BC MEDICAL JOURNAL
60 YEARS OF PUBLISHING

BCMJ
BC Medical Journal

July/August 2018; 60:6
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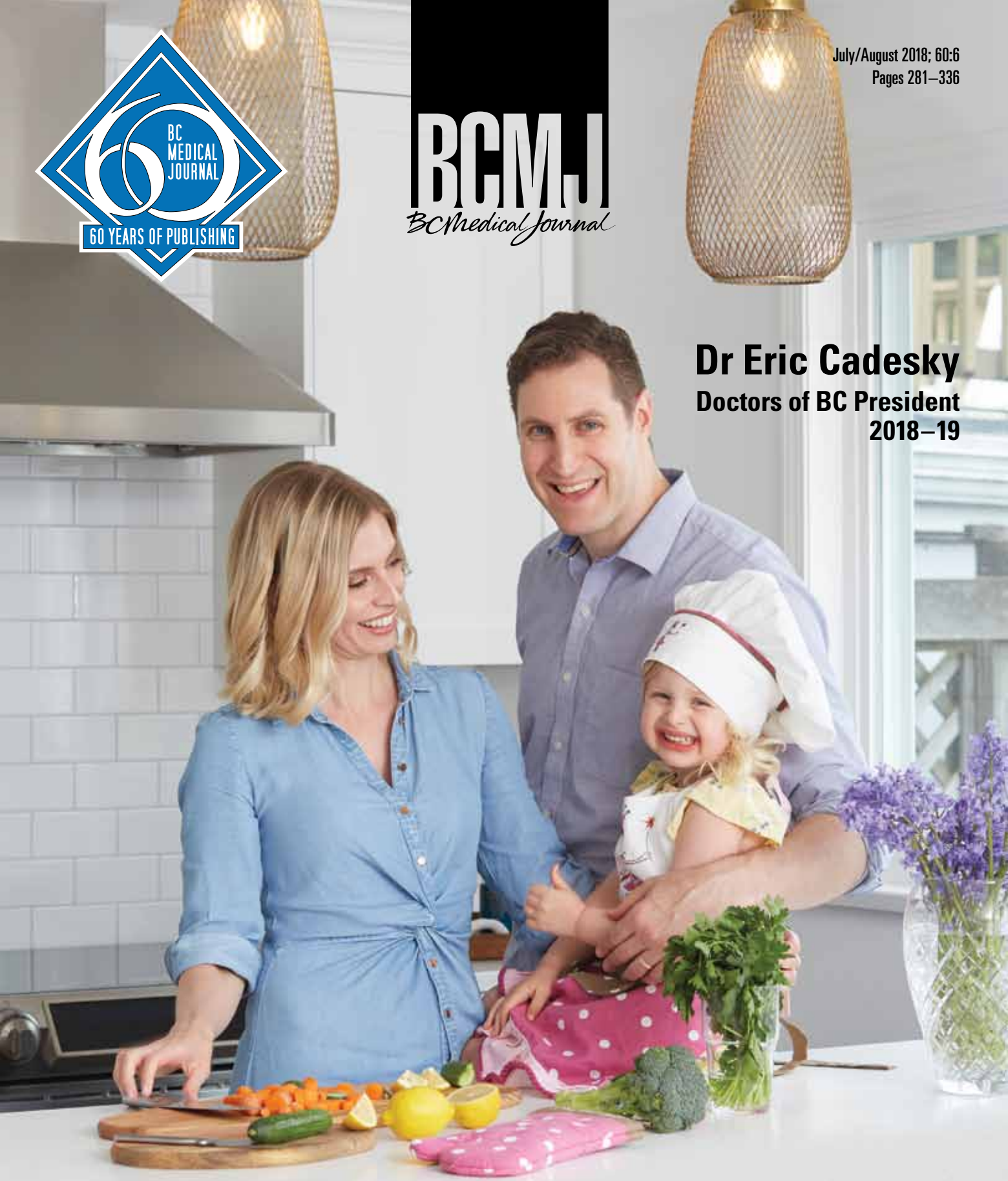

Dr Eric Cadesky

Doctors of BC President 2018–19

ALSO IN THIS ISSUE

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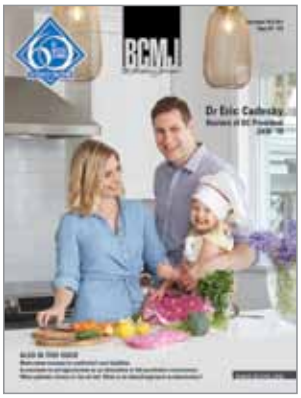

ON THE COVER

Dr Eric Cadesky at home with his family in Vancouver. Our interview with Doctors of BC's new president begins on page 294.

Clinical Articles

The *BCMJ* is published by Doctors of BC. The journal provides peer-reviewed clinical and review articles written primarily by BC physicians, for BC physicians, along with debate on medicine and medical politics in editorials, letters, and essays; BC medical news; career and CME listings; physician profiles; and regular columns.

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BCMJ 60th anniversary: Diamonds are Forever

I have to admit, I often get mistaken for Daniel Craig, particularly at the beach.[1] Sometimes I even fake an English accent and answer the phone, "Bond, James Bond." All of this fits perfectly with the *BCMJ*'s[2] upcoming Diamonds are Forever celebration. We are having a party in honor of our 60th year of publishing and you are all invited. Since diamonds represent this sixth-decade milestone we stole the title from a movie featuring the secret intelligence agency's (MI6) favorite double-0 agent.

The soirée will occur on Thursday, 9 August at Doctors of BC's office building. Appetizers and refreshments will be served and 007-themed dress is encouraged but not required. Doctors of BC members may RSVP at http://evite.me/jANCkwTMc2.

Sixty years is a milestone we can all be proud of.[3] The *BCMJ* remains a valuable publication written by the physicians of BC for the physicians of BC. The journal's focus on British Columbian research and opinions is unique in the world of medical literature and makes it a standalone resource for our province's physicians. This upcoming get-together is an opportunity to network and interact with the journal's Editorial Board and staff. Past and current contributors will also be well represented. You'll also get a glimpse into the journal's seamless internal operations. Please use your secret agent skills to watch for spies from the *New England Journal of Medicine* and the *Lancet* as they are forever trying to infiltrate and copy our inner workings.

The journal's focus on British Columbian research and opinions is unique in the world of medical literature and makes it a standalone resource for our province's physicians.

I hope you make the effort to come as I will even give you a ride in my Aston Martin, provided free of charge by Doctors of BC,[4] but be careful about which buttons you push. Dr Robert Vroom recently hit the ejector switch and ended up on the Sunshine Coast. Please search me out and say hello. I will be the dashing tuxedoed man at the bar ordering my martini shaken, not stirred.

—DRR

Notes

1. This has never happened.
2. I took some flack after my editorial about acronyms by using this one, but *BCMJ* is recognized worldwide and is also on the cover.
3. As an aside, the Bond movie franchise is only 50 years old.
4. Also completely made up.

I am a GP, not a GPS

In a recent proclamation of Family Doctor Day, the BC government states that family physicians lead the delivery of accessible health care, strengthen the capacity and overall quality of the health care system, and improve the overall health of the population (http://bccfp.bc.ca/wp-content/uploads/2018/04/Family-Doctor-Day-May-19-2019_Optimized.pdf).

In another breath, the BC government's lawyers (in the ongoing constitutional challenge launched by the Cambie Surgery Centre, et al., against the BC Ministry of Health, et al.) have stated that "If patients are waiting too long for treatment and suffering harm as a result, it's mostly because doctors aren't making the right decisions." According to court transcripts, the lawyers representing the BC government went on to say that "Patients shouldn't experience unnecessary or unreasonable pain or suffering if treating physicians exercise their professional judgement appropriately. Doctors are supposed to assess, treat, and prioritize patients according to their medical conditions; if patients suffered, it was because of decisions made by, and actions taken or not taken by, their treating physicians."

When I signed up to be a family doctor, I thought that I would be a diagnostician, healer, and confidante. I did not expect to be a navigation system for my patients. I am a GP, not a GPS. I did not expect that one of our office staff would be tasked solely with dealing with our patients' referrals for appointments with specialists and tests such as MRI scans. This staff member spends hours on the phone and fax every day, trying to get patients the soonest possible appointments with specialists or diagnostic facilities. Not infrequently, I or one of my colleagues has to make phone calls to a specialist to plead for an earlier appointment. For many of these appointments, patients are waiting months to years.

Theoretically, I could refer the patient to the specialist with the shortest wait list, and I often do, but sometimes that specialist is someone I would not feel comfortable sending a family member to. I prefer to treat my patients as I would want to be treated. Thankfully, the majority of specialists provide excellent care, but as a result, they have long wait lists.

When I signed up to be a family doctor, I thought that I would be a diagnostician, healer, and confidante. I did not expect to be a navigation system for my patients.

I recall two patients, in particular, from our office. One had spinal cord compression and early cauda equina syndrome. Despite my colleague spending hours on the phone trying to get the necessary MRI with contrast, and trying to get the patient seen urgently by the appropriate specialist, he ended up having to send the patient to an already overburdened emergency department to access the care he needed. The other patient needed urgent investigations for a pancreatic mass. It took multiple phone calls, eventually getting hold of the specialists on their personal cellphones, to arrange the urgent diagnostic tests and surgery that patient needed. Otherwise, these two patients and countless others like them would still be waiting for treatment, or worse, they would be permanently harmed or even dead.

We are not always able to pull the necessary strings to get patients in for the care they need in a timely fashion. Most of the time, patients wait patiently to be seen by a specialist or to undergo a diagnostic test. Most of the time, they wait longer than is reasonable. If the government can't afford to provide comprehensive health care in a timely fashion, then they shouldn't prevent patients from accessing it by their own means. I often joke with patients who injure themselves while at home or at play that they would get faster treatment if the injury had happened at work. But it's not a joke. Workers, RCMP members, prisoners, federal employees, and visitors to Canada can all access expedited care through private insurance. As can the citizens of Quebec, thanks to the Chaoulli decision of the Supreme Court of Canada. As can your pet.

It is time to acknowledge that we already have a multitiered health care system. We have to pay for prescriptions, for spectacles, for physiotherapy, etc. Private insurance is available for those services. Why not make private insurance available for other medical services? It's also time to rein in health care spending, by spending less on the *administration* of health care. Unfortunately though, the people charged with deciding how health care dollars are spent are not the people who actually provide the health care. Those of us on the front lines (doctors, nurses, and others) are the ones trying to do the best we can with limited resources. Don't blame us for the rationing of health care.

—DBC

Competing interests

Dr Chapman is part owner of a private diagnostic facility.

Doctors in a dangerous time (safety first)

After my first week of rural rotation I felt pretty comfortable. As a medical student, it was my first time in Atlantic Canada and the elective was working out well. My preceptor, bespectacled and frosty-bearded, would pick me up in the morning and we would discuss my previous night's reading. Upon arrival at the clinic bungalow, I was given my own fluorescent room in which to see patients before meeting back in the office with its dark leather chairs and large oak desk to discuss the case. Lunch was slow and social as we met other community doctors for educational talks. (For fear of the answer and the loss of plausible denial, I didn't ask who sponsored those sessions.) The afternoon repeated the morning's clinical rhythm and my preceptor would drive me back to my host family's home at the end of day, all the while recounting lessons learned from his decades of experience.

Medical school is a distant and complex memory and, as a practising physician, now I can do more.

Everything seemed fine until one late afternoon when, as we prepared to leave, the office assistant sheepishly knocked on the office door. A young woman had come to the clinic asking to be seen. "I told her we're closed, but she insists on seeing you. She's pregnant and doesn't want to be." My preceptor barely lifted his head and replied through terse lips, "Well, tell her we don't tolerate that kind of thing around here. She can come back if she wants prenatal care. Eric, you ready to go?" And like that we left out the back and climbed into his car for a silent ride home. We never saw that woman. We never spoke of it again.

I often think of that moment and the emotions that followed: guilt about not speaking up, anger at my preceptor's decision, depression over my apparent impotence, and denial that it was okay because she would have received care elsewhere, right?

Acceptance has been a farther reach. Yes, my preceptor was my lifeline for education, evaluation, transportation, and social interaction. But I could have challenged him about his duty to care. I could have offered to see the woman. I could have done something. I could have done more.

Medical school is a distant and complex memory and, as a practising physician, now I can do more. I can be aware of my body language and my choice of words. I can work with my colleagues to design a welcoming clinic and train staff to respect everyone who comes in. I can encourage learners to question what they have been told to just accept. I can be open to criticism and solicit feedback to understand the things that I don't know I don't know. Our behaviors and our systems and our attitudes tell others how we value their belonging in our world.

There are and will continue to be many contentious issues that engender strong reactions because we care deeply. But we can strive to debate passionately about issues while respecting each other as people worthy of belonging. Because no matter our individual views on abortion, taxation, medical assistance in dying, substance decriminalization, and allocation of resources (to name a few), we all want the best for our patients, our communities, our families, and ourselves.

None of us is perfect, but we can learn from and forgive our mistakes and those of others. Because only by looking out for each other and creating safe spaces for diverse opinions can we truly be "Better Together."

—Eric Cadesky, MDCM, CCFP, FCFP
Doctors of BC President

letters to the editor

We welcome original letters of less than 300 words; they may be edited for clarity and length. Letters may be emailed to journal@doctorsofbc.ca, submitted online at bcmj.org/submit-letter, or sent through the post and must include your mailing address, telephone number, and email address. Letter writers will be required to disclose any competing interests.

Re: Why infertility patients deserve our attention

I am a physician in BC and a long-standing infertility patient.

First of all, I wanted to say thanks for publishing the recent articles about infertility in the *BCMJ*. The editorial especially resonated with me [*BCMJ* 2018;60:202]. It has been difficult being a physician dealing with infertility and trying to balance the emotional, physical, and financial burdens of treatment. There are real logistical issues when trying to coordinate work scheduling with a sometimes-uncooperative reproductive cycle! Beyond the logistical, it is also emotionally wearing to live and work in a world in which the joy of growing families and pride in children is constantly celebrated with little or no acknowledgment for those who struggle to achieve these life goals.

I have met many fellow infertility patients over the years and have seen how much they suffer, and how there is still strong societal stigma. I am very fortunate that I was able to afford the treatment I needed, but for many others, finances pose a real barrier. I would like to do whatever I can to help turn this tide, particularly with respect to funding for treatment in BC.

I wrote a letter to the Ministry of Health a few months ago, and part of their reply really surprised me: "MSP relies on the advice of the medical profession in determining the medical necessity of procedures. To date, there has been no indication from the medical profession that it considers IVF to be medically necessary."

I have reached out to some of my obstetrics and gynecology colleagues who may be able help advocate for infertility patients. I had been hesitant to reach out to reproductive endocrinologists in BC to ask them to get behind the cause because I do understand that public funding could significantly impact the current compensation models, and I wasn't sure if progress in this area would actually be supported. However, after reading Dr Dunne's editorial, I know that the details can be worked out and that infertility patients do indeed deserve the support of all physicians, especially those who deal with reproductive medicine.

Thanks again for bringing attention to a population that faces a lot of stigma.

—Susan M. Lee, MD, FRCPC, MAS
New Westminster

Authors reply

In my editorial, I wrote that it would require a "brave candidness" for physicians to admit that infertility affects us, too. Thank you for your letter, and for your bravery.

Your initiative in writing to the Medical Services Commission is also laudable. Their dismissive response is not only disappointing but also incorrect.

The World Health Organization has stated that infertility is a global public health issue.[1] The Medical Services Plan (MSP) in British Columbia recognizes infertility as a disease for which investigations and surgical management are insured. Unfortunately, MSP does not cover infertility treatments such as insemination or in vitro fertilization (IVF), which are far more efficacious than surgery.

The medical profession in BC has made requests to the Minister of Health to consider insuring IVF. In response to my colleague's letter, the then-minister, Kevin Falcon, stated that IVF would not be insured because it was "experimental."

IVF is not experimental; 25 July 2018 marked the 40th birthday of Louise Brown, the world's first IVF baby. Dr Robert Edwards received the Nobel Prize in Physiology or Medicine in 2010 for the development of IVF. A Canadian randomized controlled trial published in 2004 demonstrated the benefits of IVF over expectant management (NNT = 4).[2]

For women with bilateral fallopian tube obstruction or men with severe male factor, IVF provides high pregnancy rates where conception could not otherwise occur (pregnancy rates that are significantly higher than those resulting from surgical repair of fallopian tubes, which *is* insured by MSP).

Unfortunately, access to fertility treatment in Canada is suboptimal. IVF utilization rates are less than

one-third compared with jurisdictions where fertility treatment is funded (Australia, Belgium, Israel). Cost is by far the largest barrier, as demonstrated by the introduction of provincially insured fertility treatments in Quebec, which increased IVF use by more than 250%.

The persistent refusal of fertility care funding has nothing to do with being experimental or lack of awareness by the Minister of Health. Rather, in spite of the previous Liberal government's Families First agenda, there was no concern for residents of BC who could *not* start a family.

While the current NDP government has demonstrated a willingness to improve access and affordability for child care, we hope this letter serves as notice that the medical profession sees a strong need for fully funded fertility care. Many residents of BC need medical help to build their families. Providing MSP coverage for this service will create a future generation of contributing residents (and taxpayers) for this province.

Thank you, Dr Lee, for reinvigorating this conversation.

—Caitlin Dunne, MD, FRCSC
Co-Director at the Pacific Centre for Reproductive Medicine
—Jon Havelock, MD
Co-Director at the Pacific Centre for Reproductive Medicine

References

1. World Health Organization. Infertility is a global public health issue. Accessed 6 June 2018. www.who.int/reproductive health/topics/infertility/perspective/en.
2. Hughes EG, Beecroft ML, Wilkie V, et al. A multicentre randomized controlled trial of expectant management versus IVF in women with Fallopian tube patency. Hum Reprod 2004;19:1105-1109.

Re: Infertility: Testing and diagnosis

Thank you for publishing the article, "Infertility: Testing and diagnosis for the community physician," by Dr Caitlin Dunne in the May 2018 issue of the *BCMJ*.

I am a new-to-practice community- and hospital-based family physician. Despite having read both the Society of Obstetricians and Gynaecologists of Canada guideline and an American Academy of Family Physicians review on infertility, I was still treading a bit carefully with first-line infertility testing in the family practice office. Dr Dunne's article was clear and concise, helped outline the rationale and steps for testing, and explained the hormonal mechanisms required to understand the tests to a reasonable level of detail. Thank you for the great piece; it will serve as a fantastic resource for both practising physicians and trainees.

