; How to dis-

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cuss obesity—A family physician's perspective. A public health fair has been scheduled for Sunday, 6 Nov, at the same venue. Conference registration, information, program details, and online registration are available at www.ubccpd.ca. Tel 604 875-5101, fax 604 875-5078, e-mail cpd.info@ubc.ca.

SEA COURSES SUMMER/FALL CME CRUISES

Various destinations, Nov–Apr 2017

Travel with the CME cruise experts. Discover new destinations. Return to favorite ports. Tahiti and Marquesas (Nov), Caribbean (Dec), South America (Jan), Australia and New Zealand (Feb), Bali (Feb), Bermuda (Apr). Trips planned by physicians for physicians. Sea Courses has provided almost 300 unique CME conferences onboard cruise ships over the past 20 years. Programs are accredited for specialists and family physicians, have no pharma sponsorship, and include a complimentary enrichment program for traveling companions. All Sea Courses trips offer group pricing, special airfares, and free cruising for companions. Contact Sea Courses Cruises for more information and details of current promotions. Phone 604 684-7327, or toll free 1 800 647-7327;e-mailcruises@seacourses.com. Visit seacourses.com for a complete list of CME cruises and tours.

HAWAIIAN CME: MAUI AND/OR KAUAI

Maui, 27–29 Mar 2017 (Mon–Wed), and Kauai, 10–12 Apr 2017 (Mon–Wed)

Aloha! Please join us in the happiest American state next spring for award-winning CME in medical cognitive behavior therapy—Medical CBT: Ultra-brief techniques for real doctors. The Maui workshop (CBT for Depression/Happiness) will be held at the idyllic Sheraton Maui on Ka'anapali Beach. With 23 acres of lush Hawaiian grounds, you'll never feel crowded! Maui has been voted best island by the readers of *Condé Nast Traveler* for more than a dozen years. Attractions include 10 000 foot Hale'akala (Hawaiian for house of the sun), 14 golf courses (including some of the world's top-rated), the scenic road to Hana, the Seven Sacred Pools of Oheo, and over 500 restaurants. The Kauai workshop—CBT Tools, will be held at the spectacular Grand Hyatt on sunny Poipu Beach. The Grand Hyatt Kauai is ranked among the world's top resorts by both the *Condé Nast Traveler* and *Travel+Leisure*. Kauai is the most tranquil and pristine of the main Hawaiian Islands, with beaches fringing nearly 50% of its tropical coastline. Attractions include the world-famous Kalaulua Trail on the Napali Coast, red-rocked Waimea Canyon, 17-mile Polihale Beach (Hawaii's longest), crescent-shaped Hanalei Bay, and Hawaii's only navigable river, the Wailua. See www.cbt.ca for details about both the Maui and Kauai workshops. Warning: Our significantly discounted guestrooms for these two workshops will sell out far in advance.

SOUTH PACIFIC CRUISE

15–29 Apr 2017 (Sat–Sat)

The world's most romantic destinations, from French Polynesia to Fiji. Join us for a 13-night cruise exploring exotic Tahiti (where Captain Bligh's men mutinied to stay put), Mo'orea (Arthur Frommer's vote for "the most beautiful island on earth"), Taha'a (French Polynesia's vanilla-scented isle), Bora Bora (celebrities' exclusive hideaway), the Cook Islands (New Zealand's private paradise), the Kingdom of Tonga (proudly never colonized), and three idyllic islands of Fiji (Viti Levu, Vanua Levu, and postcard-perfect Beqa). You'll be enchanted by the South Pacific's craggy volcanic peaks, sugary beaches, warm lagoons teaming with fish, glistening black pearls, and Tamure dancing suggestive enough to make you blush. The CME provides a rock-solid foundation in medical CBT for depression, reviewing a plethora of ultra-brief office techniques to defeat depression and be happy. CBT Canada is a national winner of the CFPC's CME Program Award, and is celebrating its 20th anniversary this year. Lead instructor Greg Dubord, MD, is a University of Toronto CME Teacher of the Year. Assistant faculty includes the inimitable Fijian psychiatrist Benjamin Prasad, MD, FRCPC, from the University of Manitoba. Super early bird rates for ocean-view staterooms aboard the spectacular m/s *Paul Gauguin* start at $12 850 (includes all beverages, all taxes, all gratuities, return airfares, and companion cruises free). Book with Canada's largest cruise agency, CruiseShipCenters. See CBT Canada at www.cbt.ca or call 1 888 739-3117.

practices available

VANCOUVER—PEDIATRICS
Busy pediatric practice available. Solid referral base. Recently renovated 1000 sq. ft. office, including four exam rooms and two MD rooms. EMR in place. Conveniently located near BC Children's Hospital. Options to buy or rent commercial unit. E-mail vanpeds@outlook.com or call 778 233-6543 for more information.

