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BCMJ
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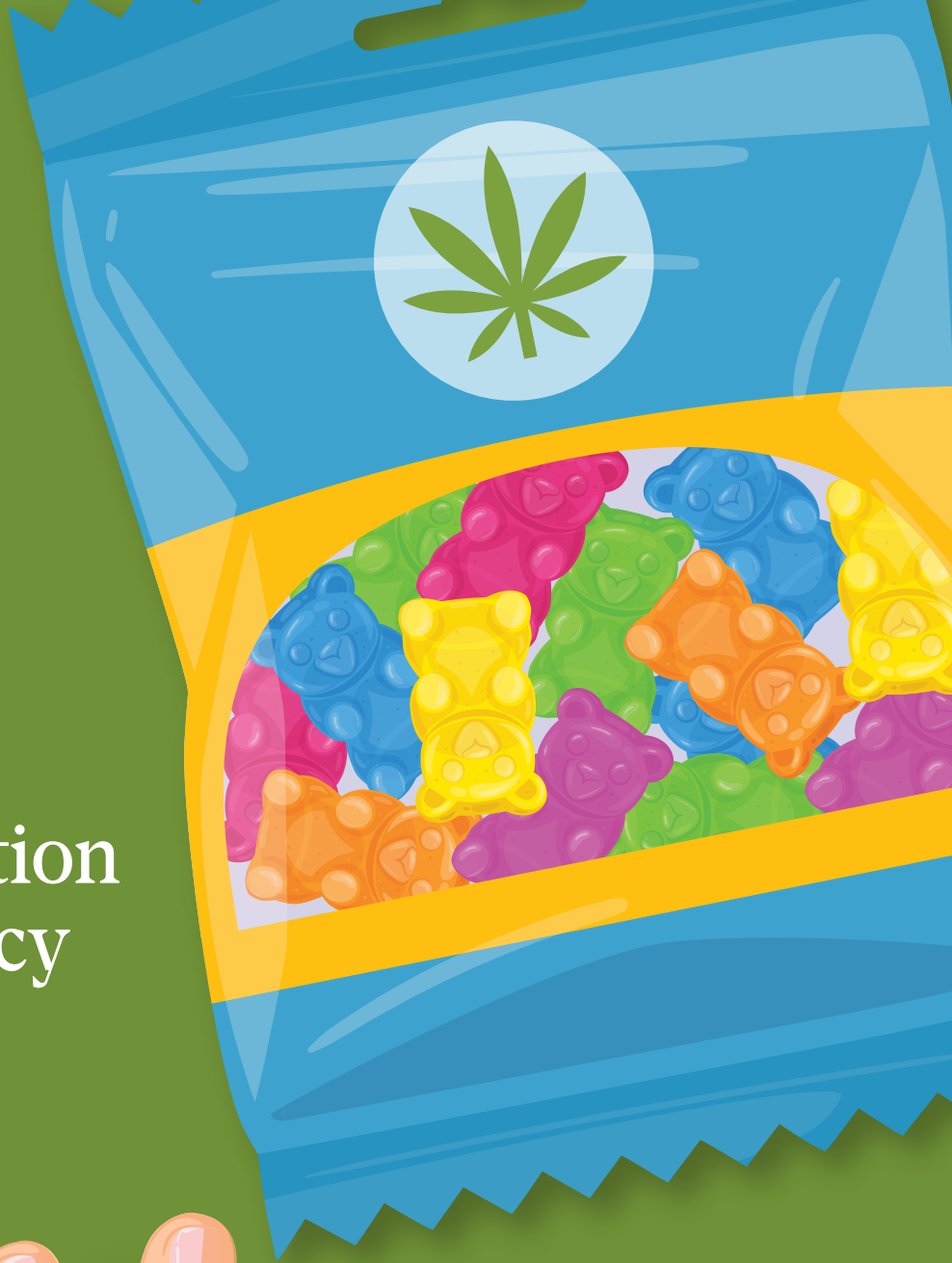
Presentation of pediatric cannabis ingestion in the emergency department



IN THIS ISSUE

Clinical Images
Incidental tumor retrieval during point-of-care-ultrasound-guided thoracentesis

Premise
"Power with": An alternative to medical colonialism

COHP
Ethical considerations around the use of artificial intelligence in health care

BCCDC
Youth suicide and self-harm by medications in BC: The role of means restriction

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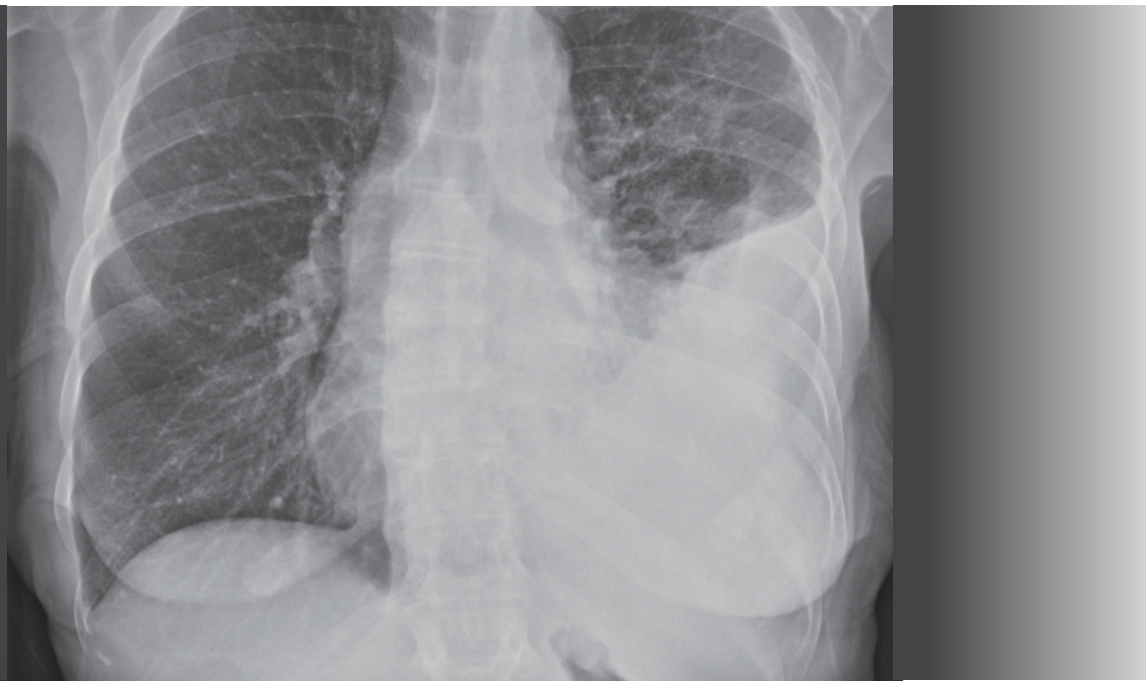

Upon presentation to a Canadian emergency department, a woman was hypoxic and minimally ambulatory. The initial chest X-ray showed a large left pleural effusion. "Incidental tumor retrieval during point-of-care-ultrasound-guided thoracentesis" begins on page 324.

Mission: The *BCMJ* is a general medical journal that shares knowledge while building connections among BC physicians.

Vision: The *BCMJ* is an independent and inclusive forum to communicate ideas, inspiring excellent health care in British Columbia.

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Quality: Publishing content that is useful, current, and reliable.
Connections: Sharing diversity of thought and experiences from across the province and promoting communication between BC doctors.
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308 Editorials

- The case for serendipity, and what readers say about the *BCMJ*
  Caitlin Dunne, MD
- Opportunistic salpingectomy: General surgeons can reduce ovarian cancer in British Columbia
  Sepehr Khorasani, MD

310 Letters

- Re: Health outcomes of patients in the Complex Chronic Diseases Program
  Spencer Cleave, MD
  Thea Gilks, MD
  Isaac Rodin, MD
- Authors reply
  Luis Nacul, MD
- Why doctors must start thinking like CEOs
  Marie Claire Bourque, MD

313 President's Comment

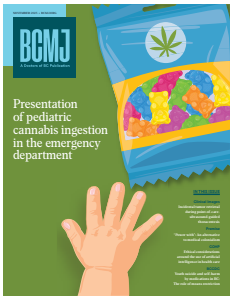
The power of physician leadership: Your voice, your vote
Charlene Lui, MD

314 Premise

"Power with": An alternative to medical colonialism
Robin Routledge, MD

317 BCMD2B

Witnessing the in-between
Stephanie Quon, BASc



ON THE COVER
Since the legalization of cannabis in Canada, there has been an increase in exploratory exposures in young children and related emergency department visits. Article begins on page 318.

Editor-in-chief
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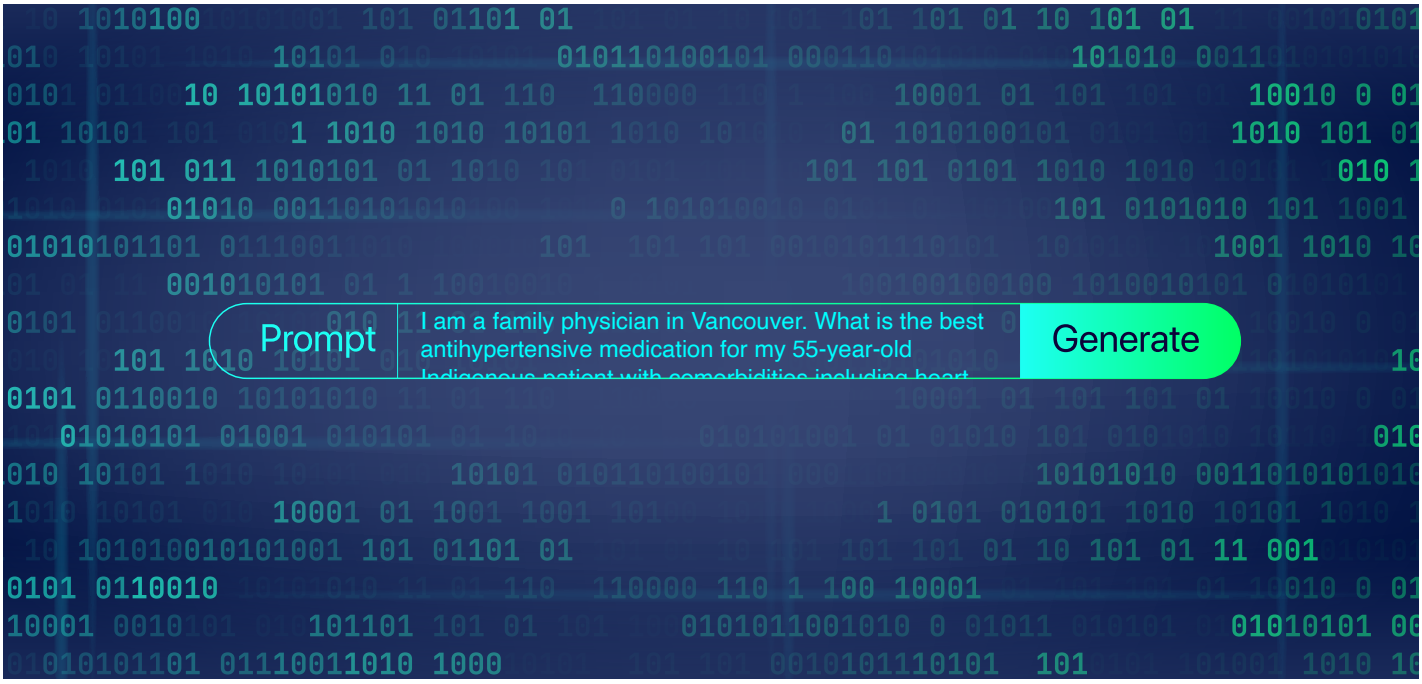

Writing a good prompt by specifying your role, the patient population, and pertinent clinical details will greatly improve the usefulness of an artificial intelligence result. "Ethical considerations around the use of artificial intelligence in health care" begins on page 326.

CLINICAL

REVIEW ARTICLE

318 Presentation of pediatric cannabis ingestion in the emergency department
Adam P. Sage, MD, Mohamed Alahmadi, MD, Vikram Sabhaney, MD, Jessica Moe, MD

CLINICAL IMAGES

324 Incidental tumor retrieval during point-of-care-ultrasound-guided thoracentesis
B. Ng, PharmD, N. Saleh, MD, K. Wiskar, MD, W. Leung, MD, S. Morrison, MD

326 COHP
Ethical considerations around the use of artificial intelligence in health care
William Liu, BHSc
Colin Siu, MD

327 BCCDC
Youth suicide and self-harm by medications in BC: The role of means restriction
Brandon Yau, MD
Mojgan Karbakhsh, MD
Megan Oakey, MPH
Jeffrey Trieu, MPH

329 Physician Spotlight
A healing journey
Cecil Hershler, MD

332 Classifieds

334 Backpage
BCMJ 2025 reader survey results
BCMJ staff

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The case for serendipity, and what readers say about the *BCMJ*

You arrive home after a long day of seeing patients and collect the mail, scattered across the entryway beside children's shoes and cardboard boxes. Among the flyers and bank statements is the *BCMJ*. You recognize it instantly by its distinctive, if enigmatic, cover artwork. As you wait for the water to boil while making dinner, you leaf through the journal's pages to discover that a friend from medical school has published a piece in the Clinical Images section. It's not directly relevant to your specialty, but it's interesting to see what she's up to in the remote community where she practises. A clinical article on asthma treatment in BC also catches your eye—not something you typically manage in your practice, but relevant nonetheless, since one of your children suffers from asthma, and wildfire season will soon be upon us (something else you've read about in a prior issue of the *BCMJ*). You pause at a letter responding to last month's President's Comment, addressing government policies that could affect physicians across the province.