—Goldis Mitra, MD, CCFP
Vancouver

Re: Daily ibuprofen may prevent Alzheimer disease

Dr McGeer and colleagues report on a study of the neuroinflammatory process leading to the cognitive deficits that define Alzheimer disease clinical onset in an article titled "Alzheimer's disease can be spared by nonsteroidal anti-inflammatory drugs," published in the *Journal of Alzheimer Disease*.

They recommend that people get tested for peptide amyloid beta protein 42 (Abeta 42) in saliva at age 55, 10 years prior to the usual age of 65 when the onset of Alzheimer disease would typically occur. If it's elevated, these people should take daily ibuprofen to ward off the disease, according to a related News item published in the *BCMJ* [2018;60:191].

In March 2017 the European Society of Cardiology issued a press release titled "'Harmless' painkillers associated with increased risk of cardiac arrest, with specific reference to ibuprofen and diclofenac."

On 5 November 2017, the FDA strengthened labels warning that (nonaspirin) NSAIDs, used for the temporary relief of pain and fever, can increase the risk of heart attack, stroke, and death.

In addition, elderly people may have increased cardiovascular risk and disease.

In their article, Dr McGeer's team states "we are currently investigating whether NSAID consumption can affect these levels [of Abeta 42]."

Hence, the general public should be cautioned not to jump into action by taking daily ibuprofen to prevent Alzheimer disease until Dr McGeer's investigation has been completed. It is not clear if long-term daily use of ibuprofen associates with significant cardiovascular side effects.

—H.C. George Wong, MD, FRCPC
Vancouver

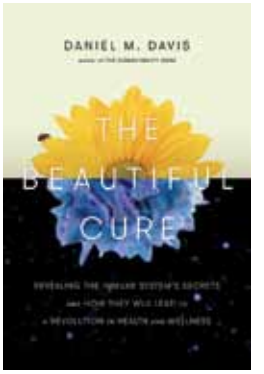
Dr McGeer has read Dr Wong's letter and agrees with his comments. —Ed.

Book review: *The Beautiful Cure: Revealing the Immune System's Secrets and How They Will Lead to a Revolution in Health and Wellness*

By Daniel M. Davis. Doubleday Canada, 2018. ISBN-10: 0385686765. Hardcover, 272 pages.

During medical school, and forever after, I found immunology to be the medical subject that was hardest to understand. Apart from the arcane processes we had to learn about and the colorless and confusing terminology, there were bigger questions that even immunologists could not explain—such as how does the immune system know which foreign material it should attack (e.g., bacteria and viruses) and which it should leave alone (e.g., food and placental tissue)? Then along came AIDS, and we were even more confused. Over time, I developed a working concept of the larger immune processes and welcomed wholeheartedly the introduction of immune therapies for multiple conditions, but deep down I knew that I was faking my understanding.

I leapt at the chance to read this book because such luminaries as Bill Bryson and Stephen Fry reviewed it in glowing terms. If a nonphysician has described the book as "eye-opening," I thought that surely it would open my eyes too. And it did, kind of—I have a better understanding of some immune processes, but I would still have difficulty explaining much of this to others. I don't think it's the author's fault, because he has an engaging writing style. He describes major breakthroughs using multiple anecdotes, and his storytelling holds the reader's attention. But at the end, sadly, I remained not as informed as I hoped to be. In his epilogue, the author seems to acknowledge the book's limitations: "Someday we may find a grand unified theory of the immune system, a few principles that capture precisely how it all works, but that dream may never work out. And it might even be the wrong thing to aim for." When a professor of immunology says something like that, it's no wonder that so many of us remain confused and intimidated by the subject.



Having said that, however, I'm keeping the book, and I plan to read it again. Maybe this first exposure just triggered a primary response.

—TCR

J.H. MacDermot writing award winners

The 2017 J.H. MacDermot Prize for Excellence in Medical Journalism: Best article or essay was awarded to Drs Justin Burton, Emma Dowds, and Alexander Dodd for their article, "First aid training for seniors: Preventing falls and medical morbidity in the elderly" [*BCMJ* 2017;59:189-191].

The authors wrote the article while in their third year of medical school at UBC in the Vancouver Fraser Medical Program. Dr Burton's interests include primary care medicine and collaboration between physicians, first responders, and the community. Dr Dowds plans to pursue a career as a rural GP. Prior to attending medical school, she worked and studied in the field of Alzheimer disease and dementia. Dr Dodd previously completed a bachelor's degree in biological psychology at UBC and, prior to attending medical school, taught first aid with the British Red Cross. They all hope to continue writing for the *BCMJ* as they transition into residency.

BC medical students are encouraged to submit full-length scientific articles and essays for publication consideration. Each year the *BCMJ* awards a prize of $1000 for the best article or essay written by a medical student in the province of BC. For more information about the award, visit www.bcmj.org/submit-article-award.

From left to right, Drs Alexander Dodd, Emma Dowds, and Justin Burton at the UBC MD graduation on 23 May 2018.

Doctors of BC 2018 annual general meeting

Doctors of BC members attended the 2018 annual general meeting on 2 June 2018 at the Robert H. Lee Alumni Centre on the UBC campus. The day started with the SGP AGM, followed by the Doctors of BC AGM with an address by the CMA past president, Dr Granger Avery. The evening's events commenced with a reception, followed by the Doctors of BC annual awards ceremony, including installation of officers, and the annual dinner and dance, with an address by President Dr Eric Cadesky, who talked about his plans for the coming year: "Practice is changing and the old lines that we have drawn to create identities no longer hold," he said. "When we think about GPs and specialists, when we look at our emergency rooms and our operating rooms and our case rooms, we see doctors working shoulder to shoulder whether they be Royal College certified or members of the College of Family Physicians. They are working to the same end." For award winners, and photos from the day, visit www.doctorsofbc.ca.

New Rapid Access Spine Triage Program at VGH

The Rapid Access Spine Triage Program at the Brenda and David McLean Integrated Spine Clinic is a new service for patients with non-emergent spinal complaints. Working with medical practitioners and spine surgeons, senior advanced practice physiotherapists with spine-specific advanced training conduct clinical assessments and triage patients who need to see a surgeon. Referring physicians receive a detailed report, and patients requiring a surgical consultation are booked on an expedited basis. To refer a patient, use the referral form found at: www.vch.ca/Documents/Blusson-Spine-Centre-Referral-Form.pdf.

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Doctors of BC Scholarship winners

Each year Doctors of BC presents two scholarships to children of Doctors of BC members who display outstanding scholastic achievement, remarkable volunteer contributions, and well-rounded extracurricular interests. Each recipient receives $1000 toward postsecondary education. Winners are selected by Doctors of BC committee members through an anonymous process.

This year's winners were selected from a group of applicants who all possessed a well-balanced list of academic, extracurricular, and volunteer achievements.

Anneke Dresselhuis, New Westminster

Ms Anneke Dresselhuis graduated from Carver Christian High School in 2018 and will be starting the University of British Columbia's dual degree program in the fall to pursue a Bachelor of Fine Arts and simultaneously a master's in Management through the Sauder School of Business. Anneke is passionate about making art, but acknowledges that the practical ability to promote and market her work is of equal importance.

Throughout high school Anneke maintained high academic standing, served on student council from grades 8 through 12 in various roles, and volunteered as a peer mediator (a student counselor assisting younger students who need emotional and social support to work through conflict) at her school. To view a portfolio of Anneke's artwork, visit http://adresselhuis.wixsite.com/arts.

John-Paul Ng, Vancouver

Mr John-Paul Ng graduated from Vancouver College in 2018 and will be attending the University of British Columbia in the fall in the Faculty of Science, with the aim of continuing on to medical school to be able to serve the physical and mental health needs of members of his community.

John-Paul maintained a high academic standing throughout high school, and has studied the Kodaly Method of piano since age 4. He remains a loyal student of the Vancouver Academy of Music 14 years later and is now preparing for the ARCT piano performer's diploma and grade 10 cello exam. John-Paul also started practising karate at age 7, and travelled to Japan this past summer to attend the 11th International Tai Kai Competition. He qualified for his first-degree black belt in 2017. Throughout childhood John-Paul also attended UBC physics and astronomy summer camps unfailingly, and started to volunteer at the camps as soon as he met the age requirement.

For more information about the award, visit www.doctorsofbc.ca/resource-centre/awards-scholarships/doctors-bc-scholarship-awards.

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Breathing easier from home: Home health monitoring at Island Health

With an aging population and a rising prevalence of chronic disease, health authorities are looking outside the box to leverage technology and existing clinical resources to provide additional care options for patients. Island Health's Home Health Monitoring (HHM) solution is a form of remote patient monitoring currently offered for Island Health patients with heart failure or COPD. Patients can be referred through a physician, nurse, family member, or they can self-refer. Once enrolled, patients receive a tablet, blood pressure cuff, oximeter, and weight scale to use in their home. Patients are taught how to use the technology, are provided with an education session on their conditions, and have their care plan explained. The patient completes a quick questionnaire on the tablet every morning designed to assess their current state and teach the patient about their condition. The nurse monitors results Monday to Friday, works with the patient to review results, provides ongoing education and self-management coaching, and shares pertinent information with the patient's physician and other care team members. HHM does not replace physician care; instead, it gives patients the opportunity to learn about their condition, how to self-monitor, and how to self-manage to limit exacerbations and improve quality of life.

A recent evaluation of the service used mixed methods to assess the impact of HHM on health care quality, access, and productivity. Program use, acute care use, and stakeholder feedback were analyzed. A total of 291 patients who previously participated in HHM were assessed for acute care use based on admittances specific to their monitored condition 90 days pre-HHM versus 90 days post-HHM.

Key findings

Use of HHM resulted in:

- An 81% reduction in emergency department visits.
- A 92% reduction in inpatient admissions.
- A 94% reduction in total length of stay.

Despite these positive results, an analysis of the program use found that only 4% of heart failure and COPD acute care admissions in Island Health were referred to HHM.

Previous HHM patients were invited to complete an anonymous survey. A total of 90% indicated that the equipment was easy to use, 92% indicated that they improved their knowledge of their condition, and 93% indicated satisfaction with the program (n = 72). Key informants were also interviewed from the following stakeholder groups: physicians, HHM nurses, and hospital liaisons. Much of the feedback for program improvement is already underway, including expanding to more morbidities and increasing application functionality. Positive perspectives reported by the informants include that HHM is effective and that it enables patients to be proactive about their health.

The HHM program is expanding with support and feedback from a variety of stakeholders. A diabetes protocol was added in May 2018, along with increased application functionality. Future efforts will build awareness of the program's successes and seek referrals. The next phase of the program will be evaluated to assess whether the current benefits continue to be realized and to support continuous quality improvement.

—William Cunningham, MD, CCFP, CCFP (EM)
—Lisa Saffarek, RN, BScN
—Michelle Wright, BSc
—Jessica Sullivan, BA, MBA

BC physicians use clinical expertise to answer burning research questions

Twelve exceptional BC health professionals (including 10 physicians) have been funded in the Michael Smith Foundation for Health Research's (MSFHR) second Health Professional-Investigator (HP-I) competition. Each will receive funding to support research focused on answering questions derived from their practical experience and clinical expertise.

MSFHR's HP-I program is designed to develop BC's research talent and help decrease the gap between health research and its implementation by supporting health professionals who are actively involved in patient care to conduct and apply research relevant to health and/or the health system. The idea is that clinicians with an intimate understanding of patient care are supported to apply their clinical knowledge in a research setting to answer questions straight from the bedside.

Award recipients include physicians specializing in cancer, stroke, asthma, and HIV. Alongside their clinical roles, these awardees will conduct research intended to improve patient health outcomes—from testing a handheld breast cancer imaging tool to exploring how to identify which HIV patients are most likely to benefit from adherence support via text message.

This year, MSFHR is cofunding two HP-I awards, one with the Providence Health Care Research Institute, and one with the Vancouver Coastal Health Research Institute and VGH + UBC Hospital Foundation. Each award recipient will receive a salary contribution to help them protect time for research for up to 5 years or support research personnel directly associated with their work.

The complete list of award recipients and research projects is available at www.msfhr.org/2018-HPI-award-recipients.

Cigarette smoke directly damages muscles in the body

Components in cigarette smoke directly damage your muscles. New research, published in *The Journal of Physiology*, indicates that smoking decreases the number of small blood vessels that bring oxygen and nutrients to muscles in the legs.

Smoking limits a person's ability to exercise because it makes their muscles weaker, and it was widely believed this muscle weakness is because the lungs become inflamed and eventually destroyed by habitual smoking, thereby limiting activity and exercise. However, this study suggests that cigarette smoke directly damages muscles by reducing the number of blood vessels in leg muscles, thereby reducing the amount of oxygen and nutrients they can receive. This can impact metabolism and activity levels, both of which are risk factors for many chronic diseases, including COPD and diabetes.

The research was conducted by the University of California, San Diego, in conjunction with Universidade Federal do Rio de Janeiro and Kochi University. It involved exposing mice to smoke from tobacco cigarettes for 8 weeks, either by inhalation or by injecting them with a solution bubbled with smoke.

The study did not identify which of the approximately 4000 chemicals in cigarette smoke are responsible for this muscle damage. Further research will aim to identify the responsible chemicals and explain the process by which they reduce the number of blood vessels.

The article, "Cigarette smoke directly impairs skeletal muscle function through capillary regression and altered myofiber calcium kinetics in mice," is available at https://physoc.onlinelibrary.wiley.com/doi/abs/10.1113/JP275888 (log in required).

Advocating for something better: Dr Eric Cadesky

Doctors of BC's new president, Dr Eric Cadesky, talks about dealing with the difficult issues facing the medical profession with respect and collegiality.

The BCMJ *interviewed Dr Cadesky shortly before he became president on 2 June 2018.*

Dr Cadesky at his clinic in Vancouver.

Can you tell us a little about your background?
I was born and raised in Toronto, did my undergraduate degree at U of T, and then went on to study medicine at McGill; I enjoyed student life in Montreal so much that I stayed for residency in family medicine. I chose family medicine because each of my clinical rotations brought new challenges and skills that I wanted to keep as part of my future practice. I loved Montreal and learned French while I was there so that I could get the most out of my experience in and beyond medicine. The multicultural setting sparked an interest in languages and I ended up backpacking through countries like Cuba and Ecuador where I learned Spanish. Since moving to Vancouver I try to care for people in their first language, and in return they correct my grammar.

What are the greatest challenges facing students and young doctors today?
There are so many challenges for our learners, but I think that they can be summed up by "reversal of expectations." I remember getting that thick envelope in the mail from McGill—unlike the thin ones I received from many other schools—and everyone telling me that my acceptance letter was a golden key to a bright future. But there are escalating costs of tuition and living; the average debt is about $100 000 in Canada and almost double that in the US and abroad. Then once finished medical school, excellent applicants may not even get a residency spot in CARMS. And even after getting a spot, there is a mismatch between the jobs we are training people for and the jobs that are available. That is why I'm so proud of how Doctors of BC recognizes, respects, and supports our learners. We provide all UBC medical students with free disability insurance. We have created permanent positions for learners in the Representative Assembly and bring students, residents, and early career doctors as part of our caucus to the CMA General Council. We're also advocating for better health human resource planning and matching medical student output to residency positions.

What are your thoughts on solving the doctor shortage?
This is a difficult problem, and we have still not recovered from cutbacks to medical school enrolment that occurred decades ago. In addition to the actual shortage of doctors, there is even more pressure as we continue to apply an old system of work to more complex health needs. Contrary to click-bait headlines in the media, our younger colleagues are very willing to work—they just also want to work smarter, too. They want to be able to integrate their

work and personal lives and continue to grow as people and healers. They want models of support that allow them to provide needed care. As we enter the negotiation process we are listening to opinions on how to make our system more efficient so that we make better use of the resources we have. Doctors want to spend more time doctoring, so we have to look at team-based care.

Speaking of team-based care, governments appear to see the role of nurse practitioners, midwives, and physician assistants as mechanisms to reduce costs and help address poor access to family physicians. Do you agree?
I believe in a team approach where patients have relationships with connected health care professionals working together with defined roles.

What aspects of the Doctors of BC president's role are you most looking forward to?
Personally, I want to meet and hear from as many members as possible. Just as home visits enrich relationships with our patients, I look forward to visiting members in their communities to better understanding their unique challenges and opportunities. Social media and the new structure with the Representative Assembly have also gone a long way to enabling the association to hear new opinions and voices.

The Medical Services Commission comprises government, physician, and lay representatives, but has always been chaired by a ministry representative. Should Doctors of BC advocate for a rotating chair?
I recently attended my first Medical Services Commission meeting and the chair was fair and looked for consensus. These committees that have both government and Doctors of BC representatives—such as MSC, the Tariff Committee, and the Joint Collaborative Committees [GP Services Committee, Specialist Services Committee, Shared Care Committee, and the Joint Standing Committee on Rural Issue]—function best when an observer would not be able to tell who was representing which party because everyone at the table was focused on finding commonalities and doing the right thing for the people of BC and the doctors who care for them. So I suppose the answer to the question depends on how well the MSC or any similar committee is working.

The CMA has advocated for more resources for seniors care, yet two-thirds of the wealth of Canadians is held by seniors, and CIHI data show young adults and low-income groups are struggling the most with access. What are your thoughts on the CMA's emphasis on seniors?
Seniors bear the brunt of chronic disease in Canada and I welcome advocacy to improve their care.

As we enter the negotiation process we are listening to opinions on how to make our system more efficient so that we make better use of the resources we have.

How can we can reconcile the rising costs and rationing within our health system with the growing demands on resources imposed by changing demographics and the increased options that technology has provided?
As doctors we have an ethical duty to our patients that takes precedence over our responsibility to the government that funds our system. This ethical requirement is also a legal duty recognized by the courts. Having said that, I believe we can advocate for ways to improve efficiency of the system; examples include improved electronic medical records with functional interoperability, appropriate telehealth consultations, secure communication platforms, strong primary care, and increased access to consultant expertise. But technology also increases costs—at least initially—and as our investigations and treatments become more costly there will be difficult conversations on how to equitably use our limited resources.

How is Doctors of BC doing in its role in shaping health policy in BC?
Doctors of BC is very focused on health policy issues. We have a tremendous team working with members to pro-

Dr Eric Cadesky with the Hon. Adrian Dix, Minister of Health

Continued from page 295

duce well-researched, evidence-informed policies. You can read them on the Doctors of BC website. We have had a number of successes in the last year: through our participation in the General Practice Services Committee, Doctors of BC is influential in shaping the patient medical home/team and primary care networks. We also worked with the provincial government to create medical staff associations to benefit facility-based physicians. That said, it *is* a challenge to influence decision-makers, and we are looking at ways that we can be even more effective at advocating for the needs of our members.

How do you reconcile the sometimes competing objectives of collaboration with government with advocacy for the rights of the profession and their patients?