WEST VAN—NURSING HOME PRACTICE AVAILABLE
Retiring physician has approximately 100 patients in two West Vancouver care facilities. Ideal for a semi-retired doctor or medical spouse with family. Rounds one morning per week and weekday telephone availability for advice. No overheads, and significant income. Contact Dr Robert Follows at follows@shaw.ca.

employment

ABBOTSFORD—LOCUMS
Full-service East Abbotsford walk-in clinic requires locum physicians for a variety of shifts including weekends and evenings. Generous split: pleasant office staff and patient population. Please contact Cindy at 604 504-7145 if you are interested in obtaining more info.

BURNABY, CLOSE TO NEW WEST—GP FOR FAMILY PRACTICE
F/T or P/T GP needed to join an established FP with an existing doctor. Split 80/20 plus negotiable start-up offer. Patient loads guaranteed if join immediately. Well staffed, MOA, parking spaces in back. Pharmacy next to clinic. Please apply by e-mail to healthmedicalservices@gmail.com or contact 604 715-6011 for more info.

BURNABY—PSYCHIATRIST
The Provincial Assessment Centre (PAC) is seeking a psychiatrist on a temporary part-time basis (approx. 1 year) for its inpatient unit: two to four sessions per week, depending on facility occupancy. The psychiatrist will work closely with a multidisciplinary team assessing and treating individuals (14 years or older) who are dually diagnosed with intellectual disability, mental health issues, and complex behaviors. For more information or to submit your resume contact Sandra Mastandrea at Sandra.Mastandrea@gov.bc.ca.

CHILLIWACK—MEDI-SPA
We are a medi-spa in Chilliwack that is currently expanding and looking to hire a GP or naturopath. The position involves administering Botox Cosmetic and dermal fillers. Ideally, the candidate would have experience in the field but we are also willing to train and help with the costs of education. The position is flexible regarding days and hours worked, so it can be worked around another position. Approximately 12–18 hours per week. Please forward resume and cover letter to terri@beautyrenewed.ca (www.beautyrenewed.ca).

DELTA—FP, FT POSITIONS
Alongside You is expanding services to their clients by opening a family practice clinic to complement their current integrated health clinic in Ladner, BC. As a GP joining this team, you would provide medical care within their offices, complemented with reciprocal referrals with their multidisciplinary team. An interest in mental health and addictions medicine would be an asset. The offices are modern, bright, and spacious with well-trained MOA and office manager, and a modern EMR that is easy to use. Ample patients to support a thriving GP practice. Flexible hours, competitive and attractive split, multiple FT positions available. Contact Andrew at 604 283-7827 or andrew@alongsideyou.ca.

KAMLOOPS—HOSPITALISTS
Royal Inland Hospital, a 246-bed tertiary hospital and referral centre, is seeking permanent full-time physicians to join our collegial hospitalist service. You will provide general medical care of hospitalized adult patients and co-management of surgical and psychiatric patients. The hospitalist service is supported by a complement of specialty services including anesthesia, general internal medicine, general surgery, orthopedics, psychiatry, radiology, and urology. Opportunity to teach. Income of $244 200 supported through a service contract with on-call stipend and no overhead. For more information e-mail physicianrecruitment@interiorhealth.ca or visit www.betterhere.ca.

KELOWNA—HOSPITALISTS
Kelowna General Hospital, a tertiary hospital and referral centre with 400 beds, is seeking permanent full-time and part-time physicians to join our progressive hospitalist service. You will provide general medical care of hospitalized adult patients, and co-management of surgical and psychiatric patients. The hospitalist service is supported by a complement of specialty services including anesthesia, general internal medicine, general surgery, orthopedics, psychiatry, radiology, urology, and oncology. Income of $244 200 supported through a service contract with on-call stipend and no overhead costs. For more information e-mail physicianrecruitment@interiorhealth.ca or visit www.betterhere.ca.

LANGLEY—PT/FT FP
Enjoying an excellent reputation, Glover Medical Centre (GMC) offers a great opportunity to practise in a multidisciplinary primary care environment offering a variety of services: family practice, walk-in, urgent care, occupational medicine, clinical research. Spacious, fully equipped (suture room, slit lamp, plaster room), and recently renovated. Rica Pizzinato, Office Manager: rica@glovermedical.com.

LILLOOET—FP
Five-physician, unopposed fee-for-service practice seeks sixth family physician with ER skills. Clinic group focus is on balancing work and lifestyle. Easy access to Lower Mainland, Whistler, and Interior of the province. Call is currently 1 in 5. Regular schedule includes 1 week off every fifth week. Full rural physician recruitment and retention benefit eligibility, including 38 days of rural locum coverage for holidays. World-class wilderness at your doorstep for skiing, hiking, fishing, white-water kayaking, and mountain biking. Full-service rural hospital with GP surgeon and anesthetist on staff. For more information e-mail physician recruitment@interiorhealth.ca or visit www.betterhere.ca.

