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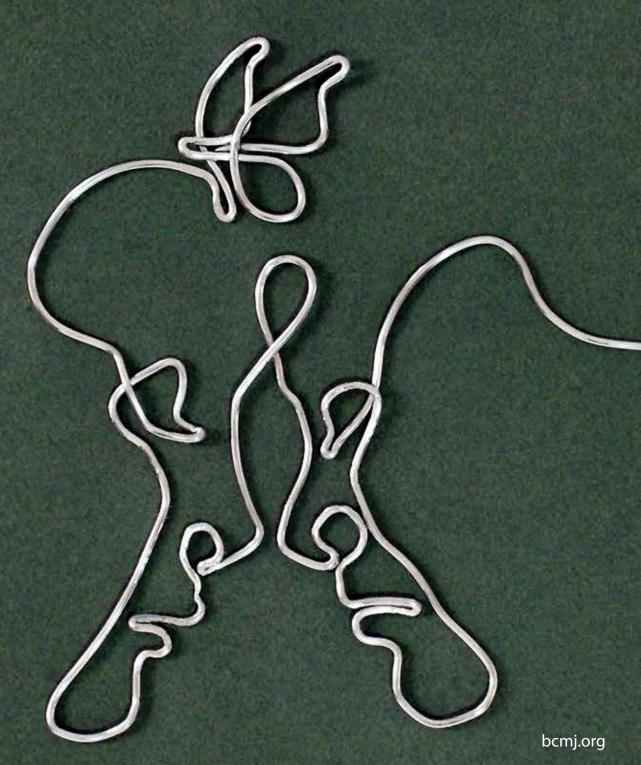
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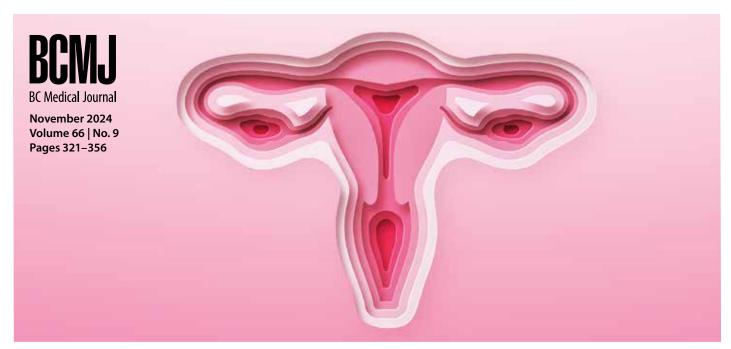
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Mission: The *BCMJ* is a general medical journal that shares knowledge while building connections among BC physicians.

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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Caitlin Dunne MD

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PPPD = provincial privileging process and dictionaries

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My body, dissected

n my first month of medical school, I met with my facilitator to review my evaluation for the block. She advised me that I needed to watch what I wore, that I was not like other girls in my class. She gestured that their bodies were straight up and down and that I was much curvier, and if I didn't watch what I wore, people wouldn't take me seriously. "Just be careful" were her final words.

I wish I had shrugged it off and claimed my body as my own. Instead, I internalized the message that "you, and your body, are bad," which caused intense fear and anxiety about how I was perceived. This is not uncommon for women, and as an Indigenous woman, it reinforced painful biases and internalized beliefs.

The lack of body autonomy, erasure, and intergenerational trauma causes Indigenous women to internalize shame and a belief that they are wrong or bad. When these beliefs are reinforced by the systems and structures that form our society, the results are toxic. This is reflected in the findings of the In Plain Sight report: "It was also representative of what has long been known, and was re-affirmed by this Review—that there is an intersection of Indigenous-specific racism with misogyny and gender discrimination that has resulted in Indigenous women and girls being distinctly and disproportionately subject to risks and harm."1 The report went on to identify that Indigenous women and girls were more likely to experience misogynistic stereotyping, including sexualization, presumed promiscuity, pathologizing, and devaluing of their bodies. In addition, the report reaffirmed that Indigenous women were disproportionately impacted by poorer health than their male counterparts and that the health gap between Indigenous women and non-Indigenous women was greater.1

These biases led to Indigenous women being stripped of their body autonomy for

generations. Colonial institutions, laws, and policies assumed control over Indigenous bodies and resulted in the forced and coerced sterilization of Indigenous women; the apprehension of Indigenous children; and an epidemic of missing and murdered Indigenous women, girls, and

The lack of body autonomy, erasure, and intergenerational trauma causes Indigenous women to internalize shame and a belief that they are wrong or bad.

LGBTQIA2S+ people. This is contrary to many Indigenous beliefs and practices that hold up women as life givers, matriarchs, medicine women, and leaders in their communities. Indigenous women had distinct teachings, practices, and medicines that were outlawed and replaced with misogynistic laws and institutions that subjugated them within their own communities.