As family physicians or specialists, we all have our go-to resources for continuing medical education. But given the countless niches and the depth of medical knowledge that exists today, these resources rarely overlap across subspecialties. That's the beauty of a general medical journal—even if you aren't seeking a specific article, many turn out to be relevant, either directly or indirectly, because they're local. The *BCMJ* keeps doctors connected outside of their clinical lanes. My message to potential authors is this: More of your colleagues will read your research if you publish it here than almost anywhere else. Medicine doesn't happen in silos, nor should our reading.

The act of browsing strengthens the sense of community across our province

In June 2025, we completed our most recent reader survey, with 795 responses from 24 700 surveys sent, a modest response rate but comparable to prior surveys in 2022 and 2016. Of those respondents, 39% were family physicians, 40% were specialists, 17% were retired, and 4% were students. The majority (57%) were between 35 and 64 years of age, while 36% were over 65 years of age. The survey results are presented in greater detail later in this issue, but a few standouts deserve mention:

- The *BCMJ* is, increasingly, a journal that people want to read. Sixty-two percent of respondents said they "always" or "usually" read the journal, compared with 40% in 2016 and 2022. At a time when publications are struggling to hold readers' attention, this growth in loyalty is remarkable. Physicians value the *BCMJ* as a source of information about what is happening in BC's health care system and with its health care providers.
- Serendipity is our strength. Most readers (58%) said they browse for interesting headlines, which reinforces the importance of discovery. A digital algorithm may not serve up the article you didn't know you needed, but the *BCMJ* can, and often does. The act of browsing strengthens the sense of community across our province by exposing us to topics beyond our own specialties.
- Print still works. Across all ages, the *BCMJ* maintains strong support for a print edition, with 74% to 88% of readers aged 35 to 65 saying they prefer it. This is consistent with 2022, when 82% reported the same. Print invites that flip-through moment that leads to unexpected discoveries—pieces that might otherwise be buried in an inbox. It also encourages communication and supports our work in a way that feels tangible and enduring.

We invite you to read more on page 334 of this issue and share your reflections with us. The survey results confirm what we're doing well, but they also highlight areas for improvement—whether through indexing, increased visibility, or digital evolution. As I mentioned in June when I asked you to complete the survey, the *BCMJ*'s future is shaped by its readers. ■

—Caitlin Dunne, MD

Opportunistic salpingectomy: General surgeons can reduce ovarian cancer in British Columbia

British Columbia was the first jurisdiction in the world to introduce opportunistic salpingectomy in 2010.[1] Opportunistic salpingectomy refers to the removal of the fallopian tubes during hysterectomy or instead of tubal ligation, while leaving the ovaries intact. It has proven to be an effective means to prevent ovarian cancer, particularly serous ovarian cancer.[2,3]

As there is no effective screening for ovarian cancer, it is often diagnosed at an advanced stage, making prevention key in reducing morbidity and mortality associated with ovarian cancer. High-grade serous cancer (HGSC) is the most common and aggressive subtype of ovarian cancer and mostly arises from the fallopian tube epithelium.[4] The risk of developing ovarian cancer in the general population is 1.4%;[5] however, this risk significantly increases in those with the germline mutations *BRCA1* and *BRCA2* (a cumulative risk of up to 75% and 34%, respectively).[6] Therefore, prophylactic bilateral salpingo-oopherectomy is recommended in this higher-risk patient population. However, to reduce the risk of ovarian cancer in the general population—where 80% of ovarian cancers develop—prophylactic removal of the ovaries is not advised, considering the risk of early iatrogenic menopause, coronary artery disease, osteoporosis, and mortality.[7] In women who have finished having children, removing the fallopian tubes provides an effective strategy to reduce HGSC risk without any hormonal consequences.

Gynecologists offer salpingectomy in patients undergoing pelvic surgeries such as hysterectomy or in place of tubal ligation as a sterilization method. Studies have shown no increased risk of complications such as bleeding,[8] ureteric or ovarian injury (oral communication from Dr Gillian Hanley, associate professor, UBC Faculty of Medicine, 8 September 2025), or conversion to open surgery[9] when opportunistic salpingectomy is added to the index surgery. In a recent study, Hanley and colleagues compared observed and expected cases of HGSC in patients undergoing opportunistic salpingectomy and demonstrated a significant reduction in ovarian cancer rates (0% versus 5.27%; 95% CI, 1.78-19.29).[3]

Considering that general surgeons commonly perform abdominal surgeries and the relative safety and ease of performing opportunistic salpingectomy, their involvement will allow for significantly more salpingectomies at the population level, contributing to an overall reduction in HGSC. Studies so far have supported opportunistic salpingectomy during laparoscopic cholecystectomy without increased complication rates, with an average additional operative time of 13 minutes.[10] Although in 30.5% cases, an additional port placement was required during laparoscopic cholecystectomy, this should not have significant consequences for patients or their surgical outcome. Opportunistic salpingectomy can also be safely and conveniently performed during other nongynecological pelvic operations, such as colon and rectal resections. Unpublished data from BC support performing opportunistic salpingectomy during colorectal surgery, with only 4 minutes of added operative time.

Despite the current trends and evidence, more widespread buy-in from general surgeons is needed. The somewhat slow uptake can be explained, in part, by issues with remuneration, added operative time, a surgeon's comfort level to perform the procedure, and medicolegal concerns, particularly related to patient selection and appropriate consent. There has been excellent work done by British Columbia health care leaders Drs Gillian Hanley, Heather Stuart, and Scott Cowie to encourage and support general surgeons in performing opportunistic salpingectomy. These measures include creating a new billing code for general surgeons performing opportunistic salpingectomy; patient pamphlets in 13 languages to help with patient education; and patient videos explaining the procedure, including its indications and benefits, to facilitate informed consent. There is also a dedicated group of gynecologists around BC who are available to help support general surgeons in performing opportunistic salpingectomy. On Vancouver Island, we have been able to secure funding to raise

Continued on page 312

Opportunistic salpingectomy resources

Additional resources about opportunistic salpingectomy are available on the Specialist Services Committee website (https://sscbc.ca/os):

- **For patients:** *Opportunistic Salpingectomy*—ovarian cancer prevention educational pamphlet
- **For physicians:** *Opportunistic Salpingectomy (OS)*—consent handout
- **For general and urologic surgeons:** Video: *Expanding Uptake for Opportunistic Salpingectomy in BC*

Letters to the editor

We welcome original letters of less than 500 words; we may edit them for clarity and length. Email letters to journal@doctorsofbc.ca and include your city or town of residence, telephone number, and email address. Please disclose any competing interests.

Re: Health outcomes of patients in the Complex Chronic Diseases Program

We thank the authors for their illuminating article [*BCMJ* 2025;67:174-181]. We appreciate the dedication of the Complex Chronic Diseases Program (CCDP) to a group of patients who are stigmatized and profoundly underserved by our health care system. These patients suffer deeply, and their distress deserves compassion and appropriate care.

We disagree with the authors' conclusion that the absence of meaningful clinical improvement in their study indicates that patients with fibromyalgia and myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) have illnesses that are too "severe and persistent" to respond meaningfully to treatment. We believe the more urgent implication of this study is that these patients' suffering was not ameliorated because the treatment provided by the CCDP does not address their complex psychosocial needs.

Patients with fibromyalgia and ME/CFS have a high proportion of childhood physical abuse, emotional neglect, and sexual trauma.[1,2] This trauma contributes to profound attachment disruptions and, when combined with the chronicity of their illness and the stigma they face, fosters deep epistemic mistrust toward the health care system. Establishment of a longitudinal, trusting relationship with a consistent care provider offers a supportive attachment, which is essential for these patients to engage in care and experience recovery.

The CCDP model, focused primarily on specialist consultations and other short-term interventions such as self-management, pacing, pharmacotherapy, and group medical visits, is thus fundamentally limited. The pursuit of these treatments is ineffective, as the authors conclude, and is, therefore, a disservice to our patients.

The treatment of complex chronic diseases necessitates individualized, holistic, long-term, and relationship-centred care. Primary care physicians are well positioned to provide this care, as is offered by the High Complexity Care Team in Victoria. Psychiatrists, who were strikingly absent from the interdisciplinary team members mentioned in this article, are also well positioned to provide this care, as is offered by the St. Paul's Hospital Complex Pain Centre.

Treating complex chronic diseases requires systems that are willing to centre access to individualized, longitudinal, and whole-person care that is trauma informed. Programs like the CCDP are uniquely positioned to lead this charge, but only if they are willing to move beyond their short-term, consultative, and biological frame.

—Spencer Cleave, MD, CCFP
Medical Director, High Complexity Care Team

—Thea Gilks, MD, FRCPC
Psychiatrist, St. Paul's Hospital Complex Pain Centre

—Isaac Rodin, MD
Psychiatry Resident, UBC
St. Paul's Hospital Complex Pain Centre

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Authors reply

We thank the *BCMJ* for sharing the letter from Cleave and colleagues[1] about our article and the authors for their perspective on the needs of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) and fibromyalgia patients in BC. We concur with their assessment that patients with complex chronic diseases have often been "stigmatized and profoundly underserved by our health care system" and that they deserve appropriate care. We thank them for recognizing the dedication of the only provincial reference service for these patients.

However, our team disagrees with the assessment that the conclusion of our article indicates that ME/CFS and fibromyalgia are "too severe and persistent to respond to treatment." Instead, the article concludes that there were some improvements in mental and physical health indicators and the severity of ME/CFS, *which were nevertheless* limited.[2] The intended conclusion was to point to the chronic and individualized nature of these diseases and the difficulty of treating them, not least due to the current absence of evidence-based curative treatments for ME/CFS,[3] not that they are untreatable. The Complex Chronic Diseases Program (CCDP) prioritizes the biological as well as the psychosocial health of patients and has a full team of interprofessionals, including mental and physical health specialists. While overall improvements were small, it is significant that mental health scores of patients with complex chronic diseases improved during the COVID-19 pandemic, a period when the general population experienced a particularly high risk of developing or worsening mental health problems.

In our article, we also emphasize the importance of "earlier diagnosis and intervention, particularly at the primary care level." This is particularly important having in mind that most patients presented late to the specialized service, years after developing the disease. We have previously reported on the importance of early diagnosis and management as key to improving the prognosis of those with ME/CFS.[4] This is true for chronic diseases in general, for which treatment becomes increasingly more challenging in later disease stages and disease complications limit the impact of treatment.[4] We offer a path to better outcomes, based on the "integration of primary care, community providers, and specialist expertise," and highlight the importance of "continuing education and research." Education of health professionals, in particular those in primary care, would be key to early diagnosis and management.

Regarding the authors' claim that childhood trauma can explain the disease etiology in part or in full, the evidence of childhood trauma as a risk factor for complex chronic diseases is rather weak and nonspecific. Studies suggesting this relationship have been of poor quality (as reported by Häuser and colleagues' meta-analysis, cited by Cleave and colleagues in their letter).[5] That study specifically indicated that "study quality was mostly poor," confounding the findings.[5]

The study by Gardoki-Souto and colleagues, also mentioned in the letter, is a cross-sectional study, and thus also inappropriate for determining causality.[6] Moreover, a high proportion of patients in the study were recruited from mental health services, which generates significant selection bias in the sample; the potential for bias is further increased by the absence of controls.

Trauma is not uncommon and should be considered in any patient when assessed at health services. This should be addressed and managed accordingly. The CCDP has been a trauma-informed service since its inception. This means we fully consider trauma as possibly present in any patient who reaches the program and tailor care with respect and sensitivity accordingly. This does not in any way suggest, let alone demonstrate, causality between trauma and complex chronic diseases. Suggesting childhood trauma as an explanation for complex chronic diseases is very problematic, is not patient centred, and does a disservice to this often-neglected population by psychologizing physical health problems.

The treatment of complex chronic diseases is indeed longitudinal and, as such, includes multiple contact points with the interprofessional team. We have also worked together with primary care to best serve the continuing needs of the patient population. Indeed, we need to continue to fight the stigmatization of this patient population, including that observed within the health sector,[7] which has more than often hampered the well-being and management of this patient population. Good science and health practice are important steps.

—Luis Nacul, MD
Clinical Associate Professor, Department of Family Practice, UBC

Note: The study team is no longer connected with the CCDP. The statements in this letter speak only for the program in the context of the original article.

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Why doctors must start thinking like CEOs

Maybe I'm burned out, sure, but maybe I'm just sick of not getting paid for the work I do. I'm a psychiatrist, and it is shocking to me that we physicians routinely don't get paid for work we've done.

In BC, the Medical Services Plan (MSP) often doesn't pay. We get cryptic notes like "BH—This claim will be processed on a future remittance statement." No date. No clarity. As of the time of submission of this letter, I have over $3000 in accounts receivable from BH-coded claims from MSP, spanning months. No indication of what they are doing or when the claim will get paid. Are they drawing cards from a hat to figure out when they will pay those claims?

Next time I go to file my income tax, I'm going to write "BH" on the provincial portion. And when they call me and ask me for details, I will tell them, "This will be processed in the future. That's all I can tell you at this time."