MERRITT—FP
Rolling hills, sparkling lakes, and over 2030 hours of sunshine every year make Merritt a haven for four-season outdoor recreation. We have a need for family physicians in their choice of clinic. Nicola Valley Hospital and Health Centre is a 24-hour level-1 community hospital with a 24-hour emergency room. Royal Inland Hospital in Kamloops is a tertiary-level hospital located only 86 km away. Remuneration is fee-for-service ($250 000 to $450 000-plus per year), rural retention incentives and on-call availability payment. For more information e-mail physicianrecruitment@interiorhealth.ca or view online at www.betterhere.ca.

N VANCOUVER—FP LOCUM
Physician required for the busiest clinic/family practice on the North Shore! Our MOAs are known to be the best, helping your day run smoothly. Lucrative 6-hour shifts and no headaches! For more information, or to book shifts online, please contact Kim Graffi at kimgraffi@hotmail.com or by phone at 604 987-0918.

NANAIMO—GP
General practitioner required for locum or permanent positions. The Caledonian Clinic is located in Nanaimo on beautiful Vancouver Island. Well-established, very busy clinic with 26 general practitioners and 2 specialists. Two locations in Nanaimo; after-hours walk-in clinic in the evening and on weekends. Computerized medical records, lab, and pharmacy on site. Contact Ammy Pitt at 250 390-5228 or e-mail ammy.pitt@caledonianclinic.ca. Visit our website at www.caledonianclinic.ca.

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Combating the opioid crisis with education

Since the mid 1990's, the use of prescription opioids has become increasingly problematic. Society now finds itself in the midst of an opioid crisis with extremely serious, negative consequences including dependence, addiction, overdosage, death, and diversion of these drugs to the community.

Since 2008, WorkSafeBC has taken a number of steps to help ensure attending physicians are aware of and follow evidence-based principles when prescribing opioids for injured workers. WorkSafeBC has also supported other treatments for chronic non-cancer pain, including cognitive behavioural therapy (CBT), exercise, yoga, etc.

WorkSafeBC plans to further this work by hiring a medical outreach educator (on contract). This person will be charged with bringing together diverse groups of professionals and coordinating the effort to create and implement a practical educational program for physicians and others that will focus on the treatment of chronic non-cancer pain — a program that will build knowledge and change attitudes. The College of Physicians and Surgeons of B.C., the College

of Pharmacists of B.C., and other relevant associations and groups, from the Provincial Health Ministry and Doctors of B.C., to the University of British Columbia, will be involved in this effort.

The work is ideally suited to someone who has experience in addiction medicine and implementing change in health care. He or she will also need to have strong interpersonal, communication, and problem-solving skills.

For more information contact Dr. Peter Rothfels, WorkSafeBC's Director of Clinical Services and Chief Medical Officer (peter.rothfels@worksafebc.com).

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NEW WEST—FAMILY PHYSICIAN
New Westminster: Columbia Square Medical Clinic is looking for a family physician for a full- or part-time position. Partnership and options to buy are available. Flexible hours, competitive split. The clinic is newly renovated with bright rooms, Oscar EMR, excellent friendly and efficient staff, 20 minutes from downtown Vancouver. We have 800 families waiting for a family doctor who wants to establish a permanent practice or work part-time. Considering a change of location or practice style? Call Irina at 778 886-6511 or e-mail irinapaynemd@gmail.com.

NORTH VAN—FAMILY PHYSICIANS WELCOME
Family practice/walk-in seeking F/T or P/T physicians. Spacious, Oscar EMR, Wi-Fi. Located near SeaBus. Convenient to downtown Vancouver. Offering highest splits on North Shore (up to 72.5%). No OB or ED mandatory. Flexible hours. Great staff. Contact Francis: e-mail fhvala@gmail.com.

POWELL RIVER—PERMANENT FPs & LOCUMs
Powell River is a rural community of 20 000 people on the Sunshine Coast of British Columbia, a 25-minute flight from Vancouver. It's known for its waterfront location, outdoor beauty, urban culture, and international music festivals. Supported by a 33-bed general hospital, the close-knit medical community consists of 26 general practitioners, 4 ER and anesthesia physicians, 2 NPs, and 7 specialists. We are looking for permanent general practitioners and locums. Please visit divisionsbc.ca/powell river/opportunities for details.

RICHMOND—FP
Opportunity to practise in a busy family practice in Richmond, BC. Great location. Excellent staff. Please call Lesily at 604 270-1998 or e-mail lesily@shaw.ca.

RICHMOND—FP & LOCUMs
Opportunities for physicians looking to do walk-in shifts, build a practice, or relocate in our busy modern clinic. EMR OSCAR. Great location next to a 24-hr Shoppers Drug Mart. No hospital work, no call, 70/30 split—walk-in shifts at $100 per hour minimum—and bonus available. Contact us at healthvuemedical@gmail.com, 604 270-9833/604 285-9888.

SURREY/DELTA/ABBOTSFORD—GPs/SPECIALISTS
Considering a change of practice style or location? Or selling your practice? Group of seven locations has opportunities for family, walk-in, or specialists. Full-time, part-time, or locum doctors guaranteed to be busy. We provide administrative support. Paul Foster, 604 572-4558 or pfoster@denninghealth.ca.