There are so many factors outside our control, but a large part of our association's mission is to promote a social, economic, and political climate in which members can provide the citizens of BC with the highest standard of health care. Our experience is that collaboration is important in achieving that aim.

Over the last 20 years fees have not kept pace with inflation. Will the fee-for-service model continue to serve the best interests of physicians and patients, or might other models of remuneration be favored?

Elderly patients often need house calls and I still do them. These take time but we do it because it's in our patients' best interest. But how we reward doctors for doing the right thing leads into more difficult discussions; for example, I often hear about the problems with intersectional disparities. So we have to talk about payment methods like salary, capitation population, and blended systems. We have to talk about what type of autonomy doctors want over clinical and administrative decisions. We have to talk about the value of a doctor and the things doctors do. These conversations will be uncomfortable, but I hope that we can start to agree on ways to talk about it and other difficult issues with respect and collegiality.

The president's term of 1 year is relatively short. Recognizing that change takes time, what are your main goals for the association?

I want us to rise together as a profession, united in our common goal of improved health for our patients, our communities, our system, and ourselves. We need to hear from, and value, the views of all members, no matter their location, type of practice, stage of practice, or demographics. We are diverse and should celebrate that as we encourage a strongly united profession, supported by Doctors of BC.

Are there some final thoughts you would like to share?

I want doctors in BC to be proud of their association and to feel that it reflects their values and supports them in doing their best. I will continue to listen and learn from our members and I am always a call, email, text, or tweet away.

This is such a challenging time to be a doctor, but also one of great opportunity—perhaps our best chance in a generation to make a real change. I want doctors in BC to stand together to advocate for something better. After all, we are better together.

Get in touch with (or follow) Dr Cadesky

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Phone 604 736-5551
Twitter @drcadesky
Bio www.doctorsofbc.ca/who-we-are/our-president

Why become a medical inspector?

From time to time you will see requests for medical inspectors or audit hearing panel members. You may wonder why anyone would want to be a medical inspector and audit their peers.

When the Audit and Inspection Committee (AIC) orders an on-site audit, the Billing Integrity Program attempts to match the medical inspector with the type of practice undergoing the audit. Having a peer physician conduct the review is in the best interest of the physician undergoing the audit and inspection. As a medical inspector, not only will you help see a colleague through the audit process, you will gain experience and education along the way.

The Billing Integrity Program attempts to match the medical inspector with the type of practice undergoing the audit. Having a peer physician conduct the review is in the best interest of the physician undergoing the audit and inspection. As a medical inspector, not only will you help see a colleague through the audit process, you will gain experience and education along the way.

The AIC is accepting applications for medical inspectors from any section, but currently they are looking specifically for general practitioners, internal medicine physicians and subspecialists, infectious-disease specialists, endocrinologists, rheumatologists, general surgeons and surgical subspecialists, thoracic surgeons, neurosurgeons, otolaryngologists, ophthalmologists, anesthesiologists, psychiatrists, and pediatricians.

Inspectors appointed under the Medicare Protection Act inspect medical records to assess compliance with the payment schedule, the Act, and the Regulations. Inspectors are appointed by the AIC.

Conditions of appointment

Candidates must:

- Have a minimum of 5 years' experience in the applicable specialty.
- Be an active registrant with the College of Physicians and Surgeons of BC.
- Have practices that fall within the accepted standards of the profession or generally designated by the Patterns of Practice Committee (POPC).
- Be supportive of the policies and principles of the POPC and licensing body.
- Have the ability to exercise sound judgment.
- Have an understanding and knowledge of the MSC payment schedule.
- Not be subject to circumstances that could give rise to a conflict of interest.

Inspectors are required to:

- Sign a 3-year contract, with possible extension, with the Ministry of Health.
- Attend an orientation and training session.
- Maintain confidentiality and independence at all times as required by Section 49 of the Act.
- Work as part of a team while on site.
- Attend on-site audits, which may include travel and stay at accommodations outside the medical inspector's city (length varies from 3 to 5 days).
- Inspect medical records, make determinations about compliance with the payment schedule, and flag any quality-of-care concerns.
- Have an exit interview with the auditee to clear any unanswered questions or to obtain explanations of billing issues.
- Review and sign final audit reports.
- Act as a witness before a panel established under the Act, if necessary.

Compensation

Medical inspectors will be paid an hourly rate derived from the hourly equivalent of the Doctors of BC's sessional rate for GPs or specialists. Inspectors will also receive compensation for eligible travel expenses.

If you are interested in becoming a medical inspector, please contact Juanita Grant, manager, audit and billing, Physician and External Affairs at 604 638-2829 or jgrant@doctorsofbc.ca.

—Lorne Verhulst, 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, manager, audit and billing, Physician and External Affairs, at 604 638-2829 or jgrant@doctorsofbc.ca.*

Robert C. Mack, MD, Arlene Herman, MSW, Kate Harris, MPA

Medication wastage in residential care facilities

A recent study of medications discarded unnecessarily at residential care facilities in the Interior Health region points to three main contributing factors and reveals that policy changes could reduce wastage and lead to significant cost savings.

ABSTRACT: Medication wastage is a significant concern at residential care facilities in British Columbia. In 2016 the residential care quality improvement team for the South Okanagan Similkameen Division of Family Practice undertook a study that identified three factors contributing to medication wastage: multi-dose packaging, all physician medication orders in residential care facilities are considered STAT by default, and restrictions on reusing medications. The team consulted with pharmacists, physicians, nurses, facility directors of care, and health authorities before quantifying medications returned to a pharmacy at 10 facilities over a 4-week period. Tracking showed that, each month, 13% of residents had their medication strips returned to the pharmacy, most commonly because of a change in prescription. These returns included 818 medications and an estimated 6229 pills. Extrapolating from these findings suggests that in BC each year 50 000 mid-week multi-dose medication strips are returned and 2.5 million pills are incinerated. The hard cost of these discarded medications is estimated to be $570 000 per year. Soft costs were not evaluated. We recommend that a provincial working group of pharmacy leads be formed and that policy changes to reduce medication wastage be tested and implemented.

The residential care initiative (RCI) of the General Practice Services Committee (GPSC) aims to improve care for patients in facilities through five best practice recommendations,[1] one of which is the implementation of meaningful medication reviews. The RCI also aims to achieve system-level outcomes that include reduced cost per patient with higher quality of care and improved patient-provider experience.[1] While working to implement meaningful medication reviews and achieve RCI system-level outcomes, the residential care quality improvement team of the South Okanagan Similkameen (SOS) Division of Family Practice discovered significant medication wastage and set out to study this in more detail.

Dr Mack is a retired family physician who works part-time as a medical coordinator for the South Okanagan Similkameen Division of Family Practice. Ms Herman was formerly project lead for the residential care initiative of the South Okanagan Similkameen Division of Family Practice. Ms Harris was formerly the coordinator for evaluation and quality improvement for the South Okanagan Similkameen Division of Family Practice.

This article has been peer reviewed.

Factors contributing to wastage

Three main factors contributing to medication wastage were identified early on and then quantified at 10 residential care facilities over a 4-week period in 2016:

Multi-dose packaging. Medications at most residential care facilities in BC are delivered in multi-dose packages, with several pills sealed together in one pouch. Often a resident is allocated several pouches per day, which are delivered in weekly strips. Multi-dose packages are used by private pharmacies because they save time on the ward and are less prone to error. It is understood that Interior Health is moving to the use of multi-dose packaging for these same reasons.

STAT medication orders. All physician medication orders in residential care facilities are considered STAT by default. A STAT medication order must be changed immediately, whereas a Next Pouch Day medication order change can wait until the next regular scheduled delivery of medications.

Restrictions on reusing returned medications. The standards of practice for the College of Pharmacists of BC do not allow pharmacies serving residential care facilities to reuse returned medications unless the medication is in a single-drug, sealed dosage unit or container as originally dispensed.[2] The use of returned medications poses several safety risks, including the possibility of cross-contamination and the possibility of errors occurring when previously dispensed medications are reintroduced to the pharmacy system.

The combined effect of these three factors on current practice in residential care facilities is significant. When a medication is discontinued or the dosage is changed, a resident's entire strip of weekly medications is immediately returned to the pharmacy for controlled disposal. In one instance we discovered that a simple reduction in the dosage of acetaminophen, a drug costing pennies, led to the disposal of medication worth approximately $100.

Wastage of this kind shows how an improvement in one area of health care can have unintended consequences in another area. In this case, the efforts of provincial residential care to improve patient care by increasing the frequency of proactive physician visits, meaningful medication reviews, and physician attendance at care conferences[1] have increased physician participation in all of these aspects of care and resulted in a corresponding increase in returned medications.

Project overview and design

After the South Okanagan Similkameen Division of Family Practice reported on systemic medication wastage to the project director of the General Practices Services Committee, the GPSC provided a small grant for the division to partner with a pharmacy and determine the costs associated with medication wastage.

Early on in preparing for the study we discussed medication wastage with the provincial pharmacy leads of Remedy'sRx, London Drugs, Save-On-Foods, and Sobeys/Safeway, the providers of pharmacy services for a majority of the 30 000 residential care beds in the province. All were aware of medication wastage from returns, and several had tried to remedy this. During our initial discussions we also discovered soft costs to wastage, which include time spent by both pharmacy and health care staff dealing with medication returns, transportation costs, and possible environmental costs resulting from the incineration of pills. We did not measure these soft costs in our study. We also did not address the risk of medication errors resulting from midweek medication change. We did discuss the potential for medication errors, and hired a nursing consultant to delineate the problem by developing a sample nursing flow process for changes to medication orders, but we concluded that this complex subject was beyond the scope of our study. In future, this concern might be considered in more detail along with the soft costs mentioned above and other factors contributing to wastage not yet identified.

Pharmacy partner

Remedy'sRx was a natural partner for this project because this pharmacy has a contract for 7000 beds in the province, and their Kelowna facility receives all medication returns for 10 residential care facilities within the Interior Health region. In addition, the SOS Division of Family Practice has already worked with Remedy'sRx and two of their clinical pharmacists on a polypharmacy risk reduction project.[3] Remedy'sRx had also previously investigated medication wastage and developed a new order form that allowed physicians to indicate if an order was STAT or Next Pouch Day, and found the form had limited success in reducing wastage.

Other stakeholders

We discussed medication wastage and its potential magnitude with Interior Health. The health authority was quick to recognize the significance of the issue and wanted to be kept apprised of findings.

Of the 10 residential care facilities that return medications to the Remedy'sRx facility, two are located within the SOS Division of Family

Practice. The remainder are located within four other divisions: Central Interior Rural, Central Okanagan, Shuswap North Okanagan, and Thompson region. The SOS Division of Family Practice medical lead discussed the project with the residential care medical leads from these four regions, outlining the purpose of the project and soliciting their support. They were reassured that the study would not interfere with the operation of their facilities. Prior to these discussions, some of the divisions were aware of the medication wastage issue but not of its potential magnitude; others were not aware of the issue. All divisions involved were supportive of this project and interested in the outcome of the study.

Development of a tracking process

The creation of a tracking process was a collaborative effort undertaken by SOS Division of Family Practice staff and Remedy'sRx staff, who quantified the number of medications returned during a 4-week period. Remedy'sRx did not identify individual facilities or patients and reported on the aggregate returns. Funding from the GPSC supported hiring a pharmacy research assistant to facilitate the tracking process.

A visit to the Kelowna facility of Remedy'sRx helped project members understand the process of medication returns, and the process for packaging medications (**Figure 1**). The project team then developed a standardized tracking sheet to capture relevant information (**Figure 2**). Facilities were identified by letters and residents by randomly assigned numbers to anonymize the data.

During the 4-week study period, medication changes came in over the

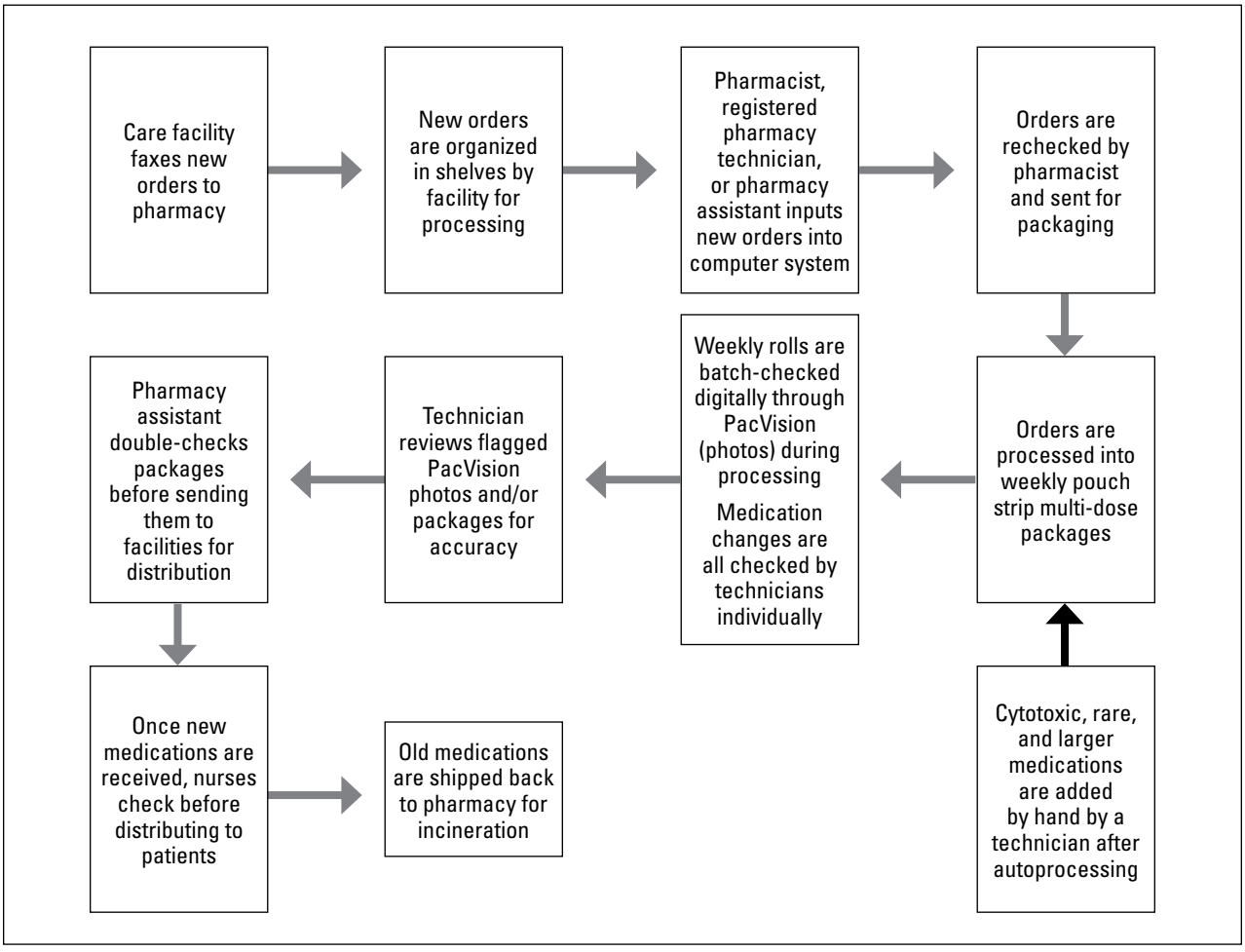

Figure 1. Pharmacy process flow for medication changes.

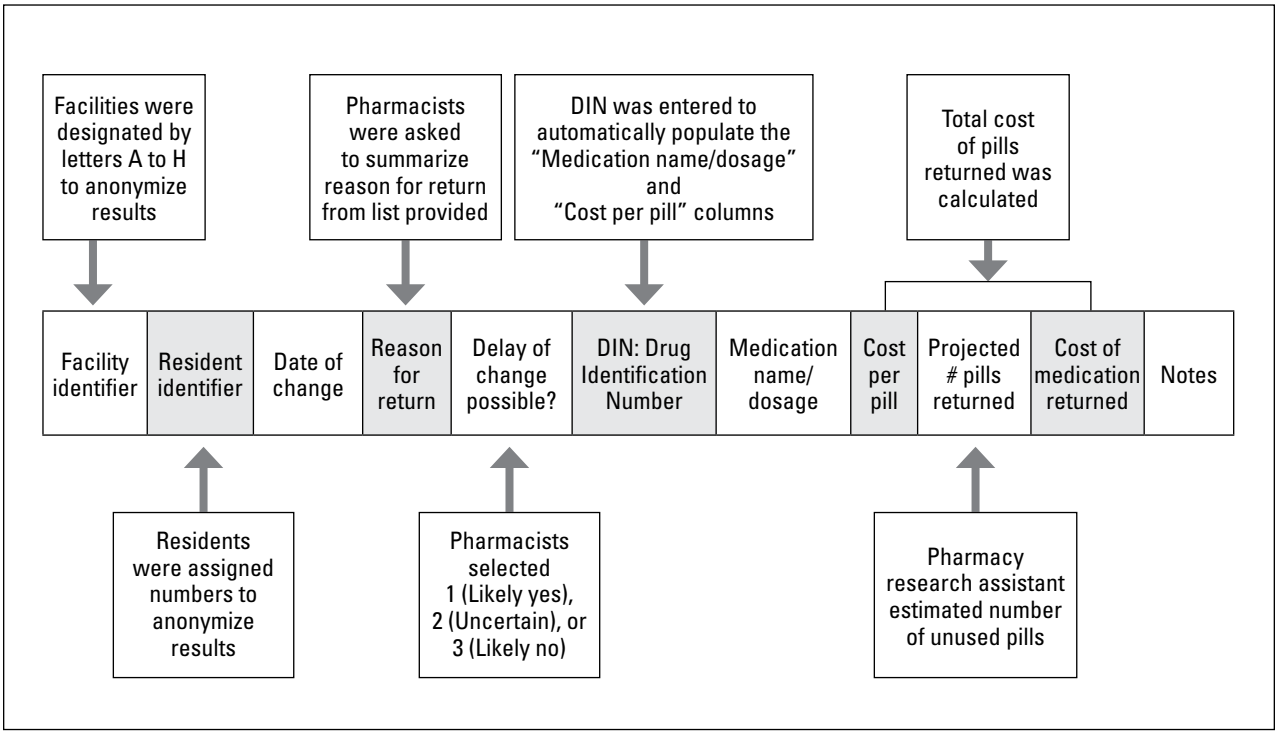

Figure 2. Tracking sheet used for medications returned to pharmacy during study.

course of the day and were collected and processed by the facility. These changes were tracked, and a pharmacist reviewed the change and added the appropriate additional notation to a copy of the requisition, which was then collected and batch-entered by the pharmacy research assistant. Once the study period ended, all data were entered by the assistant and double-checked by a pharmacist. The data set was then reviewed by Remedy'sRx and shared with the project team.