This is not true in all situations. I get paid for 100% of the work I do in my outpatient clinic. And I get paid on time. It's the emergency work, the hospital work, the work I do with marginalized folks that doesn't get paid. And there are two reasons for that.

First, we do not demand that MSP pay on time. Do other businesses have problems getting paid? Maybe, but they go after their payments. They go to collections. They don't work with those clients anymore. Months can go by without getting paid for certain claims. And we are helpless. Try doing accrual accounting with that. Forget net 15 or net 30. In BC, with MSP, it's net

WWFLPYD (whenever we feel like paying you, doctor).

Second, MSP does not pay equitably for a lot of marginalized folks. They won't like that I'm saying this, but it's simply objectively true. I do a lot of free work at Kelowna General Hospital. I see this most often with folks who are marginalized and may not have the resources or capacity to keep up MSP coverage. MSP points to the Enhanced Urgent Care Coverage Program (EUCCP). But in real life, the EUCCP has worked 0/8 times for me, because to get paid, I'm supposed to collect "proof of residency"—a utility bill, an employer letter, or a signed questionnaire—from the patient, someone I am involuntarily admitting to a windowless locked room while administering antipsychotics and sedatives they do not think they need. The last time I tried to ask a patient in this situation if he had a utility bill so that I could get paid, he quickly reminded me what he thought of me at that moment. I will not be doing that again. (He also doesn't have a hydro bill, because he doesn't have a home.) But, as a firm believer that they would pay me for the work I did, when I first moved to BC, I submitted multiple EUCCP claims anyway. Success rate: 0%. Also, FYI, you are not contacted about the claims. They just . . . disappear. No call. No explanation. And when you call them? And you get transferred to the right person? They dismiss you because you didn't get the proper documentation from the patient you were putting in four-point restraints.

Show me another business that tolerates this. Most businesses set payment terms and enforce them. But BC doctors? We've normalized dysfunction. Maybe because many BC physicians don't realize that in other provinces, you actually get paid for every code you bill. On time. We are contractors providing services to the Province of BC. Why are we (physicians) taking the loss? That's for the BC government to solve.

We are not contracted by the patients themselves. I would argue that it's not very ethical (and *certainly* not very practical) to send an invoice to a patient you involuntarily kept in hospital for days while giving them medications they didn't want or think they needed.

This isn't just about physician pay—it's also about care. When the system makes it impossible to be paid for treating the most marginalized patients, it creates pressure to spend less time on them. That's not the health care system we claim to be.

We weren't trained to run businesses. This is hugely advantageous for the system. We don't know that this isn't normal. Oh, and by the way, don't contact your hospital for help. They would rather bring in their lawyers to ensure they don't have to help you. Trust me. I have it in writing: your hospital is not responsible for helping doctors get paid.

I, like you, should be getting paid for 100% of the contracted work I do within our public system. What would fix this?

- Real timelines for MSP payments. I suggest net 15 or net 30, in keeping with insurance company standards.
- Charging interest. We (doctors) should be charging interest on unpaid claims, like every other business out there.
- A workable path to pay for emergency and involuntary care that doesn't hinge on documents patients in crisis cannot and will not produce. We (doctors) are not contracted by patients. We are contracted by the Province. If somebody is in your province, and we are providing emergency care for them, we should get paid—even if they are experiencing homelessness, schizophrenia, or substance use disorder.
- Hospital processes that start coverage support at admission—not after discharge, and not never.

We are the owners of our practices—whether we claim the title or not. It's time to act like it. Because honestly, in what other business would this be acceptable?

—Marie Claire Bourque, MD, MSc, FRCPC, DABPN
Kelowna

Continued from page 309

awareness and run multidisciplinary education sessions to encourage participation from general surgeons in opportunistic salpingectomy.

With increased awareness, women in BC will have the opportunity to discuss opportunistic salpingectomy with their primary care and specialist physicians, allowing for a more widespread practice of this procedure across the province. Recent data from the United States suggest that taking advantage of all surgical opportunities to offer patients opportunistic salpingectomy could prevent up to 25% of ovarian cancers.[11] No new treatments have provided such a significant improvement in survival for ovarian cancer patients in the past 50 years. Therefore, the potential to reduce the morbidity and mortality from ovarian cancer by expanding opportunistic salpingectomy to general surgery is not trivial. In an elective setting, opportunistic salpingectomy is a low-risk, relatively simple procedure that can be carried out with little to no extra resources required intra-operatively, and I strongly encourage general surgeons to incorporate opportunistic salpingectomy into their practice. ■

—Sepehr Khorasani, MD, MSc, FRCSC

Acknowledgments

I would like to thank Drs Gillian Hanley and Caitlin Dunne for their expertise and contributions to this editorial.

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References continued on page 313

The power of physician leadership: Your voice, your vote

As physicians, we have chosen a profession grounded in service, advocacy, and the pursuit of better health for all. Yet our responsibility does not end at the bedside. In a time of profound change in our health care system—with new models of care, shifting patient needs, and mounting pressures on resources—physician leadership has never been more essential.

My tenure as president of Doctors of BC has provided me with a unique vantage point on the transformative power of physician leadership. When I assumed this role, I felt both humbled and challenged by the task of representing colleagues across the province. The stakes were high, and the learning curve was steep. But the experience quickly reaffirmed that when physicians step into leadership, we have the power to influence policy, strengthen collaboration, and advance the profession in ways that directly benefit patients.

Some of the most inspiring moments of my term occurred during conversations with frontline physicians who were struggling with burnout and systemic challenges. Discussing the challenges, exploring creative and actionable strategies for improvement, and seeing policies and processes that support physicians' abilities to deliver care and improve patient access and outcomes leave me with a deep sense of hope. It is a reminder that change is not merely a disruption—it is an opportunity. With courage, compassion, and collective effort, we can turn moments of uncertainty into catalysts for lasting improvement.

Leadership is not simply about holding a title; it is about using one's clinical insight, lived experience, and values to help shape the future. It is about finding common ground and listening to the perspectives of others, even in the most difficult discussions, and guiding our profession toward collaborative solutions that serve patients and medical professionals alike.

It is now time for the next round of elections for Doctors of BC's president-elect, Board, Representative Assembly, and statutory committees. Electronic voting opened on 27 October, and I urge my colleagues to cast your votes before the 27 November deadline. This is a pivotal moment for BC health care. Change is here, and with it comes the opportunity to do great things. By lending your voice and your vote, you can help shape the direction of our health care system at this critical juncture. You can learn more at www.doctorsofbc.ca/elections.

To all my colleagues, I extend my deepest gratitude for your unwavering commitment to patients and one another. The bond we share as physician leaders, grounded in mutual respect, encouragement, and shared purpose, is one of our greatest strengths. Together, we can support each other in facing challenges, amplifying our collective voice, and creating a stronger, more resilient profession for the future, because together is our superpower. ■

—Charlene Lui, MD
Doctors of BC President

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"Power with": An alternative to medical colonialism

Medical colonialism and "power-over" approaches contribute to harms for Indigenous people, decrease their access to care, and lead to care avoidance.

Robin Routledge, MD, FRCPC

A First Nations senior presented to his hearing instrument practitioner with complaints of repeated episodes of vertigo. She advised him to go to the emergency room right away. He replied, "Listen, White girl, how do you think they will receive a stumbling Indian in their ER?" (oral communication from Ms Larissa Nelson, RHIP, 16 December 2024).

Modern scientific medicine can both participate in and be swept up by colonialism—at great cost.[1] This example demonstrates the importance of recognizing medical colonialism and of using a "power-with" approach instead of a "power-over" approach. By *power over*, I mean a relationship of control, with the unilateral ability to decide over another. By *power with*, I mean a relationship of dignity, with mutual decision making. By *medical colonialism*, I mean Western culture physician control, with the unilateral ability to make health care decisions without the inclusion of other voices. A power-over approach perpetuates medical colonialism, while a power-with approach helps to decolonize medicine. Power-over approaches and medical colonialism contribute to harms for Indigenous people, decrease their access to care, and lead to care avoidance.[2] This article compares these two approaches, drawing on medical and scientific publications, simplified examples from Western Canadian history, and my personal experience as the grandson of British immigrants who moved to Alberta in 1905.

Dr Routledge is a rural generalist psychiatrist with a Milan systemic approach and Indigenous influence living on the unceded land of the Quw'utsun Nation and other First Nations in the Cowichan region.

At the heart of colonialism is a belief in one's inherent superiority over others and the willingness to impose oneself accordingly, which leads to a dominant power-over approach of one culture over another. Historically, this has meant taking land from others, but the belief itself continues to justify impositions at individual, cultural, and societal levels.

Indigenous Elders (see the acknowledgments) teach that respect for a healthy environment enables a healthy community where individuals thrive. However, I cannot find reference to a thriving community in populations subjected to colonial violence—resisting the violence, yes, but not thriving. This is in line with the World Health Organization's social determinants of health. Even the best *individual* scientific health care will be either useful or successful only in proportion to the degree of *community* thriving.[3] Despite this, scientific health care literature focuses mainly on the care of individuals.

In this article, I use my specialty of psychiatry as an example of medical colonialism, but it applies to the health care system as a whole. The antipsychiatry movement was adopted by Frantz Fanon[4] and others[5] to articulate their resistance to the disrespect that psychiatric professionals can show to people experiencing situations of disabling thought, mood, or behavior. An antipsychiatry resistance is a logical response to power-over practices; resistance to any arrogant health care approach is similar. My experience with Indigenous patients is that they have asked me to stop my colonialist practices. From this, I recognized that they were asking me to stop my use of power-over (colonizing) ways of health care delivery.

Some historians describe the early British presence in Western North America as a transactional business partnership (power with), with the Hudson's Bay Company on one side and Indigenous intermediaries trading with other Indigenous communities on the other.[6] The Métis people emerged during this time. Then, rather suddenly, relations changed from a trading partnership to European settlement (power over). This new settler colonialism raised the question of what to do about the people already living here. The answer, after 140 years of mutual business partnership, was assimilation, which became genocide.[7]

The British government, followed by the Canadian government, attempted to assimilate the Indigenous trading partners, rather than adapting their own understanding to include Indigenous ways, as the business partners had. This soon meant Indian hospitals; pseudoscientific experiments;[8] Indian tuberculosis hospitals;[9] forced sterilization;[10] and residential school institutions, with language, dress, and cultural practices forbidden, leading to the recent discovery of hundreds of unmarked graves.[11] These components of forced assimilation exemplify what I mean by power-over practices. This colonialist violence was based in law, not war. It continued throughout the 20th century and, despite our increasing awareness and ambivalence, into present day.[12] Indigenous people are still often subjected to racist exclusion from health care. *In Plain*

Sight,[2] a 2020 commissioned report, details Indigenous-specific racism in the British Columbia health care system.

At both the federal and the provincial/territorial levels, Canada is changing its laws and behaviors through endorsement of the Truth and Reconciliation Commission of Canada's Calls to Action; the United Nations Declaration on the Rights of Indigenous Peoples; and justice, equity, diversity, and inclusion (JEDI) statements from various organizations, including Doctors of BC. The 2022 Physician Master Agreement contains an Indigenous-specific antiracism clause—BC has the first such clause in Canadian medical agreements with governments.[13] Many Indigenous health care workers are now providing health care services with Indigenous ways of knowing and being at their foundation. Most meetings I attend now include acknowledgment of the unceded land we are meeting upon. But we have not yet achieved a noncolonialist state.

Medical colonialism has been a part of our history for the last 200 years, and it occurs at different levels of perspective: individual, team or organizational, and societal. I understand this best by considering reports from Frantz Fanon and Henri Collomb,[14] partly because they were near-contemporary French psychiatrists, and partly because their reports show the polarity of power-over and power-with approaches.

Fanon wrote of his power-with experience in Saint-Alban's community psychiatric hospital. But he also wrote influential anticolonialist books about the destructive power-over approaches he experienced as a Black man, including in the 1954 Algerian War of Independence. Our descriptions of Canadian Indigenous people's suffering and resistance echo Fanon's reports of power-over suffering. Canadian Indigenous people have higher rates of suicide when separated from their purposefully suppressed cultures.[15,16] Their increased frequencies of diabetes,[17] poverty,[18] and criminality[19] can be seen as similar responses to Canada's genocidal power-over policies of assimilation.

But Collomb, sent to Senegal as head of psychiatry, found scientific medicine useful as a humble partner to traditional Senegalese health practices, and he learned from them by practising power-with inclusivity. For example, psychiatry is usually focused on illness and treatment of individuals, overlooking health and resilience as a function of belonging and connection. The latter orientation is common to Indigenous communities.[20] Fanon found imposed Western medicine toxic to Indigenous health; Collomb found it could be helpful when respectfully combined with traditional practices in a power-with way. When the potentially great asset of scientific medicine is imposed in a power-over way, it will likely be either avoided or of little to no benefit to the intended recipients because of the damage to their autonomy and dignity.