SURREY—LOCUM/ASSOC
Full- or part-time locum or associate needed. Clinic well staffed; busy, diverse patient panel. Hours flexible from Monday to Saturday. Split is 25/75. Locum needed from 8–19 Aug, 21 Nov–7 Dec. Staff friendly and experienced. Wolf EMR in office (training available). Please call Dr Pawan K. Ram at 778 998-9445 or e-mail drpramcic@gmail.com.

THROUGHOUT BC—CORRECTIONS MEDICINE
Curious about prison medicine? Interested in a blend of general medicine, psychiatry, addictions, infectious diseases, HCV, and HIV? Opportunities exist in centres throughout BC—Prince George, Interior, Lower Mainland, Vancouver Island. Mostly part-time. Fee-for-service. No overhead. EMR. No call. Full nursing support. Shirley.halliday@gov.bc.ca.

VANCOUVER/RICHMOND—FP/SPECIALIST
We welcome all physicians, from new graduates to semiretired, either part-time or full-time. Walk-in or full-service family medicine and all specialties. Excellent split at the busy South Vancouver and Richmond Superstore medical clinics. Efficient and customizable Oscar EMR. Well-organized clinics. Please contact Lisa at medicalclinicbc@gmail.com.

VANCOUVER—FP
Mainland Medical Clinic is seeking a family doctor for our modern, multidisciplinary street-level clinic in Yaletown, downtown Vancouver. We have been operating for over 13 years in a comfortable setting shared with a chiropractor, massage therapists, and a nutritionist to complement our three family doctors. Ideally seeking someone with an existing practice—perhaps relocating or cutting back. We serve a broad spectrum of patients, both walk-ins and appointments. Excellent revenue split. The clinic offers a pleasant work environment in an upbeat, fun neighborhood. Contact Dr Brian Montgomery at brian@mainlandclinic.com or 604 240-1462, or just drop by.

VANCOUVER—FT/PT DERM
Dermatologist wanted to join busy Aesthetic Medical Clinic in Vancouver. Full- or part-time. Please reply by e-mail to kt.crawford03@gmail.com.

VANCOUVER—LOCUM
Busy walk-in shifts in Kitsilano at Khatsahlano Medical Clinic, three-time winner of Georgia Straight reader's poll for Best Independent Medical Clinic in Vancouver. Split is 65%; 70% on evenings/weekends. Contact Dr Chris Watt at drchriswatt@gmail.com.

VANCOUVER—MEDICAL DIRECTOR/INJECTOR
Vancouver Medical Esthetics Clinic seeking a medical director/injector. Well-established multidisciplinary clinic with a great team of professionals. Please submit CV for review to sarahinylc@gmail.com.

VANCOUVER—PAIN PHYSICIAN
St Paul's Hospital is seeking a physician with a biopsychosocial focus and chronic pain/addiction experience to fill a half-time flexible permanent position at its Complex Pain Centre located at the St Paul's Hospital site. Starting September or October 2016. For more information please contact Jennifer Chow, executive assistant to Dr Bill MacEwan, head, Department of Psychiatry. E-mail jchow3@providencehealth.bc.ca.

VANCOUVER—PRIVATE BILLING
Associate/locum wanted for lucrative non-MSP practice. Initially 1–2 days per week with a view to taking over eventually. Recent graduate with a business inclination and strong computer skills would be ideal. Reply by e-mail to dr.ciszak@immigrationmedical.ca. No phone calls please.

VERNON—AESTHETICS/VEIN/LASER
Outstanding opportunity to join a well-established and thriving GP derm/aesthetics/vein/laser practice in one of the best places to live in Canada. We are looking for an associate/equity partner(s). The office has all the latest technology and an excellent, congenial staff. Training provided but a special interest in dermatology a definite asset. The Okanagan has some of the best weather, lakes, wineries, golf courses, ski hills, and overall lifestyle anywhere in Canada, if not the world. Contact Dr William Sanders: 250 558-9606, w.sanders@shaw.ca.

VICTORIA—GP/WALK-IN
Shifts available at three beautiful, busy clinics: Burnside (www.burnsideclinic.ca), Tillicum (www.tillicummedicalclinic.ca), and Uptown (www.uptownmedicalclinic.ca). Regular and occasional walk-in shifts available. FT/PT GP post also available. Contact drianbridger@gmail.com.

VICTORIA—LOCUM OPPORTUNITY
Curious about practising in beautiful Victoria, BC? If you are wondering if practising family medicine in Victoria could be your future, here is an ideal opportunity to try it out. Busy family practice/walk-in clinic looking for someone to provide locum coverage for a 3- to 6-month period starting March 2017. Ideal for husband-wife team. The clinic currently runs Monday to Friday, fully functions using EMR, and is supported by superb long-time staff. This opportunity could develop into a long-term position should there be an interest. No obstetrics or hospital privileges are necessary. Please send inquiries to pcrawford@omniwest.com.