Results of tracking

Data were analyzed for 948 beds in 10 different facilities, ranging in size from 46 to 152 beds per facility. During the 4-week study period, 125 residents (13%) had medication strips returned. These returns included 818 medications and 6229 pills (an approximation since not all doses were whole) worth a total of $1382.61 (**Table**). Most of the medication returns (85%) were due to prescription changes, with the remainder being due to either resident transfer or death.

Table. Total values for medication returns at 10 Interior Health residential care facilities during 4-week study period.

Number of beds	Weekly strips returned	Medications returned	Pills returned	Cost	Cost per bed per year
948	125	818	6229	$1382.61	$18.96

Extrapolating from these findings, we estimated that each year in BC:

- 50 000 medication strips are returned.
- 2.5 million pills are returned.
- $570 000 is spent on wasted medication.

Pharmacists estimated that the cost of the packaging for discarded medications could be as high as $70 000 per year. Pharmacists also estimated that approximately two-thirds of returns were for prescription changes that could have been delayed until delivery of the next weekly medical strip.

Given the significant total cost for returned medications, we were surprised by the low cost of individual pills—less than 10 cents per pill for 50% of returns, and more than 50 cents per pill for only 9% (**Figure 3**). Approximately 40% of all returned medications were simple analgesics, bowel medications, thyroid replacements, or dietary supplements (vitamins, iron, etc.). If these were excluded, most residents were taking only four medications per day.

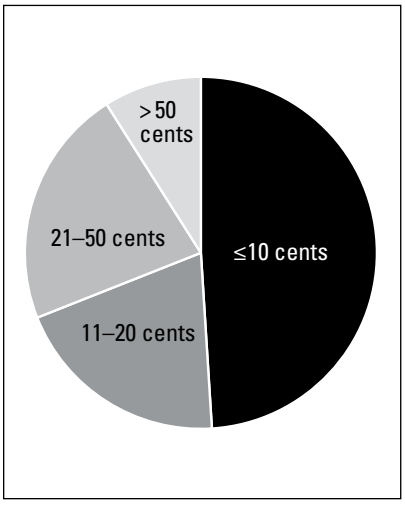

Figure 3. Average costs of returned medications (individual pills).

Results of care provider discussions

The practice standards of many professional groups and governing bodies influence how care is provided and medication is dispensed in residential care facilities, making the issue of medication wastage complex (**Figure 4**). We spoke to a broad range of physicians, Interior Health pharmacists, private pharmacists, nurses, and directors of care to better understand how current practices affect medication wastage. Each of these groups endorsed this project and felt that a reduction in wastage would improve efficiency and the quality of patient care.

Pharmacists

Private pharmacies are currently the major provider of medications to residential care facilities. They use multi-dose packaging and typically deliver weekly. Interior Health pharmacies, which currently use single-dose packaging, deliver several times a week. Interior Health anticipates using private pharmacies for more of their facilities in future and moving to multi-dose packaging.

Except in rare circumstances, pharmacies are not able to reuse returned medications because there is a risk of:

- Cross-contaminating medications during return or repackaging.
- Making errors when reintroducing returned medications to the pharmacy system.
- Mixing medications with different expiry dates.
- Being unable to track medications in the event of a medication recall.
- Initiating chemical changes to medications with repeated heat-sealing.

All four provincial lead pharmacists consulted during this project recognize that the return process is inefficient and leads to discarding medications unnecessarily. They believe improvement is possible and that reducing wastage would allow pharmacists to spend more of their valuable time on high-level tasks.

Facilities

There is no standardized medication order sheet used in residential care facilities in BC. Local health authorities determine actual professional practice standards for nurses, which may or may not conform to the full scope of practice set by the College of Registered Nurses of BC. For example,

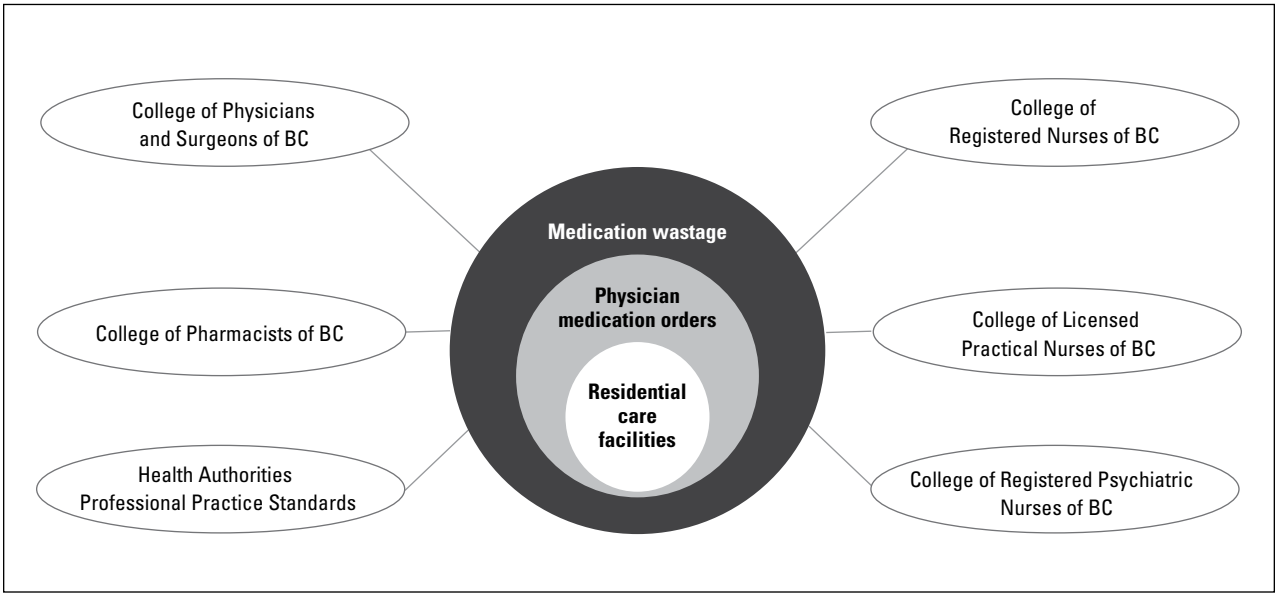

Figure 4. Governing bodies and practice standards for residential care.

Interior Health nursing practice presently mandates that medication orders be dealt with immediately by fax or a phone call to a pharmacy. At present, if a pharmacy delays filling an order, a nurse must record the delay as a medication error.

At present, if a pharmacy delays filling an order, a nurse must record the delay as a medication error.

Physicians

Discussion with medical leads and with a local physician focus group indicated that a majority of residential care medication orders could have been delayed until the Next Pouch Day. Most physicians interviewed were not aware that their orders are automatically treated as STAT and many spontaneously volunteered to make immediate changes to avoid wastage.

Recommendations

We recommend that policy changes to reduce medication wastage be considered. This would involve having committed stakeholders collaborate to study both hard and soft costs and to develop a solution for testing and implementation. Policy changes could include changing the default for medication orders from STAT to Next Pouch Day, unless overridden by a physician order. In addition, we recommend forming a provincial working group of pharmacy leads from the major companies supplying residential care facilities, a suggestion already endorsed by the leads of Remedy'sRx, London Drugs, Save-On-Foods, and Sobeys/Safeway. This working group could assist with standardizing medication order sheets, ensuring that successful practices from individual health authorities become generalized, developing standardized licensing practices, and identifying other sources of wastage. For example, currently a container of topical cream must be discarded and replaced when there is an order change for frequency of application. A less wasteful approach would involve providing a new label for the container of cream.

Summary

Three factors contributing to medication wastage were identified in a study quantifying pharmacy returns from 10 Interior Health residential care facilities over a 4-week period in 2016: multi-dose packaging, all physician medication orders in residential care facilities are considered STAT by default, and restrictions on reusing medications. Extrapolating from study findings suggests that 2.5 million pills are incinerated in BC each year at an estimated cost of $570 000. Although the issue of medication wastage is complex because of the different professional bodies and practice standards governing residential care facilities, stakeholders consulted during this study support reducing medication wastage as a way to improve efficiency and quality of patient care. Future studies might attempt to identify other factors contributing to medication wastage and address soft costs and concerns such as the amount of time spent by both pharmacy and health care staff dealing with medication returns, transportation costs, possible environmental costs from the incineration of pills, and the risk of medication errors resulting from midweek medication change. BCMJ

Acknowledgments

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Competing interests

None declared.

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Assessment by pit appointment as an alternative to full psychiatric consultation

Collaborative 30-minute psychiatry consultations involving a family doctor, a psychiatrist, and a patient were rated as effective by participants and found to reduce wait times for mental health assessment at a university health clinic.

ABSTRACT

Background: **Wait times for psychiatric consultations are long, leaving many patients suffering and untreated. This was found to be a concern for students presenting with mental health issues to University Health Services at the University of Victoria, where the average wait time for a psychiatric consultation in 2013 was 43 days. In an effort to reduce wait times, University Health Services implemented a collaborative 30-minute assessment process inspired by Atul Gawande, who suggested that medical staff should function more like a pit crew in a car race when examining and treating patients. The pit appointment, developed by the Psychiatric Interdisciplinary Team Project, begins with the family doctor and psychiatrist meeting for 5 minutes; the family doctor reviews the case and the psychiatrist seeks clarification. The patient then joins them for the next 20 minutes and issues are explored, questions are posed, a diagnosis is discussed, and a treatment plan is made. During the last 5 minutes the psychiatrist leaves to complete the medical record for both physicians and the family doctor writes prescriptions and makes follow-up plans with the patient as needed. After the introduction of pit appointments in May 2014, the Psychiatric Interdisciplinary Team continued to define and refine the requirements and applications of the intervention at University Health Services and to incorporate suggestions from students and staff.**

Method: **In May 2015 data collection began for a study of pit appointments. Wait times were calculated for all students who attended a psychiatric consultation and/or a pit appointment between January 2013 and December 2016, allowing for analysis of both preimplementation and postimplementation data. Medical staff completed confidential interviews that were recorded, transcribed, and thematically analyzed. Both staff and students were surveyed about their experiences with pit appointments and their responses were reviewed and analyzed.**

Dr Thorpe was a psychiatrist at University Health Services and project lead for the Psychiatric Interdisciplinary Team (PIT) Project at the University of Victoria (UVic). She is now a clinical assistant professor in the Department of Psychiatry at the University of British Columbia and affiliate assistant professor at UVic. Ms Monkman is a PhD candidate in the School of Health Information Science at UVic and project manager for the PIT Project. Dr Singh was a resident in the Department of Psychiatry at the University of British Columbia when this article was written. Drs Felix and Hayes are family doctors and were mental health co-leads for the PIT Project. Dr Hayes is a clinical instructor in the Department of Family Practice at the University of British Columbia and an affiliate clinical instructor at UVic. Drs Borycki and Kushniruk are professors in the School of Health Information Science at UVic and co-investigators for the PIT Project. Dr Greiner is a data analyst for the PIT Project.

This article has been peer reviewed.

Results: **Wait times for 984 patient appointments (375 pit appointments and 609 full psychiatric consultations) were analyzed. Average wait times in 2016 were 10 days for a pit appointment, and 15 days for a consultation, a significant reduction from 43 days for a consultation in 2013. Surveys completed by 11 medical staff (psychiatrists and family doctors) and 38 students indicated the assessment process was effective, with 100% of psychiatrists and family doctors finding the intervention "somewhat helpful" or "very helpful" and 87% of students finding the intervention "somewhat helpful" or "very helpful."**

Conclusions: **Although there were several limitations to this study related to the evolving nature of the intervention and the lack of sufficient students responding to measure significance, pit appointments were found to be a cost-effective and efficient way to assess postsecondary students with mental health concerns. Potentially, this model could help many more patients receive treatment in a timely way, shorten wait times for full psychiatric consultations, lead to fewer patients requiring urgent mental health care in the emergency department, and provide a collaborative model appreciated by both psychiatrists and family doctors. Further research is needed to obtain standardized evidence of patient improvement and determine if pit appointments might be used in general practice and other clinical settings.**

Background

Atul Gawande's 2012 TED Talk about improving health care (How do we heal medicine?) proposes that medical staff should function like a pit crew in a car race, with each skilled crew member having a well-defined role and working quickly and collaboratively to enable the car to continue its journey.[1] This proposal is especially applicable to the 1 in 5 Canadians who develops a mental illness in their lifetime.[2]

Mental illness produces a tremendous burden in patient and family suffering, time lost at work, and costs of care. The economic burden of mental illness in Canada is estimated at $48 billion per year.[2] Between 25% and 50% of primary care patients have mental illness[3-6] and many patients have their first contact with the mental health system through the emergency department.[7]

Unmet needs

Despite the burden of mental illness, many Canadians do not receive any treatment at all.[2] According to the National Physician Survey, access to psychiatry services in Canada is an area of concern.[8] Wait times for psychiatric consultation are long. Traditionally, consultations have required that a patient, no matter how ill, go to a psychiatrist's office, and often there is a delay before the report on the consultation reaches the family doctor.

In a recent article about improving access to mental health care, David Gratzer and David Goldbloom recommend that psychiatrists "work more closely with family doctors, seeing their role not simply as consultants but also as educators and partners. . . . Collaborative care models are being tried across the country and are increasingly incorporated into resident teaching programs. Still, many psychiatrists and family doctors will not work in this formal structure, and stronger ties are needed."[9]

On postsecondary campuses, the mental health needs of many students remain unmet and the shortage of resources has been highlighted in the media.[10-12] Young people age 20 to 29 years have higher rates of mental illness and substance use disorders than any other age group.[2] Addressing mental health concerns in students is vital.[13] The 2013 Canadian reference group data report for the American College Health Association-National College Health Assessment II (ACHA-NCHA II)[14] found that many Canadian students reported suffering from anxiety (58%) and depressive feelings (35%) within the previous 12 months. However, only 13% reported receiving professional treatment for anxiety and 12% for depression.[14] Students at the University of Victoria reported similar rates of problematic symptoms and untreated illness in 2013.[15] Mental illness is highly detrimental to these young people, delaying or preventing their education, increasing student loan amounts, and potentially compromising students' abilities for successful futures. Timely care could treat illness faster, improve academic function and retention, and change the neurobiological course of illness in the young brain.[16]

Development of pit appointments

In 2013 the average wait time for a psychiatric consultation at University Health Services (UHS) at the University of Victoria (UVic) was 43 days. Inspired by Gawande's pit crew proposal,[1] the Psychiatric Interdisciplinary Team (PIT) Project (see www.pitproject.ca) set out to reduce long wait times for consultations and address the shortage of psychiatric resources.

During 2 weeks in March 2014 nearly a quarter of the patients seen by UHS family doctors (229 of 981) presented with mental health concerns. In April 2014 psychiatrists reviewed records for 24 psychiatric consultations that had been completed the previous month and determined that 12 patients (50%) had not required a full consultation. A psychiatrist and UHS family doctors then reviewed the records for 40 patients awaiting psychiatric consultation and agreed that 36 might be served by brief pit appointments. These 36 pit appointments were done in May 2014 and were deemed successful. Subsequently pit appointments were offered as an alternative to psychiatric consultation at UHS. Since the introduction of pit appointments, University Health Services staff have continued to define and refine the requirements and applications of the intervention and have incorporated suggestions from students and staff. Today, the clinical intervention that has resulted from the PIT Project begins after a patient has presented to UHS with mental health concerns. The family doctor determines if a pit appointment is appropriate, manages the patient's expectations by providing an information sheet (**Figure 1**), and then fills out a referral form (**Figure 2**). Some doctors find it useful to complete the form with the patient.

A pit appointment starts with a 5-minute meeting that allows the family doctor to review the case and the psychiatrist to seek clarification. The patient then joins the family doctor and the psychiatrist for a 20-minute meeting. The family doctor introduces the psychiatrist and gives a brief summary of what the psychiatrist has been told. The psychiatrist asks questions and explores issues, drilling down to clarify answers to the particular questions posed. A diagnosis and/or suggestions are made and a layperson's explanation is given. A plan is established. On rare occasions, if the psychiatrist is not immediately sure of next steps, written recommendations are provided within 24 hours and the family doctor informs the patient of these. Notably, if the next step is a full psychiatric consultation, an attempt is made to have the same psychiatrist do the consultation to provide continuity of care. During the final 5 minutes of the appointment, the psychiatrist leaves to complete the medical record for both physicians, and the family doctor outlines the plan with the patient, writing prescriptions and scheduling follow-up as needed.

Method

In May 2015 the PIT Project received funding from the Specialist Services Committee, one of four joint collaborative committees representing a partnership of Doctors of BC and the Ministry of Health. This funding was used to provide and evaluate services for students seeking treatment at UHS for mental health concerns (**Table 1**). After ethics approval was obtained from the UVic Human Research Ethics Board, data collection began and continued until December 2016.

Establishing wait times

Wait times were calculated for all students who received a consultation and/or a pit appointment between January 2013 and December 2016. Because pit appointments were introduced in May 2014, this allowed for the analysis of more than a year of preimplementation data and more than a year of postimplementation data. Wait times were determined by counting the days between the referral and appointment dates (i.e., for either psychiatric consultation or pit appointment).

Recording diagnostic information

Initially, diagnoses for patients seen by psychiatry were recorded using *DSM-IV-TR*[17] and *DSM-5*[18] definitions. Later, the reason for referral and whether the type of appointment given was deemed appropriate were also recorded.

Table 1. Diagnostic categories used for students seeking mental health care at University Health Services, University of Victoria.

Bipolar disorder
Pervasive developmental disorder
Anxiety disorder
Obsessive compulsive disorder
Personality disorder
Substance abuse (alcohol, prescription and street drugs)
Eating disorder
Adjustment disorder
Posttraumatic stress disorder
Sequelae of head injury
Depression
Attention deficit disorder
Psychosis (not yet diagnosed—first break) and schizophrenia
Physical disorder (e.g., hyperthyroidism)

Surveying medical staff and patients

To garner insight about the benefits and challenges of pit appointments from the care provider perspective, all clinic staff were invited to participate in confidential interviews during the development of the intervention. The interviews were recorded, transcribed, and thematically analyzed. During monthly team meetings and two annual clinic meetings, we reviewed our methods and adapted the assessment process to compensate for challenges as we acquired knowledge about this approach. After we refined

University of Victoria | Health Services

Pit Appointment Information Sheet

Your family doctor has decided it would be helpful for you to have a Pit Appointment – a brief consultation with both the family doctor and a psychiatrist.
This information sheet was developed to help you have a clear idea of what pit appointments are, what their limitations are, and what to expect during your pit appointment.

What is a Pit Appointment?