Looking back on my efforts in Cowichan general psychiatry, I have tried both options. I have legally enforced injections or seclusion on people in dangerous distress. This involuntary force can be harmful, even when necessary for safety. But how I spoke to them while I was doing this either preserved their dignity, when I spoke in a power-with way, or imposed a hurt they carried years after, if I spoke in a power-over way. And they all pushed back against me. The Collomb-like, humble partner, power-with way sustained me. When I tried the Fanon-described imposition, which Indigenous Elders proposed I stop, it corroded me and made me ill. I have many examples of happy, productive, and humble power-with integrations of psychiatry into community health organizations. For example, I helped develop a community of people experiencing mood disorders, who met weekly with the aim of supporting each other and educating each other as well as me. They learned leadership and ran the meetings; I attended as a special guest. Similarly, we hosted a community of people suffering psychotic disorders who took care of each other in the community. I hosted a successful exorcism on our psychiatry inpatient unit for a man with a devout Christian family. I had members of the Duncan Indian Shaker Church "sweep out" (spiritually cleanse) any room on the psychiatric inpatient unit for any First Nations person admitted there. Fortunately for me, there is more than one way of seeing things.[21]

Health care workers can adopt a position of power over their patients and teams, which Fanon described as colonialist psychiatric violence. That kind of health care is focused on rapid achievement of diagnosis and one-sided decisions about treatment and prognosis. Team members are treated as a subservient means of achieving the physician's will.

Don Berwick[22] described the omnipotent and supposedly omniscient "Era 1" medical practitioner of the 1950s to be later revealed as having caused unacknowledged morbidity and mortality, with the subsequent "Era 2" to be one of quality assurance measurements. Berwick proposes an "Era 3," keeping the best of Eras 1 and 2, but adopting humility and power sharing.

The Southcentral Foundation's Nuka System of Care[23] is a highly rated primary care system. It includes Alaskan Natives as "customer-owners" in operating their own health care system based on traditional Native values like respectful teamwork.

The Open Dialogue[24] approach is a Finnish family- and network-focused approach to mental health care, with transparent shared decisions. It values community treatment over hospitalization.

Like Collomb's community partnerships, these examples show the power-with approach to health care delivery to be superior. There are many similar reports.

Conclusions

There are well-described measures to be taken by scientific health care workers to achieve the objective of respectful shared power, including the Calls to Action of the Truth and Reconciliation Commission.[25] All Canadians should embrace the lifelong learning of cultural humility, in which we reflect on our biases and promote respectful relationships, and engage in cultural safety, where we recognize and strive to address power imbalance. These are the main tools we can use to avoid power-over practices and choose power-with practices instead.[26]

These tools from Indigenous Peoples, with awareness of the central value of dignity, apply to any health care system in the presence of less powerfully positioned people of any culture, but especially in Canada, a nation of many immigrants.

Adopting a power-with approach to health care delivery has implications for students, the selection of course content, and our continuing education path throughout our lifetimes.

It is a tragedy that people such as the First Nations senior with vertigo, mentioned previously, reject scientific health care because they do not feel safe with their practitioner. The hearing instrument practitioner replied to that man, "I had not thought of it that way. That is so unfair." ■

Acknowledgments

The author would like to express his indebtedness to many Indigenous Elders, and others. Some individuals he owes much to are Elder Linda McDonald, Elder Ann Maje Raider, Elder Ray Peter, Elder Donna Johnny, Elder Ruby Peter, Chief Shawn A-in-chut Atleo, Leader Heather Atleo, Dr Elder Roberta Price, Indigenous Knowledge Keeper Harley Eagle, and Elder Syexwáliya. He would also like to recognize Dr Terri Aldred for the energy she contributed to revising this article, encouraging clarity and enriching the message, during a time of great demands in her own life.

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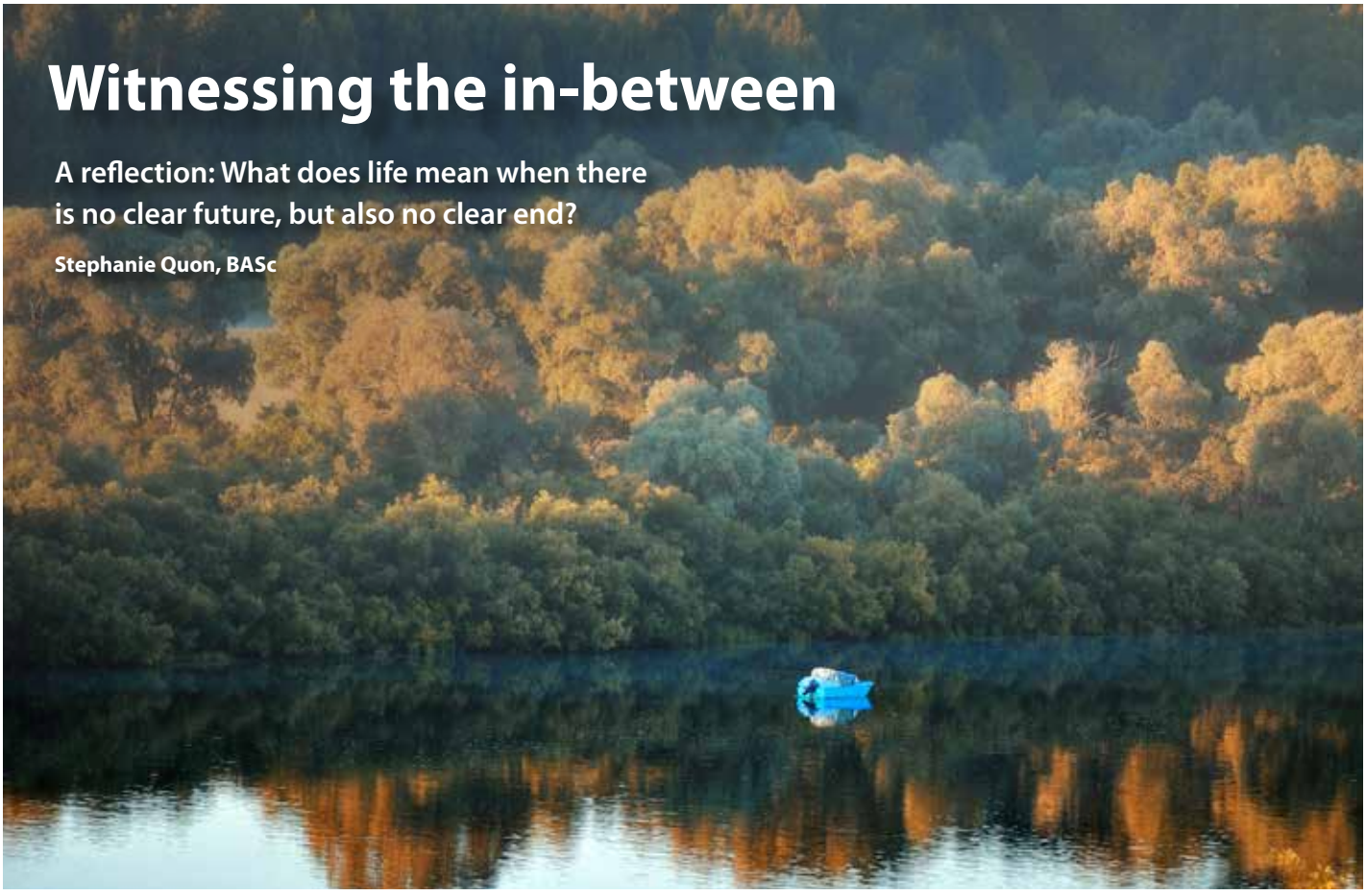

Witnessing the in-between

A reflection: What does life mean when there is no clear future, but also no clear end?

Stephanie Quon, BASc

When I met Robert,* most of the people around him had already said their goodbyes. He had been admitted to hospice after being told he had weeks to live, but by the time we spoke, 4 months after his discharge from a 3-month-long hospice stay, he was still alive. He was stable, and very much still here and waiting.

I was paired with Robert for the Legacy Project, where UBC medical students are paired with someone at the end of life to create a legacy piece. We made a spiral-bound booklet about Robert's life and his reflections.

Robert was 55. He had worked as a teacher in multiple countries, traveled extensively, and built a vibrant life full of adventure. He had written poetry, learned five languages, and built his own sailboat. His bright, dynamic history stood in stark contrast to the stillness of his current life.

Robert described feeling stuck in limbo, waiting to die. What does life mean when there is no clear future, but also no clear end? He shared that when someone tells you it is the end, you start to let go. You stop making plans. You say your goodbyes. You brace for closure. But then the days keep coming, slowly and quietly, with no script to follow.

For him, outliving his prognosis felt more like disorientation than grace. His plan was built around a timeline that had already ended, and he wondered how long he could keep affording the care he required. Through Robert, I witnessed what it means to live beyond a terminal prognosis: not dying, not recovering, but continuing in a quiet, heavy in-between.

The more I listened to Robert, the more I realized that the in-between is something we all experience. His version of it was shaped by age and illness, a terminal prognosis, and the anticipation of death. But in truth, we all live in some version of it. We live in the space between diagnosis and outcome, between certainty and change, between who we were and who we are becoming. We wait for results, for answers, for clarity. We make plans knowing they might fall apart. And even in perfect health, we carry a quiet awareness of the fact that life has no guaranteed trajectory. We all live between hope and fear. ■

Ms Quon is a second-year medical student in the Faculty of Medicine at the University of British Columbia.

** The name and identifying details in this reflection have been changed for privacy. Robert granted permission to share this story.*

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Presentation of pediatric cannabis ingestion in the emergency department

Cannabis toxicity should be considered in any child who presents with altered mental status, irritability, or ataxia, as well as nonspecific presentations.

Adam P. Sage, MD, MSc, Mohamed Alahmadi, MD, FRCPC, Vikram Sabhaney, MD, FRCPC, Jessica Moe, MD, FRCPC, MSc, MA

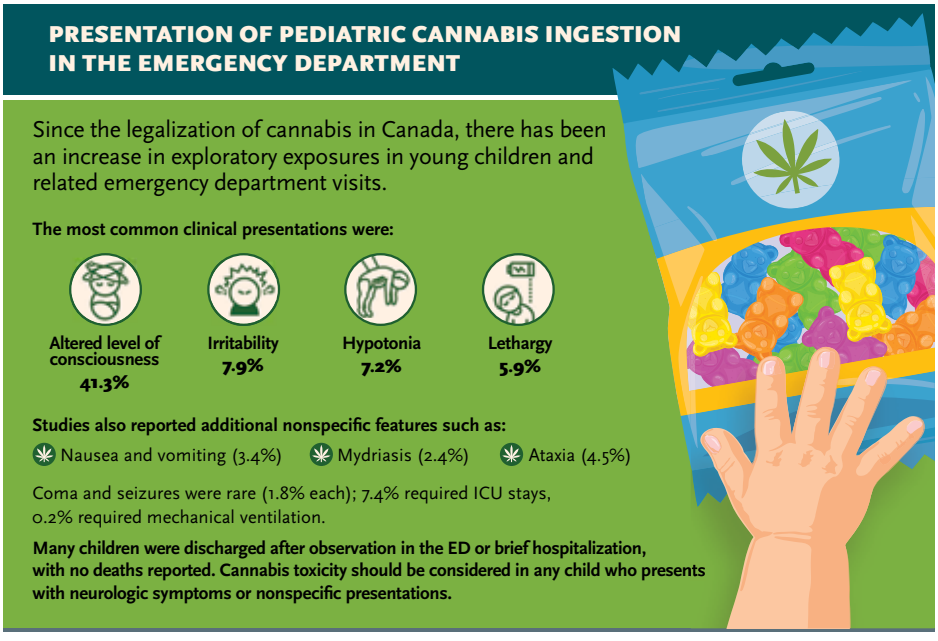
ABSTRACT

Background: Since the legalization of cannabis in Canada, there has been an increase in exploratory exposures in young children and related emergency department visits.

Methods: We synthesized published peer-reviewed studies on clinical presentations, management, and outcomes in children with unintentional exposure to cannabis. We reviewed the Medline and Embase databases for articles that discussed unintentional exposures to cannabis in children (≤ 18 years of age).

Results: We identified 429 articles, of which 46 met our inclusion criteria. Most patients (88.0%) ingested edible cannabis products, which included gummies, candies, chocolates, or baked products. The most common presentations included altered level of consciousness (41.3%), irritability (7.9%), hypotonia (7.2%), and lethargy (5.9%); however, additional nonspecific features such as nausea and vomiting (3.3%), mydriasis (2.4%), and ataxia (4.5%) were also reported. Serious presentations such as coma and seizure were infrequently reported (1.8% each), and some patients required mechanical ventilation (0.2%) or ICU stays (7.4%). Many children were ultimately discharged after observation in the emergency department or following brief hospitalization, and no deaths were reported. Urine toxicology screen was the most common method of confirming unintentional cannabis exposure (61.1%).

Conclusions: Cannabis toxicity should be considered in any child who presents with neurologic symptoms or nonspecific presentations. Prompt recognition may limit unnecessary extensive or invasive testing.



BCMJ 2025;67:318-323. Sage A, Alahmadi M, Sabhaney V, Moe J

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This article has been peer reviewed.