VICTORIA—SHARED PRACTICE
Ideal opportunity for Mandarin/Cantonese–speaking physician to join a turnkey, EMR

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practice with a view to building the practice. Escape the high-cost accommodation in Vancouver and relocate to Victoria, known for its breathtaking natural beauty and enviable quality of life. Combine a rewarding career with a satisfying lifestyle. E-mail chewmoa@shaw.ca.

VICTORIA—WALK-IN
Walk-in clinic shifts available in the heart of lovely Cook St. Village in Victoria, steps from the ocean, Beacon Hill Park, and Starbucks. For more information contact Dr Chris Watt at watt1@telus.net.

WEST VAN—FAMILY PHYSICIANS
West Vancouver, FP/walk-in. Continuum Medical Care is a large multidisciplinary clinic located in the heart of West Vancouver. We are again expanding and are looking for primary care physicians to join our team of 12 FPs, 7 specialists, and a variety of allied health professionals. With over 17 000 patients, we are seeking primary care physicians to work in our recently opened walk-in clinic and in our newly renovated main clinic, offering full-service family practice care. Specialty training or diploma in sport medicine, geriatrics, lifestyle medicine, concierge medicine, or executive health would be an asset. Please contact Dr Bryce Kelpin at 604 928-8187, or e-mail bkelpin@telus.net.

WILLIAMS LAKE—FP EMERGENCY
Seeking CCFP-EM or CCFP with ER experience. Cariboo Memorial Hospital services a population of approximately 26 000 with 20 000 visits to the ER annually. ER is staffed by six full-time ER physicians and a variety of part-time ER physicians (staffed 24/7). We have a 28-bed hospital with 3-bed ICU. Excellent collegial specialist support including general surgery, OB/GYN, pediatrics, internal med, radiology, anesthesia, and psychiatry. Further specialist support available at our referral centre in Kamloops. Williams Lake is known for its outdoor opportunities and full range of amenities (including local college and airport). Contact 1 877 522-9722 or physician-recruitment@interiorhealth.ca.

medical office space

ABBOTSFORD—OFFICE SPACE
Fully furnished, ready-to-go medical office available for lease in heart of Abbotsford. Rent-free for 6 months! Clinic includes four large exam rooms, reception area, large waiting room with TV, two washrooms, large private office, on-site free parking. Located in a professional building at a busy intersection with lots of walk-in traffic. Great opportunity for someone looking for an existing space with the flexibility to design their own practice and hours of operation. Please contact Frank Dykstra at 604 835-6300 or fdykstra@hotmail.com.

KELOWNA—OFFICE: PRIME AREA, GROUND FLOOR
3295 Lakeshore Rd. Professional bldg. Bright, well-lit with large windows; 710 sq. ft.; four treatment rooms, two plumbed. Ground floor in lovely part of Kelowna just off the lake. Private entrance to outdoors. Bathroom. Small waiting area. Wheelchair access. Option to share reception. Modern finish with tile, hardwood, and rounded walls. E-mail duane@veinskin.com or call 250 469-1416.

N DELTA & SURREY—1700 SQ. FT. MED SPACE (7 ROOMS)
Located at 84th Ave. and 120th St. Renovated space available from recently departed, high-volume walk-in clinic (1700 sq. ft., seven rooms). Six examination rooms, one treatment room, office, kitchen, three bathrooms, two large reception areas (one could be converted to make two more rooms), and large waiting area. Ample parking. Compensation for breaking your lease available. Contact harjsamra@rghs.ca.

RICHMOND—MED OFFICE SPACE
New modern EMR clinic in Steveston Village looking for physicians to join our team. Opportunities to start a practice or relocate existing practice without worrying about administra-

tive headaches. We offer base 70/30 split and higher for complex care and forms. Visit www.HealthVue.ca or contact healthvuemedical@gmail.com, 604 285-9888.

SURREY/DELTA—MED OFFICE SPACE
Newly renovated Specialist Medical Clinic: private offices with either one or two exam rooms. Full-time, part-time, or satellite office. Flexible terms. Ideal for specialists. New furniture and medical equipment. Fully EMR. Large waiting room. Near Scott Rd. and Nordel Way. Contact a.kanani@ubc.ca.

VAN (VGH AREA)—MED OFFICE SUBLEASE
Office space for psychiatrists, psychologists, or any other specialist MD. No secretary or other additional overhead expenses. Top floor. Great view. Two offices for sublease. One office is bigger and has a sink and space for an examination table. E-mail alevin@drlevin.ca.

VANCOUVER—CLINIC SPACE FOR LEASE
Fully furnished, ready-to-go ground floor medical office space for lease on Main and 22nd. Clinic includes four exam rooms, two private offices, two washrooms, one staff room, large waiting room and reception area, and on-site free parking. Available 1 December 2016. Contact Carlo at 604 763-1063 or cdonetti@sutton.com.