- A 30-minute appointment
- You and your doctor will get advice from a psychiatrist about your specific problem or issue.
- Due to time limitations:
  - The psychiatrist will only be able to address one problem
  - **IMPORTANT:** You and your doctor should have a clear goal set for the appointment. Examples include: help with diagnosis, new medication, treatment options

What a Pit Appointment is Not

- It is not a full psychiatric consultation. Often it is not necessary to consult with a psychiatrist again or on an ongoing basis.

What Happens During a Pit Appointment?

- Your doctor will give the psychiatrist a brief overview of your history and the challenge you are currently facing (approximately 5 minutes).
- Then, you will join your family doctor and psychiatrist (approximately 20 minutes).
  - The psychiatrist will ask you some questions.
  - You may also want to ask some questions.
- The psychiatrist will do his or her best to help. Usually this team of three comes up with a plan during the appointment. In some cases, the psychiatrist may not have a ready answer and may want to think it over and follow up with your family doctor later on.
- The psychiatrist will leave and your doctor will discuss how you and the family doctor will proceed (approximately 5 minutes).

What Happens After a Pit Appointment?

- Hopefully, you will have some new information, treatment options, or medication that will help you.
- Your care plan will incorporate the new information from this appointment.
- You will get follow up with your family doctor.

Figure 1. Information sheet provided to help patients understand what a pit appointment can and cannot accomplish.

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PIT / PSYCHIATRY REFERRAL FORM

Client Information	
Patient:	**DOB:**
PHN:	**Phone:**
Program:	**Year:**
Date of Referral:	**Referring Doctor:**

Reason for referral:

Details of illness/trouble:

While at UHS with the present illness, medications and therapies already tried, or being tried now:

Past psychiatric history (including medications and therapies):

Family psychiatric history:

Any physical illness or medications we need to consider:

Personal history of note:

Present life circumstances of note:

What is the referring doctor hoping for?

What is the patient hoping for?

Figure 2. Referral form used for pit appointment.

the intervention, clinic staff were surveyed anonymously for additional feedback.

To establish what patients thought of pit appointments, medical office assistants distributed flyers inviting students to participate in a survey.

Survey responses from medical staff and patients were reviewed and analyzed.

Pit honors the family physician–patient relationship while enhancing the family doctor's own skill set. It's a win-win.

Results

A total of 984 wait times (375 for pit appointments and 609 for consultations) were analyzed along with survey responses from 38 students (32 females, 6 males), average age 26.3 (SD 8.7) years. Interviews completed by 2 psychiatrists and 4 family doctors who participated in pit appointments were also analyzed, as were survey responses from 3 psychiatrists and 8 family doctors.

Wait times

Looking at the years before and after the introduction of pit appointments, wait times for a full psychiatric consultation decreased from 43 days in 2013 to 15 days in 2016, and wait times for a pit appointment averaged 10 days in 2016.

A factorial ANOVA was used to compare the main effects of appointment type (consultation or pit appointment) and year (2013, 2014, 2015, or 2016), and the interaction effect of appointment type by year on wait times. Overall, the main effect for appointment type ($F(1, 977) = 57.55$, $P < .001$), year ($F(3, 977) = 39.43$, $P < .001$), and the interaction between appointment type and year ($F(2, 977) = 9.27$, $P < .001$) were significant. On average, participants had shorter wait times measured in days for pit appointments (mean 10.8, SE 1.2) than for consultations (mean 28.8, SE 1.01), wait times on the whole decreased significantly between 2013 (mean 42.8, SE 1.6) and 2016 (mean 12.41, SD 1.3), and average wait times for consultation decreased at a faster rate between 2014 (mean 34.5, SE 1.8) and 2016 (mean 15.1, SE = 1.9) than did wait times for pit appointments between 2014 (mean 11.7, SE 2.4) and 2016 (mean 9.7, SE 1.9) (**Figure 3**).

Referral reasons

Diagnoses were not found to be significantly different when comparing patients assessed by pit appointment with those assessed by full psychiatric consultation. The average number of diagnoses for patients who had pit appointments (mean 1.55, SD 0.84) and consultations (mean 1.78, SD 0.90) were similar, with both falling between one and two. Diagnoses alone did not prove valuable for identifying patients best served by pit appointments. However, appropriate reasons for referring a patient for a pit

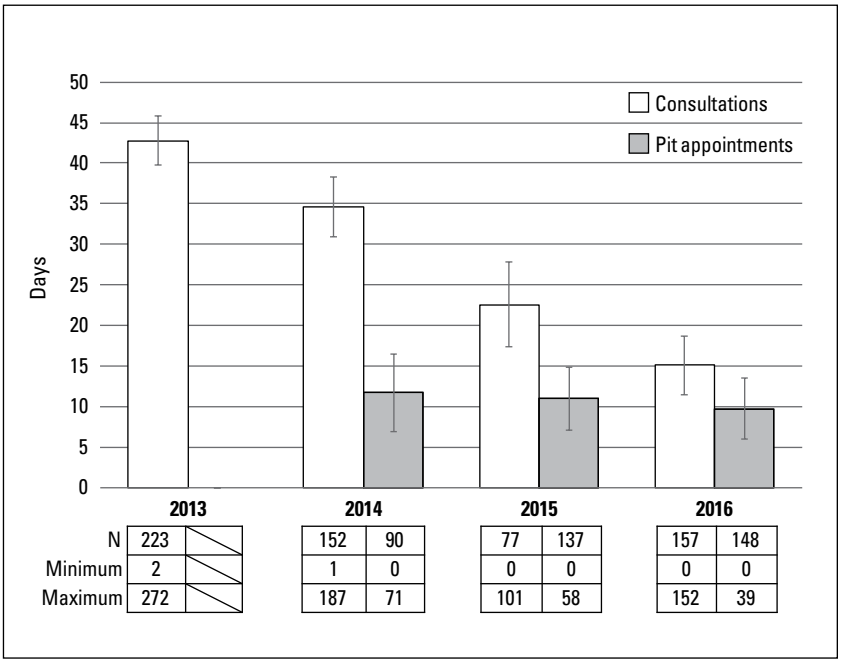

Figure 3. Average wait times for psychiatric consultations and pit appointments by year, 2013 to 2016 (pit appointments introduced in 2014).

appointment or a psychiatric consultation were identified in the course of the study as findings were monitored, refined, and shared among physicians and psychiatrists (**Table 2**).

Rating pit appointments

When rating pit appointments, 33 of 38 patients (87%) found their assessments "somewhat helpful" or "very helpful," while 27% of physicians found them "somewhat helpful" and 73% found them "very helpful."

A majority of patients agreed or strongly agreed with the following statements:

- I felt understood (32/42 = 76%).
- I felt more hopeful as I left (26/38 = 68%).
- I would recommend this type of appointment for someone with my trouble (30/40 = 75%).
- I had a good understanding of my treatment and support plan (34/44 = 77%).
- I received clear information about my medication (28/36 = 78%).
- The services I received have helped me deal more effectively with life's challenges (40/54 = 74%).

Conclusions

Survey and interview responses from psychiatrists, family doctors, and patients about the value of pit appointments were generally positive. Although challenges to wider implementation exist and further research is needed, study results suggest that pit appointments could be useful for other postsecondary institutions and family practices at large, and could result in more timely treatment and other benefits.

Psychiatrist comments

Interviews with UHS staff during the development of pit appointments revealed that psychiatrists and family doctors were not familiar with each other, and they described feeling like "being back in medical school" and performing under the scrutiny of a colleague. This quickly dissipated. As working relationships continued over time, trust and understanding developed and the ability of staff members to collaborate with each other and with patients was enhanced.

Psychiatrists found pit appointments preferable to consultations in the emergency department because of access to the family doctor's information about the patient and the patient's illness. Unlike emergency department assessments, pit appointments are not typically done in a crisis and this allows medical staff to gain a more coherent understanding of the patient's difficulties. The patient is also likely to be more forthcoming and less alarmed about being "sick enough to see a psychiatrist" during a pit appointment because it is held in a familiar place with a family doctor that the patient already knows and trusts participating in the assessment. There is also greater satisfaction for the psychiatrist, who knows that the patient will receive appropriate and immediate follow-up care.

One psychiatrist commented that the "fast" and intense 20 minutes with the patient requires the use of "clinical acumen, judgment, and experience toward what one sees and hears from the patient. Pit appointments rely on my complete knowledge in a whole new way."

Family doctor comments

Family doctors interviewed for the study commented that pit appointments lead to them feeling more competent and confident about mental health issues, various medications, and how to elicit information from patients. One respondent said that the usefulness of "watching a psychiatrist do a history can't be overstated in discussing pit benefits," and family doctors generally appreciated watching another clinician at work.

Family doctors also described acquiring increased capacity to identify characteristics of personality disorders and to elicit coping methods from patients that they can then expand upon.

One family doctor stated, "Pit often helps me answer and move forward

Table 2. Appropriate reasons for referral for pit appointment, for full psychiatric consultation, and for either.

	Reasons
Referral for pit appointment	• Medication question • Consultation wanted by community or patient, but not indicated • Triage for psychotherapy • Need to determine if case is being complicated by a personality disorder • Need to differentiate bipolar disorder from personality disorder • Need to determine if patient is on the right track with treatment
Referral for psychiatric consultation	• Psychosis indicated • Management needed for complicated affective disorder • Patient has long, complicated history and family doctor does not know where to start
Referral for either	• Recommendations needed for crisis management • Recommendations needed for case with potential medicolegal worries • Autism spectrum disorder suspected (patient tolerance specific)

with an issue that I'm stuck on with a patient. Instead of waiting months for direction or having a consult that misses the boat on the issue, I can use my knowledge and relationship with the patient to help guide a useful plan. In addition, seeing a psychiatric clinician conduct an interview builds my own capacity for interviewing skills. Pit honors the family physician–patient relationship while enhancing the family doctor's own skill set. It's a win-win."

Another stated, "Working in the pit has helped me hone my diagnostic acumen and confidence. The pit has empowered me to take the time necessary to understand each patient's symptoms in the context of unique life circumstances. As my skills have grown, I have felt more confident dealing with certain symptoms (e.g., emotional dysregulation). The pit normalizes collaboration, not only between practitioners, but with patients and practitioners. Knowing there is backup emboldens me to make sure patients are confident in their diagnosis and treatment plans."

Yet another family doctor commented on the advantages of collaboration: "I appreciate being able to ask the psychiatrist clarifying or follow-up questions in real time. I find I always discover new things about my patients, even those I think I know well, by observing the interview."

Patient comments

Students surveyed about their pit appointment experience made positive comments such as the following:

- "Because I was in a crisis . . . [I had a pit] instead of waiting for [a] consultation. I'm glad that they realized how important it was for me to start seeing someone immediately."
- "It really helped me to feel supported, as if there really is a team of doctors willing to help me."
- "It was nice that the referring physician had already briefed the psychiatrist regarding my condition and concerns."

Negative comments about pit appointments commonly focused on their brief nature (e.g., "short and rushed"). However, most students (18 of 23) preferred having a shorter wait for a pit appointment than having a longer wait for a full psychiatric consultation.

Pit appointment benefits and challenges

Pit appointments evolved from the grass roots wishes and needs of clinicians at UHS, which in turn meant staff provided significant support to the PIT Project and this permitted rapid initiation and integration of new ideas without the resistance sometimes encountered in an organization.

The dramatic reduction in wait times for psychiatric input has been very rewarding for both clinicians and patients.

In 2016 the National College Health Assessment for UVic[19] reported that the proportion of patients receiving professional treatment for anxiety was 30% (versus 14% in 2013[15]) and for depression the proportion was 16% (versus 11% in 2013[15]). It is possible that the lack of delay in scheduling appointments played a part in this, along with the fact that fewer "no shows" occurred compared with 2013 and fewer patients were "no longer interested" or "unable to be located" with the introduction of faster services.

The dramatic reduction in wait times for psychiatric input has been very rewarding for both clinicians and patients.

We believe pit appointments could benefit the community at large by helping more patients get help sooner. Fewer patients would need to use the emergency department. Fewer psychiatric consultations would be required and therefore wait lists would be shorter. The positive effects of family doctors learning from psychiatrists would also benefit other patients. In addition, the collaboration of family doctors and psychiatrists might inspire the development of new interventions.

Certainly this method of assessment is appreciated by medical staff at UHS and could support family doctors and psychiatrists developing the "stronger ties" recommended by Gratzer and Goldbloom.[9] Pit appointments allow psychiatrists to teach family doctors in real time with their own patients. Also, participating in

pit appointments could be appropriate for semi-retired psychiatrists or those with young families, since there is no ongoing responsibility for care.[20] Pit appointments could also allow the younger generation of psychiatrists interested in psychotherapy practices[21] to continue to participate in community assessments.

One challenge to the wider adoption of pit appointments is funding for family doctors, who typically do not have fee codes for shared care. In some provinces, two doctors are prohibited from billing for the same patient on the same day. While this is not an issue at UHS, where family doctors are on salary, it is an issue elsewhere and governments will need to consider alternative funding models to facilitate the use of pit appointments. Currently in BC, the fee billed by a psychiatrist doing a pit appointment is half that billed for a full psychiatric consultation and requires less documentation. Dealing with the funding challenge is worthwhile, however, given that pit appointments could be useful for other postsecondary institutions and family practices at large, and could result in more timely treatment, decreased length of psychiatric illness, improved lives of patients, fewer patients using the emergency department, and shorter wait times for those requiring full psychiatric consultations.

Limitations of study

The study was affected by a number of limitations, including the lack of measurement before and after pit appointments to provide standardized evidence of patient improvement. As well, students seeking treatment at UHS were approached to participate in the study through invitation flyers distributed by medical office assistants. While this preserved confidentiality and participant anonymity, it meant we could not identify all potential participants and were unable to obtain a reliable response rate.

In addition, our study was limited by the fact that pit appointments were evaluated in conjunction with other new mental health interventions at UHS, including the introduction of a full-time mental health nurse, on-site cognitive behavioral therapy, a set of Managing Emotions modules offered in semester blocks for students with dysregulated emotions, and a focus group for students with diabetes and mental health issues.[22] Survey respondents were asked to provide feedback on all types of mental health appointments they had attended at UHS, and many respondents who provided feedback had attended pit appointments weeks or months before completing the survey. With few participants having attended a pit appointment as their most recent UHS intervention, we were unable to provide reliable estimates of outcome measures.

Before the introduction of pit appointments, patients received one-time-only mental health appointments. Anecdotally, both psychiatrists and patients found one-time-only consultations unsatisfying, as patients had typically waited for an extended period hoping for longer-term treatment, which was not offered. No data about satisfaction with one-time-only psychiatry consultations were collected before pit implementation, nor could such data be found in the literature.

Pit appointments were introduced a year before any data collection began. By the time patients receiving psychiatric consultations were surveyed, they were by definition more severely ill or had more complicated illness and needed more than one session with a psychiatrist. Thus, patients who received consultations went on to receive more care and to develop a therapeutic relationship with the psychiatrist. This was not true for patients who received pit appointments and, therefore, a direct comparison between those who attended pit appointments and those who attended consultations would not be prudent, as the populations and treatments are now inherently different.

Further research

Further research is needed to determine if pit appointments can be used in diverse clinical settings, including general practice clinics. Research might also determine if pit appointments are useful only for young adults without long and complicated histories, even though psychiatrists working in emergency departments suggest this is unlikely, since they often see patients in need of medication suggestions who have deteriorated significantly while on psychiatry wait lists. As well, the study of more detailed performance indicators could elucidate the effectiveness of pit appointments, and the study of implementation in different clinical settings could establish how a clinic's culture influences the introduction of this intervention.

Summary

The collaborative pit appointment introduced at University Health Services in May 2014 was found to reduce wait times significantly for students with mental health concerns. Most psychiatrists, family doctors, and patients who participated made positive comments about the intervention. Pit appointments at UHS were deemed to be cost-effective and to increase the knowledge, abilities, and confidence of family doctors treating mental health disorders. BCMJ

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Competing interests

None declared.

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When patients choose to live at risk: What is an ethical approach to intervention?

A practical decision-making process can help clinicians intervene in an ethically justifiable way when patients put themselves or others at risk of harm.

ABSTRACT: Persons living at home or in care facilities may make choices that health care providers believe pose a risk of harm to themselves or others. Living at risk may include eating when aspiration is possible, living at home without adequate support, going on unsupervised outings, smoking around oxygen supplies, or refusing to use a walker needed to prevent falls. Deciding when and how to intervene in patients' choices can be challenging. In these complex situations health care providers can benefit from using a decision-making process that is informed by BC legislation (specifically the Mental Health Act and Adult Guardianship Act), a literature review, and an analysis based on the bioethical principles of respect for autonomy, nonmaleficence, beneficence, and justice. This process can be used to make ethically justifiable decisions about when and how to intervene when patients choose to live at risk, as illustrated by the fictionalized case of a residential care patient with cognitive impairment who wishes to go on unsupervised outings. While risk cannot be eliminated totally and is inherent in patient-centred care, energy should be directed to ensuring that risks of harm are reduced to a tolerable level.

This article has been peer reviewed.

When persons living at home or in care facilities (referred to here as "patients") choose to engage in activities that put themselves or others at risk of harm, health care providers must find approaches to support both patient autonomy and the safety of patients and others. This also applies when substitute decision-makers make choices on behalf of patients.

Determining when and how to intervene can be a complex task. A literature review carried out by the authors found that processes have been developed to address risky behaviors in specific locations (e.g., use of negotiated risk agreements in assisted living),[1] specific circumstances (e.g., choices of competent persons living at home),[2] and specific populations (e.g., those with mental health diag-

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noses).[3] However, this literature review did not identify an ethics-based approach that is practical, easy to use, and applicable to all patients and settings, as noted in a 2010 report calling for a decision-making tool that incorporates a framework and checklist of what clinicians should consider.[4] The ethical approach outlined below for managing patients choosing to live at risk aims to make a contribution to this important literature.

Living at risk

Living at risk is defined as acting in a way that impacts the person (risk to self) or others (risk to others) in physical, emotional, or psychological ways. This may involve a wide variety of activities such as eating when at risk of aspiration, living at home without adequate support, going on unsupervised outings, smoking around oxygen supplies, or refusing to use a walker needed to prevent falls. Cases such as the fictionalized one that follows arise on a regular basis.

Jahal is a 64-year-old with a history of homelessness, cognitive impairment affecting short-term memory, and depression. She was recently placed in residential care and has adapted to her new environment. However, Jahal likes to go on long walks and this is causing her care providers concern. When they attempt to keep her in the facility, she becomes agitated and lashes out verbally and physically. Once she knocked down another resident while trying to leave the facility. Jahal generally manages on her walks, although she has fallen a few times and on one occasion was returned by police when a store owner reported her sitting on a bench outside for several hours.