Background

The Cannabis Act, introduced for the purpose of deterring illicit activities and reducing the burden on the criminal justice system and the associated marginalization of specific groups, came into effect in Canada in October 2018 in a two-phase process.[1] One year after initial legalization of cannabis, access to cannabis products was extended from dried flowers, seeds, and oils to include edible cannabis products such as gummies and chocolates.[2]

Since the introduction of the Cannabis Act, there has been an increase in presentations to care—both ED visits and hospitalizations—due to unintentional cannabis exposure among children.[3,4] In Ontario, an increase from 0.8 to 9.6 cannabis-poisoning-related ED visits per 100 000 ED visits occurred between 2015 and 2019; a further increase to 18.1 cannabis-poisoning-related ED visits per 100 000 ED visits occurred in 2021, corresponding to a higher proportion of presentations related to the legalization and ingestion of edible cannabis products.[3] The higher burden of unintentional cannabis exposure since legalization is due in part to exploratory ingestions by children of often sweet-tasting and attractive-looking edible products.[5]

The psychoactive component of cannabis—tetrahydrocannabinol (THC)—is primarily responsible for CNS toxicity in pediatric exposures. THC is a lipophilic molecule that exerts its effects differently in children than in adults. Due to decreased adiposity and more localized arrangement of specific cannabinoid receptors in the brainstem, children experience more potent CNS effects compared with adults.[6,7] Further, because the onset of symptoms is often delayed up to 2 hours from the time of ingestion of edible cannabis products, children can continue to consume those products, leading to accumulation of high and very dangerous amounts of THC in the bloodstream.[8,9] Children with exposure to THC often present to care with nonspecific CNS symptoms, including altered level of consciousness, gait abnormalities, and seizures, as well as vital sign changes of tachycardia or respiratory depression.[10]

These features make unintentional cannabis exposure difficult to diagnose and subsequently to manage, which often results in increased hospital length of stay for observation.[11] Due to the increasing incidence of unintentional cannabis exposure, clinicians must be comfortable recognizing and treating cannabis intoxication in children. We reviewed the current published literature on unintentional exposure to cannabis in children and youth with the aim of providing a clinical resource for health care providers. To that end, we describe presenting signs and symptoms, management, and outcomes in pediatric patients with unintentional cannabis exposure.

Due to the increasing incidence of unintentional cannabis exposure, clinicians must be comfortable recognizing and treating cannabis intoxication in children.

Methods

Eligibility criteria

We included published peer-reviewed studies of children (≤ 18 years of age) with confirmed unintentional ingestion of cannabis. We required studies to describe the route of cannabis exposure, clinical signs and symptoms, investigations and medical interventions performed, and/or outcomes and disposition. We excluded narrative reviews and articles written in a language other than English.

Information sources and search strategy

We reviewed published articles in both the Medical Literature Analysis and Retrieval System Online (Medline; Ovid) and Embase (Ovid) databases, from their inception (Medline: 1946; Embase: 1974) to the date of our search (26 July 2022). We used Medical Subject Headings (MeSH), keywords, and author-assigned terms to identify articles that discussed unintentional cannabis ingestion in pediatric patients **[Tables S1 and S2]**. (All supplementary files are available at bcmj.org.)

Study selection and data extraction

We first screened article titles to remove duplicates, those not written in English, and those that did not discuss the effects of cannabis ingestion in humans. We then obtained the articles we identified for review from the University of British Columbia Library. We removed articles that were not available in the library's database; referred to an adult-only population or the intentional ingestion of cannabis; did not describe clinical presentation, treatment, or outcome; or were narrative reviews **[Figure S1]**. We then reviewed the full text of eligible articles and summarized it in relation to our study aim. **Table S3** presents a summary of these articles.

We present results as percentages of patients who were reported to be within a particular clinical category (e.g., symptom category) **[Table 1]**.

Results

Search results and population demographics

Our search strategy yielded 429 articles. On initial review of titles and abstracts, we removed 97 duplicate articles and another 245 articles based on our exclusion criteria. We reviewed the full text of 87 articles and included 46 of them in our final review, 16 of which were abstracts in press **[Figure S1, Table S3]**. The included articles were published between 1983 and 2022, six prior to 2012. Most articles were published in the United States (n = 22), followed by Canada (n = 7) and France (n = 7); a small number were published in Italy (n = 3), Ireland (n = 2), Algeria (n = 1), Australia (n = 1), Portugal (n = 1), Scotland (n = 1), and the United Kingdom (n = 1). The studies included retrospective cohort studies (n = 17), case

TABLE 1. Number and proportion of patients in included articles, with respect to specific variables discussed.

Variable	No. patients per variable (%)	Total no. patients in study	No. articles
Exposure route			
Edible products	15 979 (88.0)	18 179	27
Unknown	1 160 (6.4)	18 162	27
Inhalation	912 (5.9)	15 581	11
Signs and symptoms			
Altered mental status	2 127 (41.3)	5 145	32
Irritability	346 (7.9)	4 391	11
Lethargy	238 (5.9)	4 049	19
Nausea/vomiting	257 (3.3)	7 806	10
Coma	268 (1.8)	14 972	13
Seizure	212 (1.8)	12 040	19
Respiratory depression	258 (1.7)	15 012	16
Physical examination findings			
Hypotonia	353 (7.2)	4 902	15
Conjunctival injection	50 (4.9)	1 018	8
Ataxia	359 (4.5)	7 928	16
Tachycardia	362 (4.5)	8 111	18
Mydriasis	161 (2.4)	6 626	13
Hypotension	142 (1.2)	12 053	14
Bradycardia	99 (0.8)	11 792	7
Investigations			
Basic bloodwork	240 (71.6)	335	23
Urine drug screen	1 449 (61.1)	2 373	33
Chest X-ray	9 (36.0)	25	18
ECG	74 (26.8)	276	14
CT scan of head	88 (23.6)	373	15
Serum drug screen	270 (20.9)	1 291	23
Abdominal ultrasound	40 (14.7)	273	13
EEG	29 (10.5)	276	14
Lumbar puncture	50 (7.3)	685	15
Clinical trajectory			
Admission to ward	7 842 (43.5)	18 045	28
Observation < 12 h in ED	1 450 (29.9)	4 856	18
Admission to ICU	1 346 (7.4)	18 172	23
Management			
IV fluids	1 863 (11.4)	16 326	25
Supplemental oxygen	261 (1.9)	13 929	22
Medications (flumazenil or benzodiazepines)	194 (1.2)	16 045	23
Gastric decontamination (activated charcoal or gastric lavage)	323 (1.9)	16 989	23
Mechanical ventilation	30 (0.2)	17 719	30

reports (n = 15), case series (n = 11), a systematic review (n = 1), an observational study (n = 1), and a prospective cohort study (n = 1) **[Table S3]**. The articles summarized clinical presentations, treatments, and/or outcomes for a total of 21 885 patients. Patients' ages ranged from 2 months to 17 years; 44.9% were born female, 48.3% were born male, and 6.8% did not have their sex documented **[Table S3]**.

Exposure

Note: The studies we referenced in each clinical category discussed are referred to by roman numeral in the following text and are available at bcmj.org.

Of the 46 studies reviewed, 35 (n = 18 192 patients)[i] included a description of the route of exposure **[Table 1]**. Most patients (88.0%) ingested edible cannabis products,[ii] which included gummies, candies, chocolates, or baked products. Only 5.9% of patients experienced unintentional inhalational exposure,[iii] and 6.4% had confirmed exposure via an unknown route.[iv]

Clinical presentation

Most articles described symptoms associated with cannabis exposure in children (40 articles, n = 20 724 patients)[v] **[Table 1]**. The most common clinical presentations involved CNS symptoms: altered mental status (41.3% of patients),[vi] followed by irritability (7.9%)[vii] and lethargy (5.9%).[viii] Presentations that required critical intervention were less frequently reported: coma (1.8%),[ix] seizure (1.8%),[x] and respiratory depression (1.7%).[xi] With respect to non-CNS-related presentations, the studies described mainly gastrointestinal symptoms, specifically nausea and vomiting (3.3%).[xii] The articles infrequently discussed other symptoms noted at initial presentation, including blurred vision, headache, and decreased appetite. We did not summarize the frequency of these symptoms because of the limited number of patients involved.

Physical examination findings

Physical examination findings were described less frequently (32 articles, n = 20 097

patients) **[Table 1]**. The most common findings on examination were hypotonia (7.2%),[xiii] conjunctival injection (4.9%),[xiv] and ataxia (4.5%).[xv] Mydriasis was also present in 2.4% of children exposed to cannabis.[xvi] Vital sign abnormalities included tachycardia (4.5%),[xvii] hypotension (1.2%),[xviii] and bradycardia (0.8%).[xix]

Investigations, management, and clinical outcomes

Overall, investigations were more often related to the clinical scenario than to cannabis ingestion. Many articles either described patients who did not receive investigations or focused on clinical trajectory with no discussion of investigations. Of the 46 studies reviewed, 34[xx] included some description of investigations. These studies included 4916 patients, 22.5% of the total 21 885 patients described in the articles included in this review.

Urine toxicology screen was the most common method of confirming unintentional cannabis exposure (61.1%)[xxi] **[Table 1]**. A smaller proportion of patients underwent serum drug screening (20.9%), although the specific substances tested were rarely discussed.[xxii] Basic laboratory analyses (complete blood count, electrolytes, liver panel, C-reactive protein, and/or blood cultures) were performed in 71.6% of patients.[xxiii] The use of diagnostic imaging was infrequently reported. Chest X-rays (36.0%),[xxiv] abdominal ultrasounds (14.7%),[xxv] and CT scans of the head (23.6%)[xxvi] were performed in some patients. Lumbar punctures were performed on 7.3% of patients.[xxvii] Ancillary investigations included ECG (26.8%)[xxviii] and EEG (10.5%).[xxix]

In the 38 articles that described disposition for patients with unintentional cannabis exposure (n = 18 445 patients),[xxx] most patients were monitored either in the ED (29.9%)[xxxi] or on the ward (43.5%).[xxxii] A smaller proportion of patients (7.4%)[xxxiii] required admission to the ICU, most often for intensive monitoring.

Management specific to THC was not typically required; when reported (32 articles; 20 625 patients),[xxxiv] it was largely supportive. Intravenous fluids were administered in 11.4% of patients,[xxxv] and supplemental oxygen was used in 1.9% of patients.[xxxvi] Gastric decontamination with activated charcoal was used in 1.9% of patients,[xxxvii] and two single-patient case reports published prior to legalization reported the use of gastric lavage.[xxxviii] Medications were very rarely used and were targeted to the clinical scenario; benzodiazepines were used in cases of seizure (1.2%).[xxxix] The benzodiazepine antagonist flumazenil was reported to treat a single case of altered level of consciousness with no clear exposure history.[xl] Finally, 0.2% of patients required mechanical ventilation[xli] because of poor respiratory effort or severely altered level of consciousness.

Most pediatric cannabis toxicity presentations are related to accidental ingestion of edible cannabis products. Preventive strategies should be aimed at reducing the availability of these products to young children.

In all the articles reviewed, there were no cases of death resulting from unintentional cannabis ingestion. The articles focused on patients' presentation and course in hospital; there was limited discussion of long-term follow-up and outcomes.

Discussion

Our review included 46 articles that described nearly 22 000 pediatric patients who presented to care in the setting of unintentional exposure to cannabis. These children were exposed to cannabis primarily through accidental ingestion of edible cannabis products. The most common presenting symptoms and signs associated with exposure were altered mental status, irritability, lethargy, and hypotonia. A small subset of patients had more serious presentations, with seizure, coma, or respiratory involvement. Most patients were discharged after observation, either in the ED or in hospital. A relatively small proportion of patients required admission to the ICU, which was often out of a need for intensive monitoring due to seizure or a substantially altered level of consciousness. Management of cannabis exposure was largely supportive, with intravenous fluids or supplemental oxygen. Many patients had exposure confirmed through urine toxicology screen. Further investigations were performed sparingly, in less than 5000 patients. Despite this, some patients underwent invasive investigations, such as lumbar puncture or exposure to ionizing radiation from neuroimaging. Reassuringly, no cases resulted in death.

Due to the widespread legalization of cannabis in Canada and other countries, it is important for clinicians to feel comfortable recognizing and managing accidental cannabis intoxication in the pediatric population. Most pediatric cannabis toxicity presentations are related to accidental ingestion of edible cannabis products. Unsurprisingly, the literature indicates a temporal association between the introduction of edible cannabis products in Canada and increased numbers of pediatric ED visits for cannabis exposure.[6] Thus, preventive strategies should be aimed at reducing the availability of these products to young children, as highlighted by the Canadian Paediatric Society. This includes implementing strict labeling standards and package warnings, especially in relation to visually attractive forms of edible cannabis like candies and chocolate; creating promotional limitations, especially with respect to social media; and restricting access to cannabis near locations frequented by children.[12]

An added challenge for physicians in managing unintentional cannabis exposure in children who present to the ED is the consideration of child maltreatment or neglect. Canadian data on rates of unintentional cannabis exposure are limited. Globally, the literature suggests there are

high rates of referral to social services or child protection services for further assessment of neglect or maltreatment.[13] While some argue for widespread involvement of child protection services, others highlight the potential harm to families and exacerbation of sociocultural inequities inherent in current reporting structures. Recently, Raz and colleagues presented guidelines for practitioners on reporting to child protection services in cases of unintentional cannabis exposure, asking "1. Was this [truly] unintentional? 2. Did parents or guardians take steps to prevent ingestion, even if inadequate? 3. If the ingested substance was not THC, would this event be reportable? 4. What other factors contributed to this outcome?"[14] Taken together, the decision to report to child protection services should be based on the context of each case, in tandem with local reporting guidelines. For further guidance, the Government of British Columbia developed *The B.C. Handbook for Action on Child Abuse and Neglect*.[15]

Consistent with the pathophysiology of THC exposure in children, most patients presented with CNS findings. However, in our review, signs and symptoms of cannabis exposure were nonspecific; thus, it is important that clinicians maintain a high index of suspicion for cannabis exposure in children with nonspecific presentations. Urine toxicology can be used to confirm the diagnosis of THC exposure in children, because it has high sensitivity and specificity (both near 92%) for acute edible cannabis ingestions and a low proportion of false positives from secondhand cannabis smoke.[16,17] Given the varied presentations in unintentional cannabis ingestion, clinicians should inquire about access to substances when taking histories and consider including urine toxicology as part of the initial workup for children who present with altered mental status, irritability, and/or lethargy, particularly if there is an unknown or unclear history of ingestion. The investigations and therapies described in our review were largely case specific, indicating a lack of clear consensus in the literature. In cases of unintentional cannabis intoxication, the cornerstones of management are appropriate monitoring and supportive measures such as intravenous fluids and oxygen, as indicated.