VANCOUVER—WEST BROADWAY
Fully furnished space for one or multiple doctors. Space can be used part-time or full-time with short- or long-term arrangement possible. Use some or all of the large space. MOA provided if needed. Extraordinary views. Concrete professional building with elevators, underground parking, and three restaurants. Available immediately. Please call Neil at 604 644-5775.

WEST VAN—MED OFFICE SPACE
Medical office space available for part-time use on weekdays and weekends. Two rooms. Great view, lots of natural light, ideal location in Ambleside. Located in medical building with pharmacy, lab, X-ray, etc. Please e-mail poorvijju2004@yahoo.co.uk or call 778 919-0585 or 604 356-3282.

WHISTLER—VISITING SPECIALISTS
New office space for rent for visiting specialists in Whistler. Day rate, reception and booking, wheelchair accessible, free parking, available now. For more information please call 604 905-1500 or e-mail katduval53@gmail.com.

miscellaneous

CANADA-WIDE—E-TRANSCRIPTION SERVICES
E-Transcription Services allows hospitals, clinics, and specialists to outsource a critical business process, reduce costs, and improve the quality of medical documentation. By outsourcing transcription work you will be able to increase the focus on core business activities and patient care. Our goal is to exceed your expectations. Call for free trial 1 877 887-3186. www.etranscription.ca.

CANADA-WIDE—MED TRANSCRIPTION
Medical transcription specialists since 2002, Canada wide. Excellent quality and turnaround. All specialties, family practice, and IME reports. Telephone or digital recorder. Fully confidential, PIPEDA compliant. Dictation tips at www.2ascribe.com/tips. Contact us at www.2ascribe.com, info@2ascribe.com, or toll free at 1 866 503-4003.

FREE MEDICAL RECORD STORAGE
Retiring, moving, or closing your family practice? RSRS is Canada's #1 and only physician-managed paper and EMR medical records storage company. Since 1997. No hidden costs. Call for your free practice closure package: everything you need to plan your practice closure. Phone 1 866 348-8308 (ext. 2), e-mail info@rsrs.com, or visit www.RSRS.com.

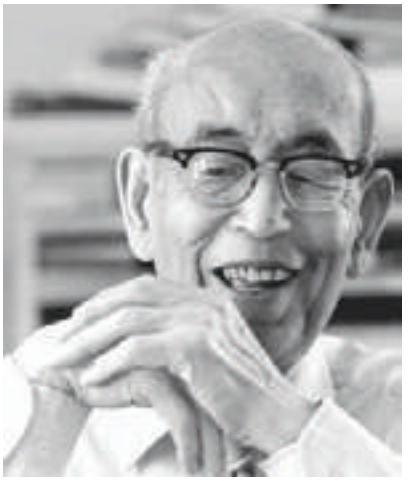
PATIENT RECORD STORAGE—FREE
Retiring, moving, or closing your family or general practice, physician's estate? DOCUdavit Medical Solutions provides free storage for your active paper or electronic patient records with no hidden costs, including a patient mailing and doctor's web page. Contact Sid Soil at DOCUdavit Solutions today at 1 888 781-9083, ext. 105 or e-mail ssoil@docudavit.com. We also provide great rates for closing specialists.

VANCOUVER—TAX & ACCOUNTING SVCS
Rod McNeil, CPA, CGA: Tax, accounting, and business solutions for medical and health professionals (corporate and personal). Specializing in health professionals for the past 11 years, and the tax and financial issues facing them at various career and professional stages. The tax area is complex and practitioners are often not aware of solutions available to them and which avenues to take. My goal is to help you navigate and keep more of what you earn by minimizing overall tax burdens where possible, while at the same time providing you with personalized service. Website: www.rwmcga.com, e-mail: rodney@rwmcga.com, phone: 778 552-0229.

Dr Masajiro Miyazaki—enemy alien?

"We interrupt this program to bring you a special news bulletin. The Japanese have attacked Pearl Harbor, Hawaii, by air . . ."

—Radio announcer



Dr Masajiro Miyazaki

Sterling Haynes, MD

The music at the outdoor skating rink in Edmonton, Alberta, resumed playing "I've Got a Lovely Bunch of Coconuts" as many skaters headed inside. It was Sunday afternoon, 7 December 1941, and we all changed our skates and headed home to hear about the tragedy in detail.

With this news the smoldering resentment against the Japanese was brought to a boiling point in Canada. Racism turned to violence in Vancouver and increased when 2000 Canadian soldiers who were defending Hong Kong were killed or captured when the Japanese took the island on 25 December 1941. After these events, violence and racism ran rampant in British Columbia. Even though there were army and RCMP officials who spoke out in support of Canadian Japanese men, women, and children—insisting that they were no threat to Canada—the CPR fired all Japanese workers and the Royal Canadian Navy confiscated all Japanese fishing vessels. All Japanese schools and newspapers were closed. Ian Mackenzie, a federal cabinet minister under Prime Minister Mackenzie King, shouted his slogan, "No Japs from the Rockies to the seas," and the federal government declared a protected area (160 km wide) along the Pacific Coast. Racial persecution included deportation of all Japanese people, naturalized or not, to prisoner-of-war camps in the BC Interior, and a dusk-to-dawn curfew was imposed on these Japanese enemy aliens.