These kinds of cases are complex for a number of reasons:

- In Western society, respect for autonomy is considered a primary bioethical principle. Any intervention contrary to the patient's wishes must be justified.[5,6]
- Not all patients who have cognitive deficits or mental illness are incapable of decision-making. Assessment of the capacity of a patient to understand and assume risks can take time, involve judgment, and require a large interdisciplinary team.[7]
- Determining whether a given risk is "too risky" is a challenge in terms of defining parameters, setting aside personal biases, and striving for objectivity.[7]
- Health care providers are trained to place a premium on patient safety and may struggle with allowing someone to live at risk.[6] They may also find it challenging to view risk taking as making a positive contribution to quality of life.[4]
- Harming patients is contrary to the codes of ethics of health professions and contrary to the bioethical principle of non-maleficence. Health care providers may believe that they contribute to harm by allowing a patient to take risks or by participating themselves in a risk activity (e.g., by feeding a patient who has swallowing difficulties).[2]
- There may be legal implications if patients are permitted to engage in risk activities and they or others are harmed. Tools that are developed to address risk may be construed as intended primarily to protect facilities.[1]

If a decision is made to override the patient's wishes, the onus is on health care providers to justify this decision.

So how can complex cases involving risks be evaluated using an ethical approach?

Decision-making process

Health care providers can benefit from using a practical decision-making process that is informed by BC legislation, a literature review, and the bioethical principles of respect for autonomy, non-maleficence, beneficence, and justice. The main features of the decision-making process are described below and in the **Figure**. The timing of steps may be adjusted (e.g., determining patient capacity may occur earlier than suggested), but whatever the timing, each step must be completed before coming to a decision.

The team making the decision will consist of those who work with and

know the patient, such as a physician, nurse practitioner, nurse, occupational therapist, social worker, and care aide, and will include the patient or substitute decision-maker and family members as appropriate.

The BC Mental Health Act[8] and Adult Guardianship Act[9] may apply to persons who are at risk to themselves or others. If either Act is applicable to the situation at hand, it should be taken into account. Even when this legislation is relevant, however, the proposed ethical analysis and process may prove useful in any approach taken to address risk.

Evaluating and assessing risk

In the interests of respecting patient autonomy, the process begins by considering the patient's wishes and how

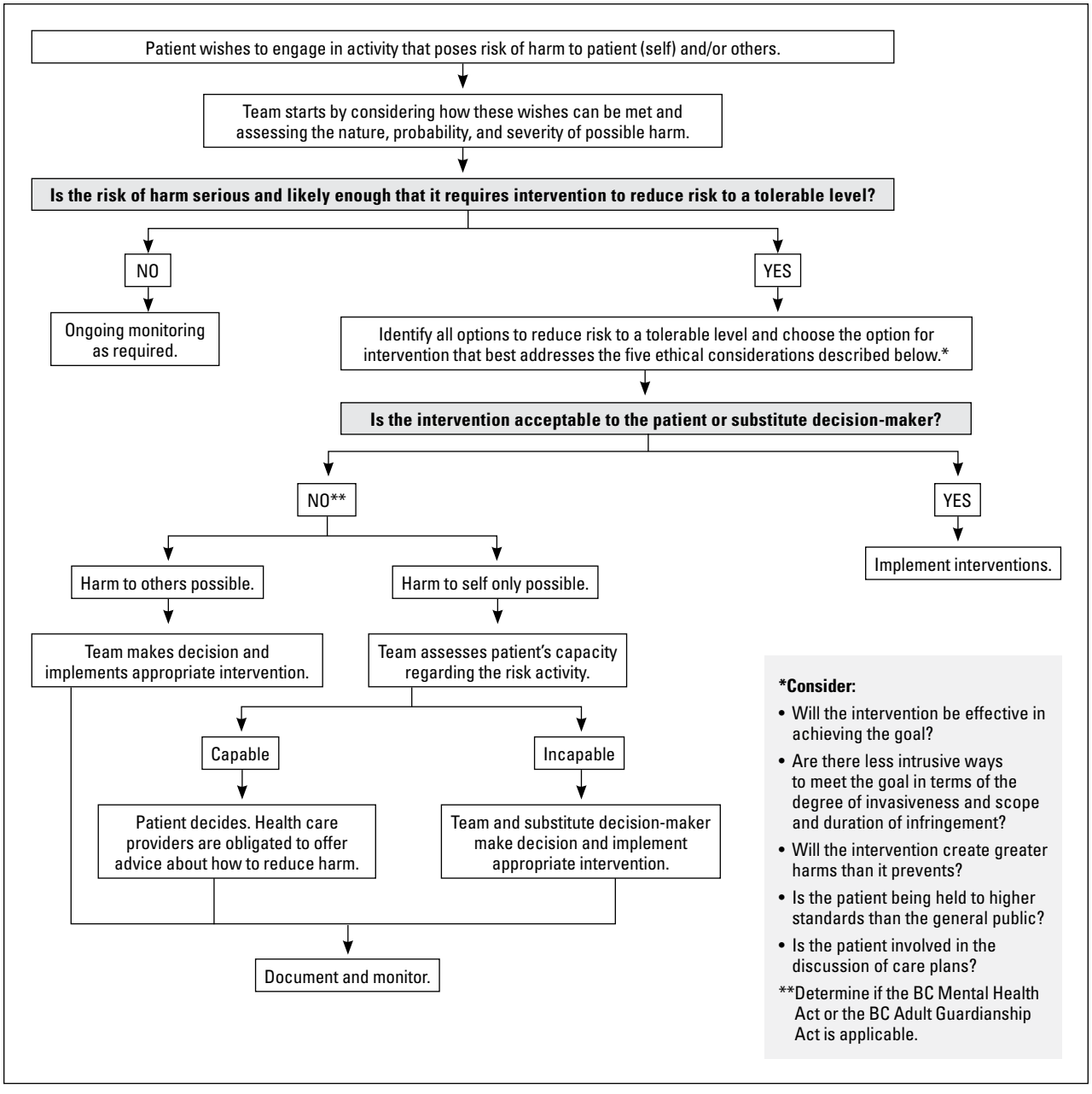

Figure. An ethical approach to managing patients choosing to live at risk.

these can be met in relation to the patient's life context, goals, and values. If a decision is made to override the patient's wishes, the onus is on health care providers to justify this decision.

The team starts by assessing the risk activity in question and establishing the nature of the possible harm (physical, emotional, or psychological) and the probability and severity of the harm. Harm can be serious, permanent, and likely, or it can be not serious, not permanent, and not likely and can range through various degrees of seriousness, duration, and likelihood.[10] Those assessing risk should be aware of their own personal biases and tolerance for risk, and should use objective and reliable evidence, eschewing speculation and emotion, and ensuring that the activity is actually harmful rather than merely offensive.

After evaluating the risk activity, the team must decide if intervention is required. To trigger intervention, risk should be significant: that is, not a risk that is highly likely but with minor effect or a risk with major effect but so unlikely as to be merely theoretical. The goal is not to remove all risk but to achieve a tolerable level of risk. Risk can never be totally eliminated and all persons choose to live with some degree of risk.[3]

Addressing tolerable and intolerable risk

If risk is deemed to be tolerable, no further action is needed beyond monitoring. If the risk is deemed intolerable and intervention is required, all options should be explored by the team and patient or substitute decision-maker as appropriate, even when some options may seem extraordinary, outside standard budgets, or controversial.

Options should be considered based on whether they satisfy the principles at the heart of an ethical approach.[11] The intervention must:

1. Be effective (i.e., satisfy the principle of respect for autonomy). Ask: Is the goal of the intervention clear, and if it does infringe on the patient's autonomy will it achieve the goal? For example, will use of bed rails prevent falls or might they be ineffective or even increase risk?
2. Be least intrusive (i.e., satisfy the principle of respect for autonomy). Ask: Are there less intrusive ways to meet the goal? For example, is a wheelchair essential or would a walker be adequate to reduce risk of falls?
3. Not cause greater harm than it prevents (i.e., satisfy the principles of non-maleficence and beneficence). Ask: Are the potential harms of the intervention greater than the potential harms of the risk activity itself? For example, will restricting a resident to a wheelchair to reduce falls lead to depression and lower quality of life?
4. Be nondiscriminatory (i.e., satisfy the principle of justice). Ask: Is the patient being held to a higher standard than similarly situated members of the public? For example, should a patient at high risk of falls who can make capable decisions for herself be allowed to reject the use of assistive devices as would an individual living at home?
5. Be fair (i.e., satisfy the principle of justice). Ask: Should the patient be involved in the discussions about the care plan and if not, why not? For example, should a patient incapable of understanding the risk posed by smoking around oxygen supplies be involved in the discussion?

Establishing patient capacity

If the patient or substitute decision-maker agrees to the proposed intervention, it can be implemented. If the patient rejects the intervention, the team must establish whether the risk activity poses a risk only to the patient or to others as well. If the risk poses harm to others, the risks must be reduced to a tolerable level regardless of patient context or capacity as intolerable risk to others is never acceptable.

If the activity poses a risk solely to the patient, patient capacity needs to be established regarding the activity in question. This involves assessing the patient's ability to:

- Understand the nature, degree, and consequences of the risk.
- Demonstrate preferences.
- Act free of undue influence.

If the patient is clearly capable or clearly incapable (e.g., has significant cognitive impairment), a formal capacity assessment may not be necessary. If there is uncertainty about capacity, however, the patient's interest is best served by determining capacity for the particular activity or decision.

Capable patients have the right to make decisions for themselves. Teams are obliged to advise the patient how to reduce risks and may coax, persuade, or possibly offer incentives, but a capable patient must never be forced to accept interventions. If a patient is incapable, the team and substitute decision-makers should consider the patient's current choices and previous capable wishes and values when making a decision. Whenever possible, the patient should think the intervention is reasonable.

Implementing the decision

Finally, in deciding whether to intervene in a patient's risk activities, health care providers often worry about legal liability. Completing a rigorous ethical process that comes to a thoughtful, collective decision that can be justified does not eliminate the

risk to the patient or the possibility of legal action, but such an analysis is often central to risk management. It is always advisable to check with a physician's insurer or a facility risk manager with details of a specific case.

The team should agree to follow the care plan so that the patient receives consistent care, and the care plan should be documented and revisited when the patient's condition changes.

Application of ethical considerations

Despite the complexity involved when choosing the most appropriate intervention, a well-considered, ethically justifiable course of action must be taken. Failing to intervene is unjust because it leaves patients responsible for choices they may not be capable of making or allows health care providers to act on their own biases or fears.

In the fictional case described above, what should be done about Jahal's wish to go on outings from the facility? Confining an ambulatory patient to a locked unit will almost certainly cause emotional harm, and others may be harmed by a resulting increase in physical aggression. With the aim of honoring Jahal's wishes, the team should develop a plan for walks that reduces risk of harms to a tolerable level. Options include:

- Taking Jahal's photograph before she goes out so that police will have this information if needed.
- Providing her with ID, a cellphone, and a GPS bracelet.
- Setting times when the team will call police if she has not returned.
- Giving her supplies to support her well-being, such as a sweater and snacks.

Although Jahal is unlikely to understand the risks posed by her walks and is incapable in this regard, if she accepts the team's interventions for making the risk tolerable a formal assessment of capacity is not necessarily needed. A trial of these interventions can be undertaken and, if incidents occur, the plan can be revised to further reduce risks.

Summary

When persons living at home or in care facilities choose to engage in activities that put themselves or others at risk of harm, health care providers must find approaches to support both patient autonomy and the safety of patients and others. Living at risk is best addressed by analyzing the risks involved, considering all options available to reduce risks to a tolerable level, and implementing interventions based on the ethical principles of respect for autonomy, nonmaleficence, beneficence, and justice. Risk can never be totally eliminated and all persons choose to live with some degree of risk. When health care providers support patients who choose to live at risk, a terrible outcome, including death, may occur. While this must be acknowledged as a risk inherent in patient-centred care, energy should be directed to ensuring that risks of harm are reduced to a tolerable level. BCMJ

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Competing interests

None declared.

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Methicillin-resistant *Staphylococcus aureus* (MRSA)—changing epidemiology and workplace considerations

Until the mid-2000s, methicillin-resistant *Staphylococcus aureus* (MRSA) infections were predominately hospital acquired (HA-MRSA) and seen mainly in patients and health care personnel. However, since 2005, community-acquired MRSA (CA-MRSA) infections—a different genotype from HA-MRSA—have increased dramatically in BC.[1-3] Recent annual surveillance data indicate that CA-MRSA accounted for about 25% of MRSA in BC, with the remainder mostly HA-MRSA.[2] Therefore, acquisition of MRSA in both occupational and non-occupational (community) settings should be considered, including in health care workers.

One-third of the population is estimated to be asymptomatic carriers of *staphylococcus aureus*, with MRSA nasal carriage estimated from 0% to 8%, varying by population, geography, and region.[1,2,4,5] MRSA is not reportable in BC.[6]

HA-MRSA can be distinguished from CA-MRSA based on genetic, epidemiologic, or microbiological profiles.[3] Three genotypes of MRSA account for 90% of all genotypes throughout Canada.[1,2] MRSA-2 is usually associated with HA-MRSA; MRSA-7 and MRSA-10 are usually associated with CA-MRSA. A third grouping of MRSA, called livestock-acquired MRSA (LA-MRSA), has been recently identified in Canada and can potentially affect livestock workers,[7] but to date, no known human infections have been associated with these strains in BC (written communication with D.M. Patrick and L.M. Hoang, BC Centre for Disease Control, 2 February 2018).

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

Known reservoirs for *staphylococcus aureus* are humans and livestock, and survival outside of the host is highly variable—ranging from 30 minutes to 60 days.[8] The incubation period is variable and indefinite—ranging from 1 to 10 days for infection to develop once it enters compromised skin or mucous membrane. The communicable period is as long as a purulent lesion is present or carrier state persists.[8,9] With respect to HA-MRSA, both MRSA-carrier and/or infected patients and health care workers can act as vectors for transmission in hospital settings, with hands being the most important means of transmission. HA-MRSA risk factors for patients include hospitalization, surgery, or dialysis in the past 12 months; presence of an indwelling catheter; and residence in a long-term care home.[3,6,8-11]

Although anyone can acquire CA-MRSA, populations at increased risk include those with risk factors summarized as the 5Cs: crowding, frequent skin contact, compromised skin, sharing contaminated personal items, and lack of cleanliness.[4,6,8,10,11] These factors may also need to be considered in certain workplaces, such as child care services, military living quarters, or shelters.

In a health care worker with a confirmed MRSA infection, work circumstances, possible direct contact or exposure to an infected patient, and incubation period, along with the risk factors outlined above, are considered by WorkSafeBC when adjudicating a claim.

HA-MRSA results in respiratory tract, urinary tract, bloodstream, and postsurgical infections, whereas CA-MRSA predominantly causes skin and soft tissue infections such as furuncles, carbuncles, or abscesses.[3,6,10]

Management of HA-MRSA and CA-MRSA is based on clinical presentation. Physicians can refer to the BCCDC and IDSA Guidelines for both management and exposure control for HA-and CA-MRSA carriers and those with clinical infection.[6,12] MRSA bacteria is resistant to ß-lactam agents, including cephalosporins and carbapenems. After treating active infections and reinforcing hygiene and appropriate wound care, decolonization is not usually required in carriers but may be considered for those with recurrent skin and soft tissue infections or ongoing transmission among household members or close contacts, or for colonized health care workers who have been identified as likely sources of transmission.[4,6,12]

Unless directed by a health care provider or an employer's infection control policy, workers with MRSA infections should not be routinely excluded from going to work. Exclusion should be reserved for those with wound drainage that cannot be properly covered and contained with a clean, dry bandage, and for those who cannot maintain good hygiene practices. Workers with active infections should be excluded from activities where skin-to-skin contact with the affected skin area is likely to occur until their infections are healed.[4]

If you require further information regarding an MRSA claim, contact the Occupational Disease Services Client Services Manager at 604 231-8842.

—Olivia Sampson, MD, CCFP, MPH, FRCPC, ABPM
—Lorri Galbraith, MD, MScOH, FCBOM, CIME
WorkSafeBC Medical Advisors, Occupational Disease Services

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An open, online survey of family physicians on the impact of the standard on the Safe Prescribing of Drugs with Potential for Misuse/Diversion issued by the College of Physicians and Surgeons of British Columbia on managing pain

British Columbia declared a public health emergency in April 2016 following a sharp rise in opioid-related deaths due to adulteration of street drugs with imported illicit fentanyl.[1] The College of Physicians and Surgeons of BC endorsed the US Centers for Disease Control Guideline for Prescribing Opioids for Chronic Pain (CDC guideline)[2] in April 2016, and in June 2016, published a prescribing standard[3] that reflected the 12 CDC guideline recommendations. Much of the standard is considered typical best practice for prescribing substances with the potential for addiction and diversion. One contentious part of the standard is that doses above 50 morphine milligram equivalents (MME) "warrant careful reassessment and documentation" and doses above 90 MME "warrant substantive evidence of exceptional need and benefit." This standard and guideline are similar to the national guideline[4] that was updated in 2017, but lacked guidance that a taper could be stopped if the patient's function declined or significant pain persisted.

An open, online anonymous survey of BC family physicians was used to assess how they responded to the standard and how patients were doing as a result. Physicians were also asked about substance abuse, mental illness, and nonpharmacologic pain management resources in their community. After 4 months, 198 complete responses were received.

Eighty-eight percent of respondents had read the College's standard. Twenty-four had not read the standard, and ten of those reported that the standard had no impact on their prescribing. Those who had read the standard were more likely to reduce dosages over 50 MME and 90 MME and were significantly more likely to stop prescribing opioids for chronic noncancer pain ($p < .001$). They were also significantly more likely to reduce opioids in those with active cancer or palliative care situations, which were excluded from the standard in its first revision.

Respondents were asked if patients had increased function, reduced function, or had more pain after a taper or discontinuation of their opioid as part of meeting the standard. The results about function were divided with 44% reporting increased function and 56% reporting decreased function. However, 79% of respondents reported that patients had more pain as a result of tapering or stopping opioids.

If respondents had noticed decreased function or increased pain they were asked about their subsequent actions. Most noted they had resorted to other medications such as NSAIDS or neuropathic adjuvant medications, although a number of respondents noted that these were already maximized or had been trialed before. The most frequent response from the 78 comments was that they halted the taper or went back to the most effective dose. Many reported significant stress from long conversations, ruptured physician-patient relationships, and lack of alternative therapies that the patient could access due to availability or affordability.