Key findings and recommendations regarding cannabis exposure in children are summarized in the **Box.**

BOX. Unintentional cannabis exposure in children: Key findings and recommendations.

Clinical problem

- Increased access to and attractive marketing and formulations of cannabis products have resulted in increased unintentional cannabis exposure among children and associated visits to the ED.
- Symptoms and signs commonly associated with cannabis exposure are nonspecific.
- There is no exact dose–response relationship for cannabis, but oral bioavailability of tetrahydrocannabinol (THC) is higher in children than in adults.

Common presentation

- Symptoms: altered mental status, irritability, and lethargy.
- Signs: hypotonia, conjunctival injection, ataxia, and tachycardia.

Diagnosis and management

- In the absence of a clear exposure history, a high index of suspicion should be maintained in children with altered mentation. This may prompt recognition of cannabis exposure and limit excessive diagnostic testing.
- Urine toxicology is the method of choice for confirming cannabis exposure: it is sensitive, specific, and accessible.
- Blood investigations are nonspecific for cannabis exposure but may be helpful to exclude co-ingestions.
- Most children require supportive care and monitoring for respiratory compromise, seizure, or severe obtundation.
- Most children can be discharged after observation in the ED if they demonstrate improvement in symptoms; however, some may require admission to hospital.

Other considerations

- Consideration should be given to contacting child protection services on a case-by-case basis.
- Parents and guardians should be counseled on the safe handling and storage of cannabis.
- Legislation on access to and packaging of cannabis is required to prevent harms associated with exposure.

Study limitations

Our review was limited by the quality of the studies included, which retrospectively described clinical presentations, interventions, and short-term sequelae of unintentional cannabis exposure. Given their retrospective and short-term nature, most studies lacked comparisons to other causes of altered consciousness and did not describe long-term outcomes. To ensure a comprehensive review of the literature, we included case series, case reports, and abstracts in press. This introduced a potential bias toward the most symptomatic or severe presentations being included as case reports, which would overestimate the frequency of the symptoms and signs of unintentional cannabis exposure. Further, given the limited availability of published literature, our review included articles from

worldwide populations, some of which may not be immediately generalizable to the specific context of Canadian EDs. A review of presentations of cannabis poisonings in the BC Children's Hospital ED prior to legalization indicated that only 1.1% of poisonings treated at BC Children's from 2016 to 2018 were related to unintentional cannabis exposure; this highlights the need for ongoing surveillance in BC EDs.[18]

Conclusions

Unintentional exposure to cannabis is an increasingly prevalent clinical entity. Due to the nonspecific nature of historical and physical examination findings of unintentional cannabis exposure in children, cannabis toxicity should be considered in any child who presents with neurologic symptoms such as altered mental status, irritability, or ataxia, as well as nonspecific presentations. Prompt recognition may limit unnecessary extensive or invasive testing. Despite the rarity of serious complications, including respiratory depression and seizures, future studies should seek to better identify risk factors for children to develop these complications. Beyond recognition of cannabis intoxication, clinicians and policymakers should address prevention through advocacy, counseling, and guideline-supported interventions to limit unintentional pediatric cannabis exposures to prevent harms. ■

Competing interests

None declared.

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Incidental tumor retrieval during point-of-care-ultrasound-guided thoracentesis

Pathology examination of drainage contents from thoracentesis, especially in cases of suspected malignancy, could spare patients further invasive procedures.

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Clinical summary

While vacationing in Mexico, a woman in her 70s presented to primary care with a 6-month history of B symptoms, worsening dyspnea, and new-onset back pain. Her medical history included treated ductal carcinoma in situ and a 50-pack-year smoking history. Diagnostic imaging revealed liver, lung, and bone lesions. A liver biopsy was inconclusive, identifying only an undifferentiated carcinoma of unknown primary. The woman was advised to return to Canada for ongoing investigation.

FIGURE 1. Initial chest X-ray showing a large left pleural effusion.

Upon presentation to a Canadian emergency department, the woman was hypoxic and minimally ambulatory. Chest X-ray showed a large left pleural effusion **[Figure 1]**. CT imaging showed a large left pleural effusion, multiple spiculated nodules in the left lung, mediastinal lymphadenopathy, and liver lesions **[Figure 2]**. Tumor markers CEA, CA 15-3, CA 19-9, and CA-125 were elevated.

Given these findings, a diagnostic and therapeutic bedside point-of-care-ultrasound-guided thoracentesis was performed. The imaging revealed a bulky and

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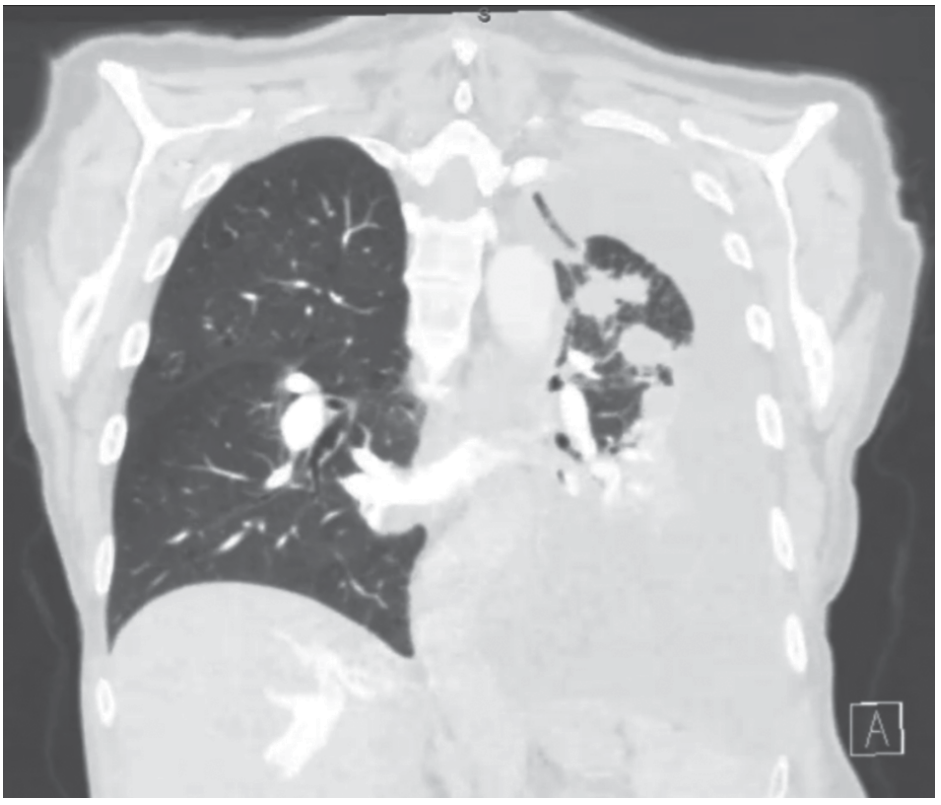

FIGURE 2. CT image demonstrating a large left pleural effusion, spiculated lung nodules, mediastinal lymphadenopathy, and liver lesions.

FIGURE 3. Point-of-care ultrasound scan showing debris within the pleural fluid, suggestive of an exudative effusion.

ragged pleural membrane at the apex of the left lung, with a consolidated lung edge floating in a hypoechoic pocket of pleural effusion with evidence of swirling debris suggestive of an exudative process **[Figure 3]**.

After drainage of 1.2 L of serosanguinous fluid, a 3 to 4 cm globular fibrous tissue fragment was noted in the collection bag and was sent for analysis **[Figure 4]**. The patient's hypoxia improved postprocedure. No pneumothorax was observed in the postprocedural chest X-ray.

Histopathology of the retrieved tissue confirmed metastatic pulmonary adenocarcinoma. A subsequent PET scan confirmed widespread metastases. The patient opted for palliative care and died shortly after diagnosis.

This case highlights an unusual yet valuable diagnostic outcome of thoracentesis. Tumor tissue incidentally retrieved during fluid drainage led to a rapid diagnosis, sparing the patient further invasive procedures. Proceduralists may consider pathology examination of drainage contents, especially in cases of suspected malignancy. ■

Patient consent

Consent for the use of the patient's images was obtained from the patient's substitute decision-maker in accordance with institutional and ethical guidelines. The substitute decision-maker provided informed consent after being fully apprised of the purpose and scope of the publication.

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FIGURE 4. Mass collected during thoracentesis.

Ethical considerations around the use of artificial intelligence in health care

As artificial intelligence (AI) becomes increasingly integrated into health care, it is essential for clinicians to remain vigilant regarding its ethical use. Without appropriate oversight, AI can inadvertently perpetuate or amplify health disparities, including racial inequities.[1] A recent policy statement from Doctors of BC emphasizes the importance of examining the ethical dimensions of AI tools.[2]

Clinicians who are well informed about AI and use it in an evidence-based manner can help reduce the associated ethical risks. The quality of an AI system depends on the quality of the data it is trained on. Data sets may suffer from availability bias, often mirroring present-day health care inequities. One study found that AI chest X-ray prediction models consistently underdiagnosed Hispanic women and other underserved populations.[3] This shows how structural bias can become hidden in AI algorithms over time.

To build more equitable systems, it is important to involve equity-deserving populations in both the design and validation of AI tools. With Indigenous communities, data sovereignty should be respected, and partnerships should be established to explore how to implement AI in culturally appropriate ways. Similarly, rural communities, older adults, and people with disabilities may face distinct barriers in accessing AI tools. Including perspectives from people in these groups in AI model development ensures that models are shaped by the populations they are meant to serve. It is also crucial to recognize that some patients may be uncomfortable with or not have access to AI systems. Therefore, providers should proactively develop alternative care plans to ensure equitable access for all patients, respecting individual preferences and needs.

Clinicians who are well informed about AI and use it in an evidence-based manner can help reduce the associated ethical risks.

AI serves as a valuable adjunct to providers' decision making. Like other established diagnostic tools, AI should be employed with a clear understanding of its strengths and limitations. Investment in AI literacy is also essential to ensure fair access to care. Clinicians are encouraged to pursue continuing education on AI in health care, including accredited online courses from providers such as Coursera (www.coursera.org/search?query=artificial%20intelligence), to remain current with evolving technologies. Health care organizations should prioritize training for providers unfamiliar with these tools with an emphasis on ethical considerations. This will help bridge the digital divide, as AI uptake is currently concentrated in younger, more experienced individuals living in urban centres.[4]

When using AI-driven platforms, providers should:

- Rely on evidence-based sources such as OpenEvidence (www.openevidence.com) for clinical information.
- Double-check references and validate outputs from AI platforms.
- Formulate prompts that specify the health care provider's role, the patient population, and pertinent clinical details to improve the relevance of AI-generated responses.

Here is an example of an effective prompt: "I am a family physician in Vancouver. What is the best antihypertensive medication for my 55-year-old Indigenous patient with comorbidities including heart failure and chronic kidney disease? Search PubMed for relevant publications and provide references for your answer. Select medications covered by non-insured health benefits."

Finally, we must advocate for greater accountability among AI companies, which share responsibility for the impact of their tools. The key issue is transparency, specifically around how data is sourced, processed, and stored. Not only is transparency the cornerstone of more inclusive AI models, but it also fosters trust in how one's information will be used.

As AI continues to evolve, its potential should be recognized but also matched with a commitment to ethical integration. By prioritizing education, accountability, and community involvement, we can leverage AI to provide quality patient-centred care across all BC communities. ■

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Continued on page 328

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Youth suicide and self-harm by medications in BC: The role of means restriction

Means restriction is an evidence-based intervention that limits access to lethal means of suicide and serious self-harm. These interventions can form part of a comprehensive mental health and well-being strategy, which is particularly important given the recent decline in self-reported positive mental health and increase in self-harm indicators among youth in BC.[1]

Research indicates that greater availability of and access to lethal means of suicide and self-harm increase both population and individual risk of suicide, whereas restricting or limiting access decreases suicide rates, without evidence of suicide displacement (i.e., people considering suicide do not choose alternative means of self-harm as a result of means-restriction efforts).[2,3] Examples of means-restriction targets include firearms, jumping sites, and medications.

To inform suicide prevention efforts, a review was conducted of BC youth (10- to 24-year-olds) self-harm hospitalization data. Poisoning was identified as the leading cause of youth self-harm hospitalization, particularly among females **[Table 1]**. External causes of self-harm hospitalization (e.g., sharp objects, hanging, jumping) were significantly lower than poisoning. Although intentional poisoning contributes significantly to youth self-harm hospitalization in BC, it is not a top cause of death by suicide.

A review of BC Drug and Poison Information Centre data identified the most common substances involved in youth self-harm calls **[Table 2]**. The leading classes/types of medications in the calls about youth self-harm were acetaminophen, selective serotonin reuptake inhibitors, ibuprofen, and antipsychotics. This is likely because of their relative availability to youth. Antidepressants, mood stabilizers, and anti-anxiety medications are commonly prescribed to

TABLE 1. Leading causes of youth self-harm hospitalization in BC, 2012–2022, by sex.