Initially the enemy aliens were to pack one suitcase and be transported to a detention centre in Hastings Park—the Pacific National Exhibition in Vancouver. For a few months thousands were confined to horse and cattle stalls in the Hastings Park barns. In the spring they were relocated by train to shantytowns in Kaslo, New Denver, Blue River, Greenwood, Lillooet, Bridge River, and elsewhere.

One practising medical man from Vancouver, Dr Masajiro Miyazaki, and his family were imprisoned and sent to the Taylor Field prisoner-of-war camp in Bridge River. Here is the story of this dedicated Canadian and compassionate doctor.

The early years

Dr Masajiro Miyazaki was born in Japan in 1899 and immigrated to Canada from Yokohama. Masajiro left his mother and sailed on the *Empress of India* to arrive in Vancouver on 24 June 1913. His Canadian Japanese father met him at the dock and arranged for his room and board to be paid for 6 months in Vancouver. He was taught English through the Catholic Church for a few months and later enrolled in Lord Strathcona Elementary School, from which he graduated at the top of his class. He then attended Duke of Connaught High School in New Westminster. In his teens he worked as a gardener and dishwasher in Vancouver's Little Tokyo.

Masajiro went on to study at the University of British Columbia and was active in student politics. In 1922 he participated in the Great Trek, where students marched through downtown Vancouver to the then-unfinished campus at Point Grey and subsequently managed to sway politicians to resume work on the new campus with great public support. In 1925 Masajiro received his bachelor's degree in arts and science from UBC and then applied to medical school at Queens University but was not accept-

Dr Haynes is a retired general practitioner living in West Kelowna. He was a country and urban doctor for almost 40 years in BC and Alabama.

This article has been peer reviewed.

ed. At that time universities refused admission to many Asian people. All Japanese individuals were also refused internships, without which you could not receive a licence to practise medicine. Around the same time Masajiro applied for naturalization papers, though he did not become a Canadian citizen until after the Second World War when his papers finally resurfaced after having been declared lost.

The start of a storied career

Masajiro was determined to become a doctor, so he looked to schools south of the border. American medical schools required a $1000 bond to be posted by all Japanese students, and the Kirksville College of Osteopathic Medicine in Missouri agreed to pay his bond. Dr Miyazaki graduated with a DO (doctor of osteopathy), having supported himself through school by working as a waiter in a fraternity house.

On 15 May 1930 Dr Miyazaki was licensed by the College of Physicians and Surgeons of BC. He opened an office in Vancouver and practised there until 7 December 1941, the day of the attack on Pearl Harbor.

In addition to being an active general practitioner in the 1930s, Dr Miyazaki made time for many other things. In 1934 he married Sumiko Shimizu, a graduate of the University of Washington, in an arranged marriage. From 1934 to 1941 he served as a councillor for the Canadian Japanese Association and was active in UBC's Japanese Alumni Association. In 1937 he even started a weekly Japanese newspaper with Tommy Shoyama, who later became a financial guru, an economist, and a deputy minister of finance with the federal government of the time.

Following the attack on Pearl Harbor, all resident aliens in Canada were reclassified as enemy aliens and Masajiro and his wife were shipped to a prisoner-of-war camp in the Bridge River/Lillooet area. There they learned to endure racism and persecution during the war years and after.

The war years and beyond

It is believed that from the spring of 1942 to 1944 Dr Miyazaki looked after the Japanese prisoners of war in the camp. When the local Lillooet physician, Dr Patterson, died suddenly in 1944, the area lost its coroner and only doctor. The RCMP, town council, and the securities commission realized they needed to find a replacement quickly. With no other candidates presenting themselves, they approached Dr Miyazaki and asked the good doctor to move into town from the camp. He and his wife were soon reclassified from enemy aliens to resident aliens.

Dr Miyazaki modified a railroad speeder, or track-maintenance car, into an enclosed ambulance that could carry a stretcher and equipment, and provide seats for a driver and the doctor.

When Dr Miyazaki moved into Lillooet he was allowed to purchase a new Plymouth and given wartime gasoline ration tickets. In exchange he looked after the citizens of Lillooet, Bridge River, Bralorne, all the people living along the Pacific Great Eastern (PGE) Railway, and all the whistle stops in between, along with attending to all the police and coroner's work. That was humble pie for the police, security commission, and local politicians.

Soon after the move Dr Miyazaki realized that he would need chains for his car's tires in order to be able to travel on the snowy mountain passes. As an ingenious solution he developed studded tires from welded steel bars and horseshoe nails, which allowed him to make house calls and take the sick to the small Fountain Red Cross hospital or transport them to the hospital in Lytton. He later modified a railroad speeder, or track-maintenance car, into an enclosed ambulance that could carry a stretcher and equipment, and provide seats for a driver and the doctor. Dr Miyazaki and other doctors used this Pacific Great Eastern Railway speeder ambulance for many years when the country roads were blocked by avalanches, mud slides, or floods.