Respondents who work as generalist family physicians, who did not have extra education in substance abuse or mental health, were most likely to be concerned about scrutiny of their prescribing ($p = 0.001$). Those who graduated after the year 2000 were more likely to be concerned about scrutiny but not more likely to stop prescribing ($p = 0.03$). Interestingly, those who finished medical school prior to 2000 had rather opposite approaches, where they more frequently answered "not at all concerned" or "so concerned that they were reducing and stopping their prescribing." Those who had extra pain education continued to be concerned about prescribing even if they did not see many pain patients.

Respondents were asked how the College could be more helpful to them in managing patients' pain and almost every respondent registered a comment. Sixteen felt the current guideline and approach to prescription review should be continued. The most common comment was that a more collaborative, educational, and less-judgmental approach would be helpful. The second most common comment suggested the College should play an advocacy role for more and timely access to multidisciplinary pain clinics and affordable nonpharmacological therapies for pain. Many noted that they had few options to offer patients as they had maximized

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non-opioid therapies and there was a lack of nonpharmacological therapies their patients could access and/or afford.

Four respondents reported that they knew patients who had gone to the streets for opioids and had died from an overdose. Two seemed to be a patient or former patient of the physician-survey participant. Another death was reported by a substance abuse physician and another by a physician in a smaller community. The reason given for the use of illicit opioids seemed to be that patients could not tolerate a reduction in their opioid dose and had either been cut off abruptly or tapered rapidly enough that they sought illicit medications.

This study shows that despite the intention to reduce harm from opioids, the standard is causing collateral damage to patients with chronic pain, and to a lesser degree to patients with cancer pain or those receiving palliative care. Physicians' interpretations of the standard seem highly influenced by their perceived relationship with the College and a more collaborative approach to safe prescribing is recommended by respondents. For physicians to manage chronic pain with less dependence on opioids, there is a clear need for greater access to nonpharmacological therapies, funding of alternative medications, and timely access to multidisciplinary clinics.

—Romayne Gallagher, MD
Chair, Geriatrics and Palliative Care Committee

A full report on this survey is available from the author (rgallagher@providencehealth.bc.ca).

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Dr John Harford Harland 1923–2018

Dr John Harford Harland was born on 8 May 1923 in Belfast, Northern Ireland, to a well-known Ulster family.

One brother, Robert Wallace Harland, OBE, PhD, was director of student health services at Queen's University for many years. The other twin, Dr William Arthur Harland, was regius professor at the University of Glasgow from 1974 to 1985. Their mother, Elizabeth, was one of the earliest medical graduates at Queen's University. She served 6 years after graduation in India as an obstetrical medical missionary. On returning to Belfast she married, practised medicine as a GP in Belfast, and started a family.

John developed a strong interest in tall sailing ships and sailors at a young age and enjoyed visiting the Belfast docks with his father and making ship models at home. John did well in school because he was so focused and good in languages and calculus, and he was also a terrific reader with a great memory. At Queen's University he decided to take medicine and enrolled in 1939. After completing his first 2 years he volunteered for the Royal Navy.

For the next 4 years, as a sublieutenant he worked on coal-burning mine sweepers, and then he sailed/ferried motor fishing vessels from West Africa to Cape Town, where he was stationed at the Naval Air Station. In Cape Town he commanded small fast gunboats with a crew of 14 to patrol and protect allied shipping. These boats were well armed and had depth charges, too. At the end of the war he was promoted to lieutenant then returned to medical school and graduated in 1949 as a doctor.

After graduation he married Janet Morrison, a nurse from Glasgow. In 1951 they immigrated to Kamloops where he worked as a GP. Shortly after he decided to become an anesthetist and trained for his fellowship at Vancouver General Hospital, University Hospital in Saskatoon, and Duke University in Durham, North Carolina. In 1960 he and Janet decided to move to Kelowna where John joined the Underhill Clinic as a GP and an anesthesiologist at Kelowna General Hospital. He retired in 1986 from the Department of Anesthesia.

When he left the navy John developed an interest in maritime history, languages, and writing. John read German and spoke French and Norwegian. His research took him seamlessly into the modern computer and its ramifications and desktop publications. John wrote many articles for the *Mariner's Mirror* and the *Nautical Research Journal*. His books on maritime history are well written, the illustrations are superb, and the details meticulous:

- *Seamanship in the Age of Sail: An Account of the Shiphandling of the Sailing Man-of-war, 1600-1860, Based on Contemporary Sources* (illustrated by Mark Myers)
- *Catchers and Corvettes. The Steam Whalecatcher in Peace and War, 1860-1960*
- *Ships and Seamanship: The Maritime Prints of J.J. Baugean*
- *Capstans and Windlasses: An Illustrated History of Their Use at Sea*
- *Anatomy of the Ship: The Flower Class Corvette Agassiz* (with John McKay)
- *Fireship: The Terror Weapon of the Age of Sail* (by Peter Kirsch, translated from German by John Harland)

On 10 April 2017 John was presented with the SS *Beaver* Medal by the Maritime Museum of BC. He was recognized for his internationally respected maritime publications. John has donated his entire library of books to the Naval Marine Archive, Canadian Collection, in Ontario.

John was a precise man and left-brained too. Janet is just as smart but more right-brained. Janet carried life's melodies while John carried the rhythm and the measured beat. While John was working, writing, and sailing on Kelowna's Okanagan Lake with the kids, Janet became a multitalented wife, mother, and

Recently deceased physicians

If a BC physician you knew well is recently deceased, consider submitting a piece for our obituaries 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.

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grandmother. While she was totally supportive of the family, she made time to serve on the Kelowna School and College Boards. Together they traveled the world in retirement.

John leaves three children, Jack, Jan, and Christine; grandchildren, Ian, Matthew, Christina, and Jillian; and three great-grandchildren, Harlow, Stevie, and Leo.

—Sterling Haynes, MD
Kelowna

Dr Kathleen Wilson (Johnston) 1948–2017

Dr Katie Wilson died on 13 November 2017, having been diagnosed 8 months earlier with acute myeloid leukemia.

Katie was born in Belfast, Northern Ireland, in 1948. Her father was a farmer and her mother a nurse. After starting her schooling in a one-room school close to the family farm, she enrolled at the Rainey Endowed School in the nearest town, Magherafelt. She excelled at school and in her final year was made head girl, played field hockey for the first 11, and was leading lady in the school opera. Katie entered the Faculty of Medicine at Queen's University Belfast in 1967. She took full advantage of university life, again playing field hockey and singing in the prestigious Royal Victoria Hospital Choir. Katie graduated in 1973 and began a junior house officer's job in Craigavon Hospital. It was quite a year, as this was at the height of the "troubles" in Northern Ireland, and Craigavon was situated at the head of an area known locally as Murder Triangle. The hospital was continually filling up with gunshot-wound and bomb-blast victims, which made for a unique and challenging training experience.

Katie and her husband Billy moved to Winnipeg in 1975. This was in no small measure due to the allure of a more peaceful life in Canada. In Winnipeg she worked in general practice at "Klinic with a K" serving the downtown core area of the city. During that time she had her first son, Samuel. In 1979, Katie moved with her family to Chilliwack, BC, and soon after she gave birth to her second son, Edward. Katie then took a 4-year leave from her medical practice to get her young family on a solid footing. When she returned to general practice she noticed a dearth of services in the community for the frail elderly. She therefore enrolled in a fellowship in geriatrics at the University of British Columbia, following which she returned to Chilliwack, where she became the de facto geriatrician for the upper Fraser Valley area of the province. For many years Katie gave of herself unsparingly to the elderly of the area. In 2008, she received with pride the Above and Beyond Award from the Fraser Valley Health Region. She was also proud of Netcare, a multidisciplinary day-care centre for the elderly that she helped to establish.

Katie retired in 2014 and enjoyed spending her time with her four grandchildren, gardening, cooking, traveling, and relaxing at her cottage on Savary Island.

She will be sorely missed by family, friends, and former colleagues and patients.

—William G. Johnston, MB, FRCS
Chilliwack

Division-led school clinics improve access to care for students around the province

The concept of students being "sent to the school nurse" when feeling unwell is ubiquitous in popular culture. The reality in BC schools is much different—while health authorities coordinate school- and community-based public health services like immunizations, health education, and health promotion initiatives,[1] most students don't have access to in-school health care services on a regular basis.

Statistics show that as many as 60% of youth who are worried about a health issue do not consult a health care provider and avoid going to a doctor's office.[2] This may be due to barriers like transportation challenges for rural students and the universal challenge of needing to miss class in order to attend a doctor's appointment during regular office hours.

Recognizing the challenges faced by students around the province in accessing primary care, four divisions of family practice have partnered with local health care stakeholders (often through Child and Youth Mental Health and Substance Use local action teams), school administrators, and students to create accessible clinics in local high schools. These clinics give students barrier-free access to birth control, STI testing, mental health support, and lifestyle counseling from teams of providers that can include doctors, public health nurses, social workers, and counselors. Care models at these clinics provide a useful example of how health care teams can address gaps in care and provide full-spectrum care for vulnerable populations.

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

Nanaimo

In partnership with Island Health, the Nanaimo Ladysmith School District, and other community agencies,[3] the Nanaimo Division of Family Practice opened the first division-organized school clinic at John Barsby Secondary School in 2016. The clinic's care team includes doctors, public health nurses, and child and youth clinical counselors. The clinic enables students to access primary care in a confidential, safe, familiar setting, without leaving school grounds. Students can make an appointment (or walk in) to address any issue—from an injury to sexual health—and clinic staff bring together additional supports for teens at risk and with vulnerabilities, such as those facing complex social situations (e.g., poverty) or an unstable family life.

Following the success of the clinic model at John Barsby, the division and its community partners opened a second school clinic, the Nanaimo District Secondary School Wellness Centre in September 2016.

Northern Interior Rural

Barriers to accessing care have had a negative impact on health outcomes for youth in Vanderhoof; there, students have experienced increased rates of teen pregnancy and sexually transmitted infections and face challenges connecting with local mental health resources. To improve health outcomes for these students, the Northern Interior Rural Division

Continued on page 324

and its partners created the Nechako Valley Secondary School Clinic, at which six family doctors have been providing weekly clinics since January 2018.

Shuswap North Okanagan

According to school district data, 20% of students at Salmon Arm Secondary rely on school buses to get to school,[4] meaning that at least one in five students would need to skip school in order to attend a doctor's appointment during clinic hours. To eliminate this barrier to care, the Shuswap North Okanagan Division and its partners worked to open a new wellness centre on campus, providing care 1 day per week from a health care team that includes a family doctor, nurses, and counselors. A student council was created to guide the planning process, ensuring that youth had a say in determining which services were needed most, how best to deliver them, and how to make the clinic accessible and teen-friendly.

South Island

In 2016, the South Island Division participated in the creation of three school-based clinics—Belmont Secondary Wellness Centre, Royal Bay Secondary School Clinic, and Edward Milne Community School Clinic—with help from the Sooke/West Shore local action team. Key partners included Island Health, School District 62, school principals and staff, and public health staff. Student input and engagement were a major focus in the creation of all three clinics, with the formation of youth health committees to determine what the clinics look like and what services they offer. The school clinics are complemented by a community-based youth clinic for youth who feel there are still barriers (i.e., stigma and anonymity) at the school-based clinics.

Belmont Secondary Wellness Centre was initially planned as a nurse-managed wellness centre. Support from the division and the local action team enabled physician services to be added to the centre, meaning students can now receive full-spectrum care.

Royal Bay Secondary School Clinic provides services from a team of health care providers and incorporates a youth sexual health ambassador role. In addition to informing clinic services, the clinic's youth health committee meets twice a month with the local action team engagement coordinator to discuss ways to promote the clinic's use.

Edward Milne Community School Clinic offers family physician services half a day per week with three local physicians sharing the role with support from a medical office assistant provided by Island Health.

For more detailed information on the team-based care models and partnerships involved in these division-organized school-based clinics, visit www.divisionsbc.ca/provincial/schoolbasedclinics.

—Afsaneh Moradi
Acting Director, Community Partnership and Integration, Doctors of BC

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Has kratom come to BC?

Calls to the BC Drug and Poison Information Centre, 2013–2017

Kratom (*Mitragyna speciosa*) is a plant indigenous to Southeast Asia known for dual therapeutic and toxic properties: at low doses it acts as a stimulant while at higher doses it activates opioid receptors.[1] The use of kratom in North America has been documented only in recent decades.[2,3] In Canada, kratom is a relatively new psychoactive substance, which has not been licensed for human consumption and has been seized from outlets that were selling it as such.[4]

We performed a descriptive analysis of kratom exposure calls received from 2013–2017 at the BC Drug and Poison Information Centre (DPIC), extracting data from mandatory coded fields and case histories in DPIC's call database.

We identified 15 calls involving exposure to kratom. Six were received from the Interior Health Authority, none from Northern Health, and three each from Vancouver Coastal, Fraser, and Island Health. Kratom-related calls increased in number from 2014–2017 (**Figure 1**). Physicians made up 80% of callers, unusual as the proportion of calls to DPIC from physicians about exposure to other psychoactive substances is much lower. All call subjects were adults, with a median age of 25 years; 60% were men.

The Internet, friends, and local distributors were mentioned as procurement sources. Kratom was used for various reasons, including recreational (for its psychoactive effects), pain relief, and opioid withdrawal. Kratom was ingested as powder, root, leaf, tea, capsule, supplement, and liquid extract. One-third of calls reported coexposures including supplements such as phenibut, 5-HTP, L-tyrosine, all used for anxiety and insomnia, other natural products (Maca root), opium poppy tea, alcohol, marijuana, amphetamines, and anxiolytics.

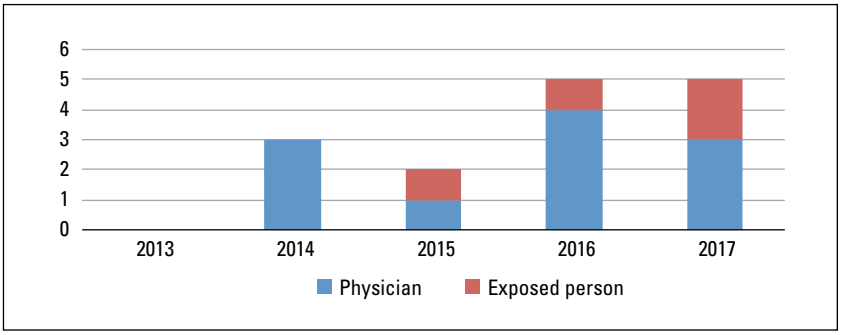

Figure 1. Kratom exposure calls 2013–2017 by caller type (n = 15).

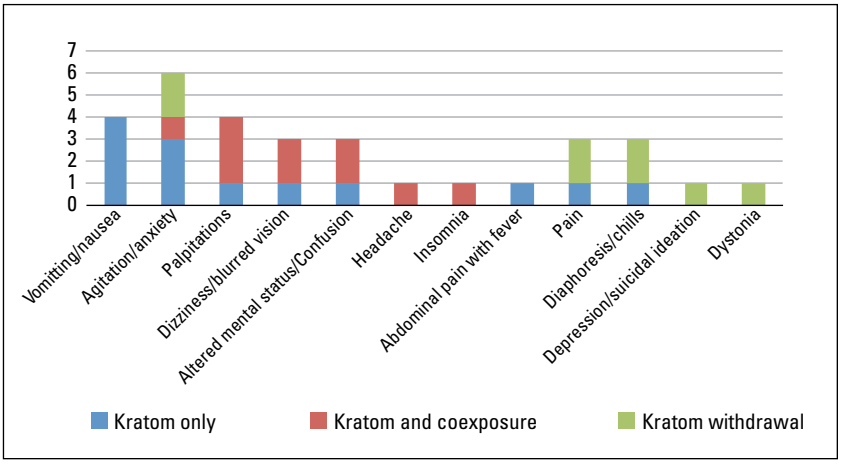

Figure 2. Symptoms documented in kratom-only exposures, kratom with coexposures, and kratom withdrawal (n = 14).

Call subjects were considered to have had minor or moderate clinical outcomes. Supportive treatments following kratom exposure included adenosine for tachycardia, benzodiazepines for anxiety/agitation, and antipsychotics for psychosis. Benzodiazepines were used in the treatment of kratom withdrawal, and one patient was sedated and intubated due to extreme agitation.

Of eight calls describing long-term exposure, three relayed withdrawal symptoms. Eleven cases had symptoms associated with recent kratom exposure (**Figure 2**). Clinical findings included tachycardia (n = 2), hypertension (n = 1), and elevated liver function tests (n = 1).

The increase in kratom-related exposure calls to DPIC, as with rising numbers of US calls,[2] likely reflects an increase in kratom availability. Currently, kratom products are sold

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In Canada, kratom is a relatively new psychoactive substance, which has not been licensed for human consumption and has been seized from outlets that were selling it as such.

as "not for human consumption" and, therefore, do not have any dosing recommendations, making individuals vulnerable to overdose/misuse. This is concerning given that members of the public consume kratom believing it to be efficacious for analgesia, mood elevation, anxiety reduction, and opioid withdrawal.[5] In the context of the current North American opioid crisis, kratom exposures are likely to increase.[3] While there is not sufficient evidence of its effectiveness in facilitating opioid withdrawal, there is growing research demonstrating the potential harms of kratom withdrawal.[1,6]

—Grazia Salvo, MD
—Dennis Leong, DPIC
—Victoria Wan
—Tom Kosatsky, MD, BCCDC

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Partner publications

Divisions Dispatch. Bimonthly news from the Divisions of Family Practice initiative. www.divisionsbc.ca/provincial/dispatch

Newsletters from local divisions of family practice. www.divisionsbc.ca/provincial/divisionnewsletters

GP Update. Quarterly GPSC newsletter. www.gpscbc.ca/news/publications

The Link. Updates from the Shared Care Committee. www.sharedcarebc.ca/news-and-events/newsletters

SSC Focus. Quarterly newsletter from Specialist Services Committee. www.sscbc.ca/news/ssc-focus-e-news

Pathways Update. Latest news and user tips from Pathways. pathwaysbc.ca/newsletters (login required)

cme calendar

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LIFELABS HEALTH CARE PROVIDERS CONFERENCE
Victoria, 2 Aug (Thu)
Why should you attend? LifeLabs is committed to our patients and their health care providers. We have organized this continuing medical education event as one of the ways of better serving our local community. Enjoy an evening of good food and drink with your colleagues while learning something new. Who should attend? General practitioners and specialist physicians, nurse practitioners, and other allied health care providers. Topics and speakers: Our speaker list is being finalized but we are following a fast-paced, case-based format this year from a variety of local experts, with time for Q&A after each presenter. Topics that will be covered include diagnostic dilemmas and management of common cases at the intersection of clinical practice and each of our lab disciplines: microbiology and infectious diseases, hematology and medical biochemistry/lipidology/toxicology. Registration is free. Please visit www.lifelabs.com/annual-conference to register. For additional information, please email annualconference@lifelabs.com.