Mechanism of intentional self-harm	Total count (%)	Female count (%)	Male count (%)
Antiepileptic, sedative-hypnotic, anti-Parkinsonism, and psychotropic drugs	4 133 (36.3)	3 253 (36.6)	880 (35.0)
Nonopioid analgesics, antipyretics, and antirheumatics	4 116 (36.1)	3 434 (38.7)	682 (27.1)
Other and unspecified drugs, medicaments, and biological substances	1 005 (8.8)	824 (9.3)	181 (7.2)
Sharp objects	816 (7.2)	550 (6.2)	266 (10.6)
Narcotics and hallucinogens	332 (2.9)	180 (2.0)	152 (6.1)
Other and unspecified chemicals and noxious substances	300 (2.6)	240 (2.7)	60 (2.4)
Alcohol	158 (1.4)	121 (1.4)	37 (1.5)
Hanging, strangulation, and suffocation	147 (1.3)	72 (0.8)	75 (3.0)
Other drugs acting on the autonomic nervous system	101 (0.9)	70 (0.8)	31 (1.2)
Jumping from a high place	97 (0.9)	40 (0.5)	57 (2.3)
Other mechanisms (sex-stratified counts of 29 or less)	185 (1.6)	94 (1.1)	91 (3.6)
Totals	11 390 (100)	8 878 (100)	2 512 (100)

TABLE 2. Leading medications and substances involved in youth self-harm, BC Drug and Poison Information Centre calls, 2013–2024, by sex.

Medication or substance type	Total count (%)*†	Female count (%)	Male count (%)
Acetaminophen	5 486 (27.2)	4 582 (28.2)	904 (23.9)
Selective serotonin reuptake inhibitors	5 149 (25.6)	4 320 (26.6)	829 (21.9)
Ibuprofen	2 441 (12.1)	2 120 (13.0)	321 (8.5)
Antipsychotics	2 298 (11.4)	1 818 (11.2)	480 (12.7)
Beverage alcohol	1 846 (9.2)	1 416 (8.7)	430 (11.4)
Atypical antidepressants	1 323 (6.6)	1 054 (6.5)	269 (7.1)
Benzodiazepines	1 150 (5.7)	877 (5.4)	273 (7.2)
Diphenhydramine	975 (4.8)	802 (4.9)	173 (4.6)
Methylphenidate, amphetamine, and related compounds	862 (4.3)	644 (4.0)	218 (5.8)
Anticonvulsants	810 (4.0)	654 (4.0)	156 (4.1)
Other medications or substances	7 868 (39.1)	6 243 (38.4)	1 587 (42)
Totals	20 139 (100)	16 253 (100)	3 781 (100)

* Medications or substances with total counts of 800 or more are shown in this table.
† Counts and percentages add to greater than the total due to cases with more than one medication or substance.

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

youth for the management of depression and anxiety and were commonly involved in self-harm calls. Youth who are at greater risk of suicide and self-harm are more likely to have access to these medications than the public. Several of the top culprit medications, such as acetaminophen, ibuprofen, and diphenhydramine, are available over the counter and can be accessed in large quantities by the Canadian public.

These findings highlight opportunities for prescribers, policymakers, and the public to reduce the risk of youth self-harm and suicide. Potential actions include incorporating safety considerations into prescribing guidelines, modifying prescribing practices for higher-risk patients, and providing education to patients and families on safe medication storage and disposal. Means-prevention interventions for over-the-counter medications in other jurisdictions can inform local approaches. For example, the United Kingdom introduced legislation in 1998 to limit over-the-counter acetaminophen package sizes, resulting in a 43% reduction in suicide deaths due to acetaminophen over 11 years.[4]

Limiting access to a lethal supply of medications is an evidence-based approach to prevention of youth suicide and self-harm. Greater awareness of the epidemiology of medication self-harm can inform strategies to reduce youth self-harm. ■

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COHP

Continued from page 326

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A healing journey

Using the stories we tell—stories of our healing processes—to obtain insight into our lives and an enhanced sense of well-being.

Cecil Hershler, MD

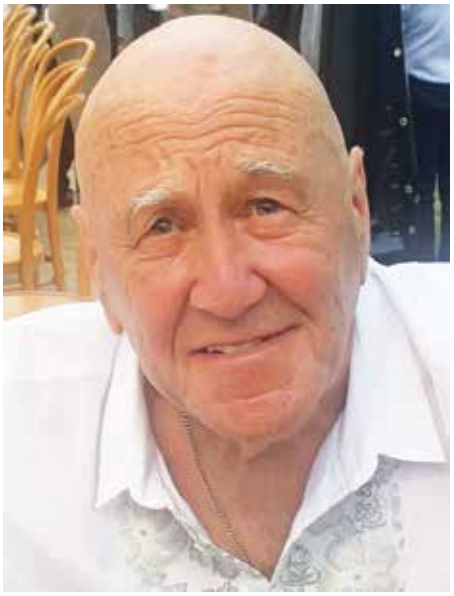
When I immigrated to Canada from South Africa in 1974, I was ashamed to talk about my birth country. My shame came from being born into privilege—a young middle-class White boy in a racially segregated apartheid country. In the early 1980s, in the middle of my residency in physical medicine and rehabilitation, while still at McMaster University, I attended a concert at the Hamilton Centre for Civic Inclusion. The main draw was Ann Mortifee, a well-known and acclaimed Canadian singer. In the concert program, I read that Ms Mortifee had also been born in South Africa. Intrigued, I went to the stage door after the show and introduced myself to her. After a brief conversation, she invited me to visit her when I next came to Vancouver. In 1985, after I completed my training, my family—now with four children—relocated to Vancouver.

In 1987, I attended a 4-day workshop at the Hollyhock Retreat Centre on Cortes Island facilitated by Ms Mortifee. It was called Releasing the Inner Voice. I thought it would be about releasing inhibitions about singing. It turned out to be more about expressing one's emotions related to feeling inhibited. Singing on one's own or in a group was one way to encourage this release.

During one lunch break, I went for a walk in a nearby forest and got lost in the gloom of the trees and bushes. I felt desperate. I was constantly on the wrong path and hitting dead ends. I didn't know if I would get out. After stumbling around and trying different paths, I finally found my way out of the trees and into the sunlight. I felt a great sense of relief.

I rejoined the workshop 30 minutes late. Embarrassed, I tried to explain my late arrival to the group. It was then that something strange occurred. To this day, I cannot explain it. It was not logical. I became The Blind Deerhunter. My first name, Cecil, is based on the English root for *blindness*, while Hershler is derived from the word *hirsch*, which means *deer* in German and can be interpreted as *deer hunter*. I am, by nature, reserved. I have always been drawn to rational and logical ways of speech and thought. I enjoy and appreciate the beauty of mathematics and the way it explains physical phenomena. But, on that day, I described my experience using metaphor. I had never done this before. My getting lost in the forest and finding my way out became the blind deer hunter's journey to a "vision." This vision was not the same as seeing in the physical sense.

It took over 20 years of experiencing privilege in South Africa before I realized the injustice and unfairness of the apartheid system. The meaning of my name resonated with my lack of awareness of the inherent racism and discrimination of apartheid during those years. The apartheid system left a legacy of inequality that we are still dealing with today. I related the adventure of my forest wanderings in a mythic way. Through the metaphor, I saw the pattern of my life more clearly. The experience had a healing or therapeutic potential. I was impressed by how I felt as a result of both being in the workshop and the mythic telling of the story. If I could gain insight and closure by expressing my feelings metaphorically, then I felt others could do the same, albeit in different contexts.



Dr Cecil Hershler

After the workshop, Ms Mortifee and I met on several occasions and discussed repeating her workshop with participants who were challenged by a physical disability. We invited some of the people I was seeing at my medical clinic to a pilot workshop we ran in Vancouver in 1988 called Facing the Challenge with Song, funded by the Rotary Club of Vancouver. For one weekend, Ms Mortifee led 20 people, eight of whom had physical disabilities, and their friends or family members, in

Dr Hershler is a physician, storyteller, poet, and actor. After immigrating to Canada in 1974, he maintained links with his birth country, South Africa, by creating a charitable foundation with his wife Ruth to work with poorly resourced and disadvantaged youth in South Africa as well as Indigenous youth in Canada. Dr Hershler is now retired after 40 years as a physician specializing in physical medicine and rehabilitation.

exploring the therapeutic potential of singing. After the workshop, all the participants felt an enhanced sense of well-being. In this workshop, I saw that music and song could help people express emotions of fear, grief, and even anger, but also go beyond those emotions and become aware of their strengths and find hope even when a situation appeared bleak.

We then began to plan a more ambitious workshop involving several expressive arts. We named our collaborative project the Healing Journey. At the heart was an intuitive feeling that people could be assisted in their healing process by using artistic approaches such as music, song, art, theatre, and storytelling or writing to retell the story of their pain or chronic illness. If the retelling involved metaphor or myth-making, all the better.

Dr Cecil Hershler and Ms Ann Mortifee during a Healing Journey workshop in 1992.

Both Ms Mortifee and I felt that we could all benefit from claiming and valuing the artistic side of ourselves and that it would change attitudes toward disease, illness, physical disability, and mental health. It was an attempt to look more closely at the concept of healing.

In 1992, I was fortunate to obtain approximately $100 000 from the BC Health Research Foundation to undertake this research. The experiment took the form of three weekend workshops in which drama, singing, and storytelling were interwoven. The Healing Journey was based on *The Hero's Journey*, as described by Joseph Campbell.[1] Each weekend had a purpose (both real and mythic): the leave-taking, the trials, and the homecoming. The use of a mythic journey as a metaphor gave participants the chance to experience themselves as they were—permission to be what they could not be in life. Enacting the metaphor gave participants the opportunity to stretch out, let go of inhibitions, and open up repressed personalities.

The central participants were physically challenged in some way—paraplegia, post-polio syndrome, AIDS, chronic fatigue syndrome, cancer, scleroderma, or Crohn disease. Each was accompanied by a family member or friend and a health care professional, forming triads that worked together with the idea that the workshop would support growth in their long-term relationships.

To facilitate the drama component of the workshops, Ms Mortifee and I chose Trish Grainge, a clinical counselor, a professional actress, and one of the few registered drama therapists practising in Canada. In the Healing Journey, the triad of "elders," or facilitators, was Ms Mortifee (song), Ms Grainge (drama), and me (story). The health care professionals in this project were two family physicians, a psychiatrist, a nurse, a music therapist, an occupational therapist, and a massage therapist. The workshops were filmed by Vancouver-based Ark Films, and participants answered a list of questions on video before and immediately after completing the three workshops, then again 6 months later.

An expert review panel led by psychologist Dr James (Jim) Frankish of UBC's Department of Health Care and Epidemiology prepared the questions and evaluated the participants' responses as well as the questionnaires they filled in at the same time.

Finally, the hundred hours of film were edited into a video, also called *The Healing Journey*, which is available with a study guide as a learning tool for therapists and facilitators. To receive a copy of *The Healing Journey Study Guide* (in booklet form), email chershler@gmail.com.

When test results were examined 6 months after the workshops, all of the participants' results on a standard quality of life questionnaire were higher, but the one statistically significant test result was an improvement in mood reported by the health care professionals.

Postproject

After the Healing Journey project, I felt different and began to tell stories of my childhood in a public fashion at storytelling festivals, storytelling evenings, and community events, and I even acted in a South African play in 1997.[2] I realized that for almost 20 years after leaving South Africa and arriving in Canada, I had not spoken much about my childhood. I had felt inhibited and ashamed to speak about my years growing up as a privileged White person in a racist system.

The first story I developed concerned what I thought was a betrayal of a childhood friendship with a Black South African, Sidwell. Sidwell was the head waiter at a hotel owned by my parents. When I was a child of 5 years, Sidwell had taught me a hand gesture—a fist with the thumb projecting between the index and middle

fingers—which I had interpreted as acceptance and friendship. In fact, Sidwell had put me on his shoulders and danced me around in celebration. As a teenager in a private White school in South Africa, I learned that this gesture was, in fact, used in a demeaning and derogatory manner (similar to giving someone the middle finger). This made me angry: I felt Sidwell had betrayed our friendship.

Thirty years after coming to Canada, I descended off a plane onto the tarmac in Rio de Janeiro to discover multiple carvings of Sidwell's hand gesture in brass, wood, and stone in the arrivals hall. From a souvenir seller, I learned that the hand gesture was a sign of both good luck and protection. The hand warded off evil spirits and enhanced strength and fertility, and solid replicas had been in the possession of slaves when they were forcibly abducted from West Africa to South America. As I stood there, tears in my eyes, my sense of betrayal dissolved, and I believed that Sidwell had given me, a small White child, his protection and friendship.

In 2002, my wife Ruth and I created a charitable foundation, Education without Borders (https://educationwithoutborders.co), which supports poorly resourced and disadvantaged schools in the Western Cape region of South Africa. I committed afresh to reestablishing a link with South Africa. For over 15 years, assistance has been given to hundreds of students in mathematics and English literacy, and this June, Education without Borders received its first-ever grant to implement in-school gender-based-violence workshops specifically aimed at assisting young teenage girls in South Africa in developing defences against sexual abuse.