In 1946 Dr Miyazaki decided that the town needed a road ambulance, and he persuaded the town council to purchase one after he offered to provide the $200 down payment. The mayor asked the doctor if the town might use his personal garage to store the ambulance and if he would be the designated ambulance driver on some nights and weekends. Dr Miyazaki did it all happily, and was appointed chair of the town's ambulance service until 1967.

On one occasion Dr Miyazaki drove to the Niskip Indian Reserve in the middle of winter to see a young woman who was hemorrhaging from her vagina. With his studded tires he managed to climb the terrifying Texas Creek hill to attend to the woman. He kept a sterile kit of dilators and curettes in his black bag and was able to stop the bleeding, saving her life by performing a D&C (dilation and curettage) in her bedroom.

On another occasion he was called to see a boy who had been run over by a car while sledding. The vehicle's undercarriage had torn the child's

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scalp off. Dr Miyazaki drove the boy many miles to the Pavilion General Store, and with the use of local anesthetic, his special Coleman lamp, and his surgical instruments he managed to reattach the boy's scalp using the store's countertop as an operating table.

There are many more examples of Dr Miyazaki's dedication to his work. When called to a passenger train 160 km from Lillooet where a young woman was bleeding profusely in a railroad passenger car, he met the train on his ambulance speeder, climbed aboard the train, and performed a D&C for an incomplete abortion. To allow the woman to recover, he and the patient took the train back to Lillooet and the good doctor admitted her to a bedroom in his house. His daughter, Mary, gave up her bedroom to the ailing woman for the night. By the next day the patient had recovered and Dr Miyazaki drove her back to the PGE station in the ambulance so she could continue her journey.

In 1945, when penicillin became available, Dr Miyazaki drove 100 km over Pavilion Mountain to the community of Jesmond in the Cariboo to see a blind, ill, elderly woman with pneumonia. The doctor gave the woman an intramuscular long-acting penicillin injection and what penicillin tablets he had in his bag. The patient recovered at home within a few days.

Dr Miyazaki was active in the community despite facing racial discrimination from a few of the residents and some of the doctors. At one point his name was even removed from the list of attending staff at the Lillooet Hospital. It was reinstated in 1954.

Dr Miyazaki remained busy performing home deliveries on the many Indian reserves, pulling abscessed teeth, and running the VD clinic. He also had a variety of jobs in the community besides running the ambulance service. He offered a daily meteorological service, his embalming service was very busy during the heat of summer, and he was the coroner and police surgeon for the RCMP. He was a talented photographer and often took pictures to illustrate a bad accident or murder scene. He even looked after many of the community's small pets.

Dr Miyazaki's house in Lillooet. Today the historic house belongs to the District of Lillooet and is open to the public to showcase Dr Miyazaki's library and medical equipment.

The doctor helped organize the first stampede in the area in 1945 and was a judge in the first Indian baby photo contest. In 1950 he became the first elected Japanese Canadian alderman in Canada, serving for 5 years. He was a leader in the BPO Elks of Canada and was elected charter life member in 1970 for his dedication and his work as chaplain. He was active with his son in the Boy Scouts of Canada and organized many Scout jamborees.

In 1970 Dr Miyazaki was elected Freeman of the village but was sent to Kamloops soon after in renal failure and remained there on renal dialysis. He was dialyzed 188 times, and after 2 years he returned to his beloved Lillooet. In 1973 he was elected president of the District Historical Society. That same year he wrote his biography, *My Sixty Years in Canada*—a fascinating read.

Dr Miyazaki and I had a few telephone conversations about mutual patients when he was practising in Lillooet and I was practising in Williams Lake in the 1960s. Dr Miyazaki was a dedicated doctor who seldom took a day off, knew all of his patients, and was compassionate and concerned about all of them.

In 1977 Dr Miyazaki received the Order of Canada for his work in Lillooet. He shared accolades with Margaret (Ma) Murray, editor of the *Bridge River-Lillooet News*, when they received their medals in Ottawa.

The good doctor died in 1984 and willed his house to the District of Lillooet. Today this historic house is run by local volunteers and is open to the public to showcase Dr Miyazaki's library and medical equipment.

The doctor was innovative, compassionate, and dedicated—he was a good guy. I know that Ma Murray would echo my words with "and that's for damn sure." BCMJ

A note on sources

Information in this essay came from Dr Miyazaki's self-published book, *My Sixty Years in Canada*, and phone conversations between Dr Haynes and Dr Miyazaki.

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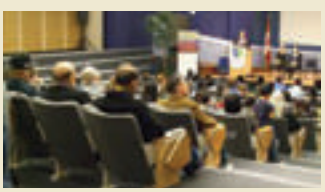

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