BCMJ'S 60TH ANNIVERSARY
Vancouver, 9 Aug (Thu)
Come celebrate *BCMJ*'s 60th anniversary: Diamonds are Forever. Members + guest registration at http://evite.me/jANCkwTMc2.

GP IN ONCOLOGY TRAINING
Vancouver, 10 Sep–21 Sep and 4 Feb–15 Feb 2019 (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 30 days 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.

ADULT CONGENITAL CARDIOLOGY IN THE COMMUNITY
Vancouver, 29 Sep (Sat)
The Adult Congenital Cardiology in the Community event would be the first of its kind in British Columbia. The main objective is to provide education and support to care providers around the province as they partner with the St. Paul's Hospital Pacific Adult Congenital Heart (PACH) program in providing care for these patients. Participants are expecting to recognize the red flags in ACHD patients and to define a shared care model between community practice and quaternary care centre for patients with ACHD. This will be a 1-day event with a target audience of general cardiologists, internists, residents, fellows, nurses, and allied health professionals who care for adults with congenital heart conditions as part of their practice. It will be held at the Morris J. Wosk Centre for Dialogue in Vancouver. To register and for more information, please visit https://ubccpd.ca/course/acc2018, call 604 675-3777 or email: cpd.info@ubc.ca.

MINDFULNESS IN MEDICINE
Molokai, HI, 13–20 Oct (Sat–Sat)
Now is the time! Join Dr Mark Sherman on the pristine Hawaiian island of Moloka'i for this 7-day mindfulness meditation retreat for physicians. The retreat is an opportunity to learn mindfulness and meditation skills, connect with fellow physicians, and to bring a restored perspective and vitality into your personal and professional life. We will offer instruction in basic and more advanced meditation practice interspersed with small group discussions and sharing, with an opportunity for self-reflection and deep rest. Please see http://livingthismoment.ca/event for more information and to register. Contact mark@livingthismoment.ca for any questions.

ALLERGY AND CLINICAL IMMUNOLOGY UPDATE 2018
Vancouver, 20 Oct (Sat)
The Allergy and Clinical Immunology Update is back again this year! This 1-day conference offers timely updates on common allergy and immunology issues faced by family physicians and pediatricians in the clinical setting. Participants will hear from leaders in the field on topics such as food allergy, drug allergy, immunodeficiency, and asthma. Participants last year remarked that they felt more confident managing food allergy and practical advice in daily practice. Target audience: family physicians, pediatricians, nurses, residents. Accreditation: Up to 7.0 Mainpro+/MOC Section 1 credits. This update will be held at the SFU Segal Building in downtown Vancouver. To register and for more information, please visit https://ubccpd.ca/course/allergy2018, call 604 675- 3777, or email cpd.info@ubc.ca.

19TH ANNUAL WORKSAFEBC PHYSICIAN EDUCATION CONFERENCE
Victoria, 20 Oct (Sat)
The 19th Annual WorkSafeBC Physician Education Conference will be held at the Inn at Laurel Point in Victoria. 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 agenda includes 3 plenary sessions, 14 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 get the early-bird rate of $179 + GST for physicians, and $89.50 + GST for students and residents. For more information, visit www.worksafebcphysicians.com.

INFECTIOUS DISEASES SYMPOSIUM
Surrey, 20 Oct (Sat)
The 4th annual Infectious Diseases Symposium will be held at Surrey Memorial Hospital, UBC Lecture Hall, Floor-B, Critical Care Tower. Symposium chair: Dr Yazdan Mirzanejad. Topics: Adult immunization and resurgences, necrotizing fasciitis, meningitis, high-risk infection during and after pregnancy, fever in returned travelers, parasitic infections in refugees and immigrants, common infections in transplanted patients, fever in children in the office and emergency room settings, and pitfalls in interpretation of infectious diseases diagnostics. Event speakers: Professor Tony Chow, Dr Monika Naus (BCCDC), Drs Alissa Wright, Laura Sauve, Mike Chapman, Miguel Imperial, Katherine Plewes, Meera Anand, Julie Schalwyk, and Yazdan Mirzanejad. Further information and registration: https://events.eply.com/infectious-diseases-day-2018-10-20.

26TH OBSTETRICS UPDATE FOR FAMILY PHYSICIANS
Vancouver, 25–26 Oct (Thu–Fri)
Please join us for this 2-day course designed to meet the needs of a busy practitioner, no matter where you work! Suitable even if you don't attend births: provides updates for early pregnancy care, postpartum, and newborn care. Wine and cheese social event at the end of the day on Thursday! Hands-On Ultrasound Education Obstetrics Course as postconference workshop on Sat 27 Oct and Sun 28 Oct. Accreditation: up to 13.50 Mainpro+ credits. To register and for more information, please visit https://ubccpd.ca/course/OB2018, call 604 675-3777, email cpd.info@ubc.ca. The course will be held at the Marriott Pinnacle Downtown Hotel in Vancouver.

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practices available

COMOX VALLEY—INPATIENT CARE FOR UNATTACHED PATIENTS
Opportunity for two physicians to join a congenial group of physicians providing inpatient care for unattached patients as part of the local Doctor of the Day Program. Services are delivered as part of the provincial Unassigned Inpatient Program and supported by the Comox Valley Division of Family Practice. For information about the Comox Valley and the division, visit https://divisionsbc.ca/comox/displayitem?li=6939. Remuneration is excellent. Shifts: up to 11 days/month in 3-, 4-, 7-, or 11-day shifts. Qualifications: eligible for licensure with College of Physicians and Surgeons of BC. Contact: Lyndsey Jennings, CV Division, ljennings@divisionsbc.ca, 250 218-0491.

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Family practice for sale: $1.00! The right doctor for this clinic wants a low-stress, no-hospital, full- or part-time practice with nurse practitioner support and rural CME and locum funding in an amazing, beautiful, small island community a short ferry ride from Vancouver Island. Call Mary at 250 285-3540 or email office@qimc.ca.

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VICTORIA—OPPORTUNITY: JOIN OR BUY
Well-established, busy walk-in clinic with family practices on site. Looking to add more owners or to sell clinic outright. Attractive business/practice opportunity. Reply to victoriamdclinic@gmail.com.

employment

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Physicians looking to start a practice or to relocate and enjoy the beauty of BC will be pleased to work in our state-of-art facility using OSLER EMR. Great working environment and well-trained staff. Compensation is fee-for-service with an estimated remuneration of 250K per year (70/30 overhead split). BC licence required. International graduates who need to work within the College of BC Guidelines welcome. Website: https://windermeremedicalclinic.ca.

ARMSTRONG—FT FAMILY PHYSICIAN
Haugen Medical Group, located in the heart of the North Okanagan, is in need of a full-time family physician to join a busy family practice group. Flexible hours, congenial peers, and competent nursing and MOA staff will provide exceptional support with very competitive overhead rates. Obstetrics, nursing home, and inpatient hospital care are not required, but remain optional. Payment schedule: fee for service. If you are looking for a fulfilling career balanced with everything the Okanagan lifestyle has to offer, please contact Maria Varga for more information at mariaka1@telus.net.

BC—#1 MED RECRUIT SPECIALISTS IN CANADA
Physicians For You. For the last 10 years we have been assisting clinics looking for family physicians and specialists, and assisting physicians looking for short-, medium-, and long-term positions across Canada. Our goal for everyone we work with is to provide expert guidance, advice, and support throughout the entire recruitment process, and to be available for you 24/7 to make the process as efficient and hassle-free as it can be for all involved. If you're interested, or just keen for further information, please contact us: info@physiciansforyou.ca, 778 930-0265.

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Freshly renovated Burnaby office with beautiful views, looking for physicians. We feature a 75/25 split, a convenient location 7 minutes from Patterson SkyTrain station, flexible working hours, OSCAR EMR, a printer in each room, group practice, friendly MOAs, and free secure underground parking. Please contact us at namc3373@hotmail.com.

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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 email ammy.pitt@caledonianclinic.ca. Visit our website at www.caledonianclinic.ca.

NORTH DELTA—TWO FPS, LOCUM/FT
Looking for two family physicians for our clinic at the Scottsdale Medical Centre to start ASAP as locums, full-time, or as associates, with the intention of being partners in the long run. Clinic is located in North Delta (open since 1983). Fully equipped with EMR and paper charts. We have a full-time family practice and a walk-in clinic. Billing split negotiable. Contact medicalclinic07@gmail.com or call 604 597-1606 as soon as possible.

NORTH VAN—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.

PITT MEADOWS—FAMILY PHYSICIANS
We are seeking three full-time family physicians to join our team at the New Pitt Meadows Medical Clinic. We encourage physicians to have a full family practice with regular shifts in our very busy walk-in clinic. The NPMMC is a purpose built, well established, and highly reputed practice in Pitt Meadows with beautiful views. It is ideally situated between Coquitlam and Maple Ridge in a high-visibility, high-traffic location. We have excellent staff. Low overheads for full-time physicians. At present, the clinic is open 6 days per week. For further details visit www.newpittmeadows-medicalclinic.ca or contact Dr L. Challa at 604 465-0720.

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POWELL RIVER—LOCUM
The Medical Clinic Associates is looking for short- and long-term locums. The medical community offers excellent specialist backup and has a well-equipped 33-bed hospital. This beautiful community offers outstanding outdoor recreation. For more information contact Laurie Fuller: 604 485-3927, email: clinic@tmca-pr.ca, website: powellrivermedicalclinic.ca.

S SURREY/WHITE ROCK—FP
Busy family/walk-in practice in South Surrey requires GP to build family practice. The community is growing rapidly and there is great

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Continued from page 331
need for family physicians. Close to beaches and recreational areas of Metro Vancouver. OSCAR EMR, nurses/MOAs on all shifts. CDM support available. Competitive split. Please contact Carol at Peninsulamedical@live.com or 604 916-2050.

SOUTHERN INTERIOR, BC—OPPORTUNITIES FOR ANESTHESIOLOGISTS
Interior Health (IH) is recruiting anesthesiologists in both locum and permanent capacities in several communities, including Cranbrook and Kamloops. In addition to improving anesthesia and pain management through our collaboration with UBC's Southern Medical Program, you will have the opportunity to make an impact in education and research. At IH anesthesiologists provide services for a wide range of surgical and diagnostic procedures, including general surgery, orthopaedic surgery, neurosurgery, vascular surgery, OBG, ENT, plastic surgery, urology, and multiple trauma. Come enjoy a rewarding career in one of our many caring communities. See job postings: www.betterhere.ca.

SURREY/DELTA/ABBOTSFORD—GPS/SPECIALISTS
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SURREY—FAMILY PRACTICE
Very busy, well-established family practice in Surrey looking to add one or two physicians. We welcome all physicians, from new graduates to semi-retired, either part-time or full-time, permanent or locum. Decide your schedule. No on-call or after-hours. Access to user-friendly EMR (OSCAR), experienced and professional MOAs, office manager. Help with transitioning or moving allowance, if applicable. A very competitive 88/12 split. Please call 778 985-2763 or email doctorbclinic@gmail.com for more information.

VANCOUVER/RICHMOND—FP/SPECIALIST
We welcome all physicians, from new graduates to semi-retired, 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 Winnie at medicalclinicbc@gmail.com.

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.

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Experienced family physician wishing to expand medical team at Mattick's Farm in beautiful Cordova Bay. Fully equipped office, OSCAR EMR, congenial staff, close to schools. Contact phoughton@shawcable.com, phone 250 658-5228.

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Newly occupied medical office. Secure and well kept. Across from Metropolis, near SkyTrain. Established neurologist has set up. Office space with two examining rooms, all furnished. Negotiable: share existing system or bring your own staff and system, open to finding the best system for your practice. Beautiful courtyard, parking nearby. Contact Dr Cory Toth at drcorytothoffice@gmail.com, 778 737-8684.

CHILLIWACK—TURNKEY MEDICAL PRACTICE
Incredible opportunity to practise in 1100 sq. ft. office in prime location Chilliwack. Clinic is complete with waiting room, office space, two exam rooms, and further room to expand. Helpful pharmacy adjacent. Fully equipped and stocked with all medical supplies, computers, and specialty equipment. Large patient population with waiting list seeking caring family physician. Be a part of a great community. Travel/moving/accommodation etc. funds available. Please call/email for more information: 604 418-8977, ajitjohal21@gmail.com.

S SURREY—MED OFFICE FOR LEASE
Tastefully designed Hwy 10 and 152nd Street office for sublease until Oct 2019 with option anytime to negotiate longer-term full lease. Second floor, south exposure and view. Reception area, two offices, two exam rooms, plus boardroom with kitchen facilities. Private restroom in-suite with public washrooms on same floor. Free parking. Call 778 571-4263.

VANCOUVER (KERRISDALE)—OFFICE SPACE
Airy, spacious, quiet office available for a psychiatrist or psychologist on Fri and/or weekends. Located in Kerrisdale Prof. Bldg., an exceptionally convenient location for access by public transit or car, with a large amount of free residential parking available. Close to pharmacies, labs, a walk-in clinic, coffee shops, and restaurants—all within walking distance. The office is accessible by stairs and elevator. Consists of a waiting area that seats two people; a large reception desk; file storage room; and large, bright, comfortable interview room/office. If interested please contact Dr Lewis Pullmer at dr.pullmer@gmail.com, or contact the office directly at 604 872-3422.

VANCOUVER (KERRISDALE)—SHARED SPACE AVAIL. FOR INTERNAL MED PRACTICE
Subspecialist looking to share office space in modern medical office in Kerrisdale area: 899 sq. ft. office space, two exam rooms, reception, waiting room. Practice fully set up and running. For more information email jamila.madhani@gmail.com.

VANCOUVER (MAIN STREET)—2 MED OFFICE SPACES FOR LEASE
Two separate second-floor office spaces for lease: 650 and 600 sq. ft. Both set up as general medical. Established pharmacy on main floor. Unit 1: $1500/month, waiting room, three exam or office rooms. Unit 2: $1400/month, waiting room, two exam rooms, one small office. No elevator access. Utilities and unit cleaning included, property tax $5800/year. Contact Matthew at mhuangvan@gmail.com.

VANCOUVER—PHYSICIANS & THERAPIST
Fully furnished modern medical office located in Fairmont Medical Building near VGH has medical examination rooms available for physicians/health professionals and consultation rooms for therapists. Office is open 7 days a week 7a.m.–7 p.m. Terms are flexible to accommodate casual, part-time, and full-time hours. Offering both basic and fee-split leasing options. Able to accommodate both paper

and EMR (Accuro) practices (EMR training available). Additional services provided, include medical billing, transcription, medical supplies, marketing/advertising, and support staff. For more information please email raz@elitemedicalassociates.com.

VANCOUVER—TWO RENOVATED OFFICES CLOSE TO VGH
Two fully renovated office spaces available close to VGH with city views. Close to the Broadway–City Hall Canada Line station on Cambie for your patients' convenience. The offices are suitable for psychiatrists, psychologists, or counselors. New furniture, including in the waiting area. Customize your office and bring in your phone, fax machine, etc. Offices are available immediately on a 1-year lease basis; however, will consider other options. Negotiable and reasonable rent. Call or text 604 970-6600 or email wahan.wanis@ubc.ca.

VICTORIA—OAK BAY AVE. OFFICE SPACE
Available 1 July 2018 unique street-level Oak Bay Ave. office space suitable for one to two practitioners. Previous tenant retired after 35 years of family practice and obstetrics. Option to lease fully furnished and equipped. Two family practitioners in the building. Call 250 477-5386 or email elizgrant@shaw.ca.

vacation properties

POINT ROBERTS, WA—WATERFRONT VACATION HOME FOR SALE BY OWNER
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miscellaneous

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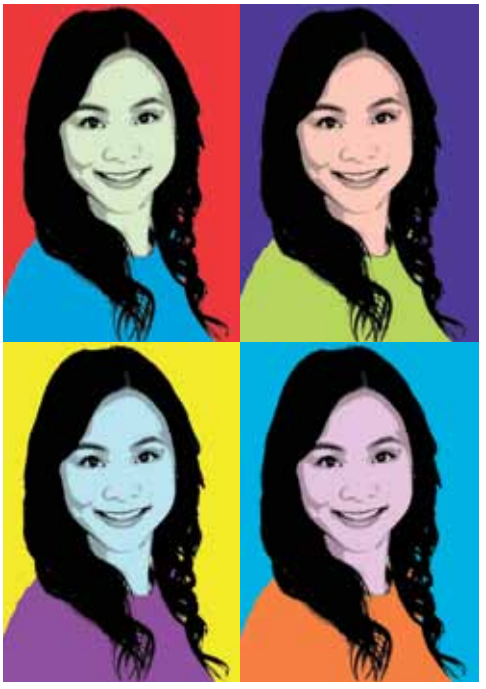
VANCOUVER—TAX & ACCOUNTING SVCS
Rod McNeil, CPA, CGA: Tax, accounting, and business solutions for medical and health professionals (corporate and personal). Specializing in health professionals for the past 11 years, and the tax and financial issues facing them at various career and professional stages. 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, email: rodney@rwmcga.com, phone: 778 552-0229.

Proust questionnaire: Dr Yvonne Sin



What profession might you have pursued, if not medicine?
Forensic scientist.

Which talent would you most like to have?
Musical talent of any kind. Or being able to be invisible.

What do you consider your greatest achievement?
Getting into medicine despite setbacks.

What is your idea of perfect happiness?
Working at a place I find fulfillment, spending quality time with my family, and being content with what I have.

What is your greatest fear?
Seeing pain and suffering in people I love.

What is the trait you most deplore in yourself?
Procrastination.

What characteristic do your favorite patients share?
Being self-motivated and having a sense of humor.

Which living physician do you most admire?
Dr Joanne Liu, president of Doctors Without Borders.

What is your favorite activity?
Watching the sunset.

On what occasion do you lie?
Never, because one lie can lead to another.

Which words or phrases do you most overuse?
"How's it going?" I once said this, without realizing, to a 3-year-old. He just looked at me blankly while eating his cracker.

Where would you most like to practise?
In beautiful BC, close to my family and friends.

What technological medical advance do you most anticipate? Gene mapping with a bedside device.

What do you most value in your colleagues?
Compassion and honesty.

What is your greatest regret?
Not asking for answers at the time a situation is happening, and always wondering why afterwards.

How would you like to die?
Quickly, and with a smile on my face.

What is your motto?
We can do this!

Dr Sin recently completed her family medicine residency at UBC and is looking forward to working in full-service family medicine and maternity care. She completed her BSc (Pharm) and MD at UBC. She joined the *BCMJ* Editorial Board in 2017. In her spare time, she enjoys traveling, trying new cuisines, and practising yoga.

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Online: www.bcmj.org/submit-proust-questionnaire

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