The Healing Journey also led to a change in how I practised medicine. I introduced the rose and thorn program into my clinical practice for one afternoon per week. It was a program dealing with chronic pain management in a group of patients with fibromyalgia using journal writing (with professional writer Dale Adams Segal); storytelling (with me); and guided imagery, relaxation, and gentle movement exercises (with physiotherapist and counselor Eva DiCasmirro).

The intention was not only to provide the patients with pain management tools and strategies, but also to restore their dignity and sense of agency in relation to their pain and illness. The patients attended consistently and reported an improvement in mood and pain management over the years. The group ran for 10 years.

I believe the stories we tell are stories of our healing process. If we can create myths based on our own unique events and stories—even stories of pain and illness—we will obtain increased insight into our lives and an enhanced sense of well-being. ■

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BCMJ 2025 reader survey results

Readers expressed a passion for print and an appreciation for local content.

***BCMJ* staff**

In June 2025, Doctors of BC members (approximately 24 700 active and retired physicians) had the opportunity to complete the 2025 *BCMJ* reader survey. The *BCMJ* Editorial Board and staff rely on the survey results to learn what readers value and to receive readers' ideas for changes and improvements to the journal.

Surveys are conducted every 3 to 5 years, and in every survey since 2002, respondents have expressed that the *BCMJ* is an important forum for physicians to learn about what's happening in medicine in BC. This year, when readers were asked to rank the most important features of the journal, this aspect was the winner by a landslide. The survey also showed a remarkable trend in increased loyalty to the publication. Members are reading more of the *BCMJ* now than they have in the past: the percentage who read between 50% and 100% of an issue has gone up from 48% in 2022 to 67% in 2025 **[Figure 1]**. Additionally, respondents are reading the journal more frequently: 62% of members responded that they "always" or "usually" read the *BCMJ*, compared with 40% in 2022 **[Figure 2]**.

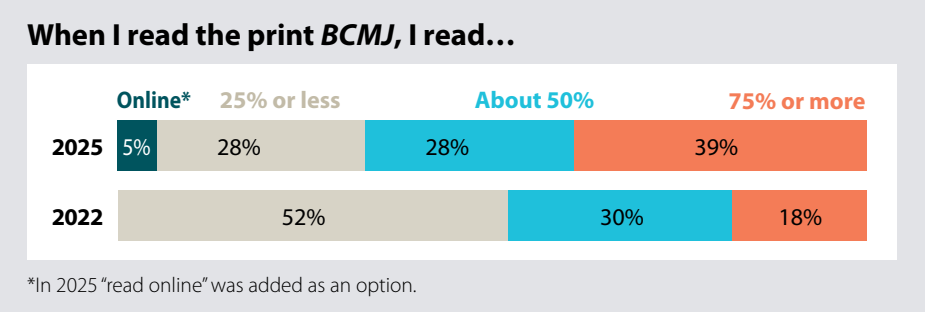

FIGURE 1. How much of the *BCMJ* survey respondents are reading in 2025 versus 2022.

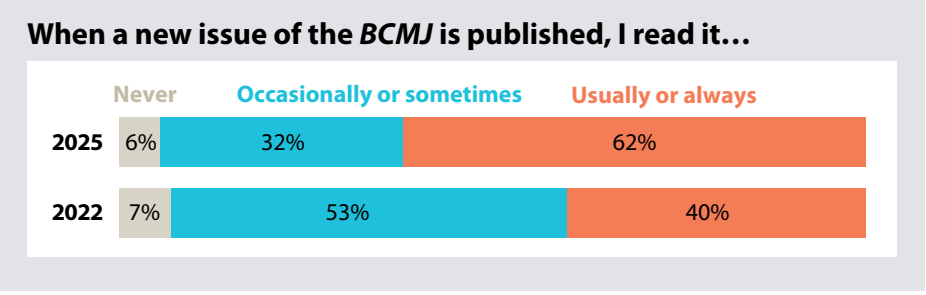

FIGURE 2. How frequently survey respondents are reading the *BCMJ* in 2025 versus 2022.

Print remains popular

Support for print has been another consistent trend over the years. In her editorial in this issue, *BCMJ* Editor-in-Chief Dr Caitlin Dunne offers her theories about why this may be the case. This year, 83% of respondents said they preferred to read the journal in print rather than online (vs 82% in 2022). Of the 17% who read online, the majority tended to be younger: 36% were under 35 years of age, and 26% were between 35 and 44 years of age. Conversely, younger respondents were least likely to continue reading the *BCMJ* if it were available only online. Only 16% of respondents under 35 years of age strongly agreed that they would read an online-only journal, as opposed to 31% of respondents who were 65 years of age or older.

Favorite things

Hundreds of survey respondents (n = 441) also shared their candid feelings about the *BCMJ*, and those comments were organized into themes to bring trends to the surface. Respondents expressed appreciation for the journal's BC focus (27%), local updates (16%), and provincial/regional content (6%). Certain categories of content emerged as clear favorites: practice updates and guidelines (13%) and medical research and clinical articles (10%). Respondents also valued being part of the journal's physician community (15%) and recognized the journal's aesthetic appeal (11%). Two percent of the comments about respondents' "favorite things" had a negative sentiment.

Ideas for improvement

The journal also welcomed constructive feedback. Of the 298 respondents who offered ideas for how the journal could improve, 7% suggested the journal should reduce its political correctness, 5% critiqued the journal's diversity of perspectives, and 4% suggested the journal should reassess

its mission. In a similar vein, 5% suggested that clinical content be enhanced, 5% offered criticisms of the journal's editorial decisions, and 3% suggested improvements to the journal's peer-review standards. The journal's format and delivery emerged as another theme in the comments, with the most frequently arising request being to "keep print" (18%), while 4% of respondents supported a switch to online only, and 3% requested improvements to the accessibility of the journal's online content. We report on very low numbers (in the 3% to 7% range) out of respect for our readers and for the sake of transparency. Some of the suggestions for improvement are already under consideration as part of the journal's ongoing work toward becoming an indexed publication. Twenty-seven percent of respondents reported that they had no suggestions for improvement.

New features

When asked if the *BCMJ* should add any new features (from a list of options), respondents were most interested in the journal becoming indexed (408 votes) and adding an app (404 votes), and less enthusiastic about video (244 votes) and audio (210 votes) features. In response to another question, many readers expressed an interest in receiving certified self-learning credits for reading the *BCMJ* (50% of respondents agreed or strongly agreed, and 33% were neutral).

The *BCMJ* Editorial Board and staff thank everyone who provided feedback in the 2025 reader survey. Keep an eye out for updates about changes and improvements to the journal based on your feedback. ■

Survey methodology
Online survey, 795 responses
Margin of error: +/– 3.42%
Response rate: 3%
Conducted by TWI Surveys,
9 June to 4 July 2025

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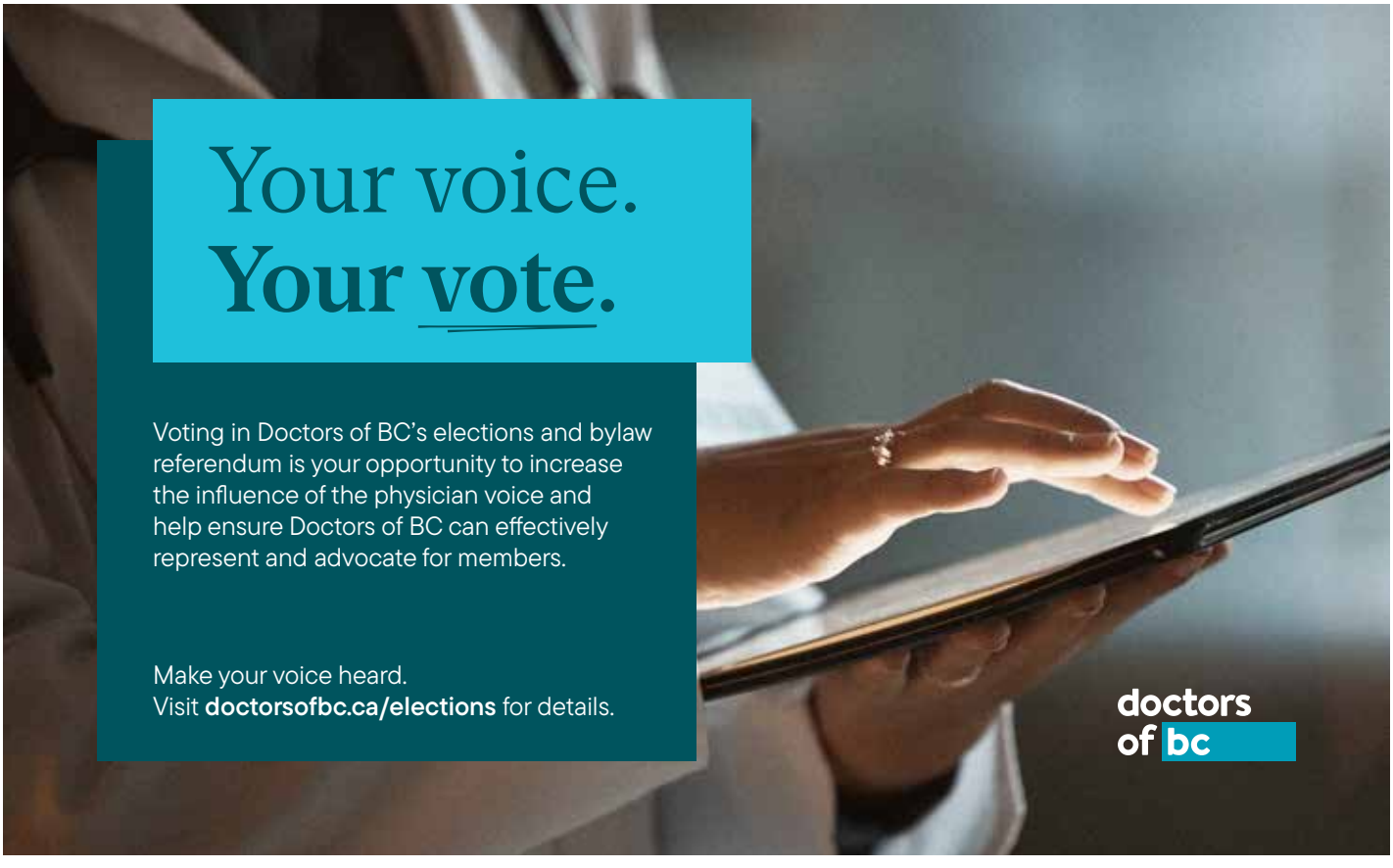

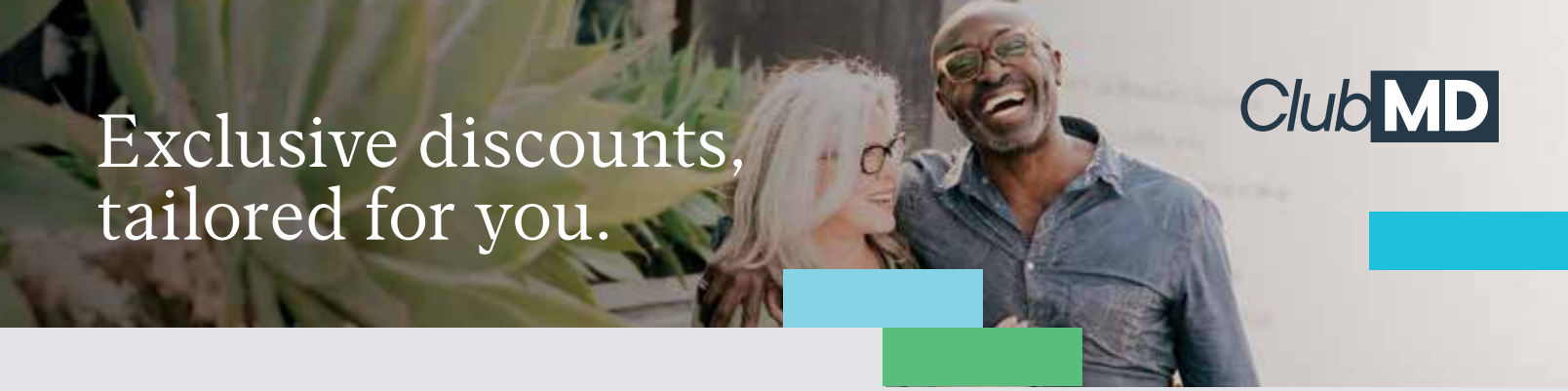

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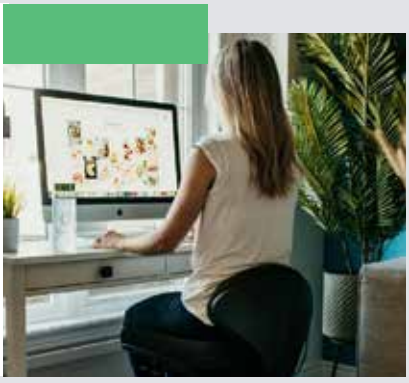

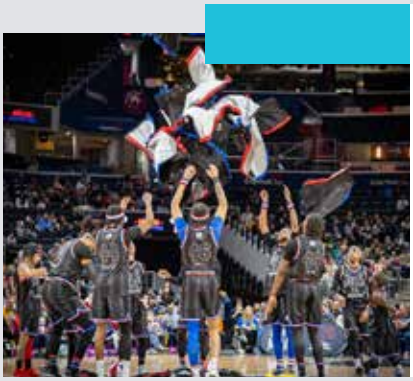

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