In addition to acquiring control over Indigenous women's bodies, further harms were caused by excluding Indigenous women from archaeological and cultural research that was carried out from the time of contact by predominately White, male, English-speaking individuals. This is tragic, as most of our First Nations were matriarchal people, which shaped our culture and languages. These practices of erasure resulted in little being preserved after our populations were decimated and has made it harder to revive and reclaim our traditions, which could support healing.

The report *Reclaiming Power and Place*, findings from the National Inquiry into Missing and Murdered Indigenous Women and Girls, captures many of the injustices

referenced here and the steps that are needed to address them.² There are 231 calls for justice, and 16 of them pertain to health. They include the need for wraparound trauma-informed care, training and education for health providers, health services that are co-developed with Indigenous people, and revitalization of traditional women's medicines.²

Physicians have the opportunity every day to support body autonomy with informed consent. For example, when I obtain consent before doing a pelvic exam, I explain what the exam is for, that I can pause or stop the exam at any time, and that we can always reschedule. I remind women it is their body, and they are in the driver's seat. Often, women will get tears in their eyes when they hear this, validating how powerful and rare it is for women to be reminded of their body sovereignty.

I am a survivor of child sexual abuse, sexual harassment, and intimate partner violence. As studies like the Cedar Project have shown, this is not uncommon for the daughter of a residential school survivor.3 I carried the trauma, shame, and anger into medical school, where feedback about my body was retraumatizing. I also experienced chronic toxic stress from a medical culture that normalized my exposure to abusive teaching practices, martyrdom, and depersonalization. Eventually, the abuse I experienced at school led me to tolerate abuse at home. What I know now is the fear and anxiety I felt being body shamed during that first evaluation was not unfounded; I was not safe.

In my first year of practice, an Elder shared with me this teaching: Generations before, wise female Elders foretold of a time when the Women's Medicine Bundle was at risk of being lost. To preserve the bundle, they wrapped it with great care and buried it deep in the Earth. A time would come

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The power of stories and remembrance

tories can be more powerful than statistics. Although our epidemiologic egotism compels us to scoff at the "N of 1," it is hard to deny the influence of a poignant story over that of impersonal data. Stories from a crisis resonate deeply and foster a sense of solidarity and shared purpose. For me, Remembrance Day is a solemn annual reminder of this. On 11 November, we honor everyone who serves, or has served, Canada during times of war, conflict, and peace.1

Remembrance Day, originally called Armistice Day, was first observed in England on 11 November 1919 to commemorate the agreement to end the First World War, which was struck 1 year prior. In Canada, we began our honored tradition of observing Remembrance Day in 1931.1

In the First World War, 650 000 Canadians served, and 66 000 lost their lives.2 It is estimated that over 16.5 million people died worldwide over the course of the war.3 These numbers are so staggering and saddening that they can be difficult to fathom and even harder to feel. When death and suffering are so big and so painful, we may be compelled to block them out, rather than reflect.

One of the ways I try to stay present is by thinking about war's impact on my own family. Both of my grandfathers served. My maternal grandfather told stirring stories of having fought in both World Wars. At 16 years old and underage, he managed to enlist in the British Army. He recalled scores of men trudging through the mud at the Battle of Passchendaele, only to be mowed down by machine-gun fire, and seeing a commanding officer on his horse, watching and crying. During the Second World War, when my grandfather was well into his 40s, he enlisted again. Before the Army discovered he was overage, he encountered several battles, at one point jumping from a sinking ship even though he could not swim. A mate saved him, and he was eventually sent back to London, England, where my mother was born.

War stories are one example of how oral history can provide a record of people's challenges and triumphs and create emotional bonds that data and statistics alone cannot. In medicine, stories humanize clinical practice and foster empathy and resilience. Reflecting on past experiences or patients can offer invaluable insights for future cases (even if we don't have class 1 evidence to prove it).

This month, Dr Terri Aldred bravely shares a story in her editorial. I realize that sometimes stories are emotionally triggering, and other times they bring solace and psychological healing. Whatever the experience, I am grateful to those who preserve and share their stories; they are important and powerful. Please write to the BCMJ and tell us your story. It might not change the whole world, but it could change the world for someone.

—Caitlin Dunne, MD, FRCSC

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My body, dissected, Continued from page 324

when it would be safe to reclaim this sacred bundle. At the time, I didn't understand its significance. After a long journey of healing and reclamation, I was happily married and expecting our daughter when I realized she was the sacred bundle. All Indigenous women, girls, and LGBTQIA2S+ people are. We carry the wisdom and spirit of our ancestors. We are the medicine.

—Terri Aldred, MD

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Letters to the editor

We welcome original letters of less than 500 words; we may edit them for clarity and length. Letters may be emailed to journal@doctorsofbc.ca or submitted online at bcmj.org/submit-letter and must include your city or town of residence, telephone number, and email address. Please disclose any competing interests.

Call for podcast participants: Medical students empowering and engaging caregivers in family-centred care

The University of British Columbia Medical Undergraduate Society's Families as Partners in Care Club highlights the importance of family-centred care in medical student training and showcases medical students' interest in gaining experience in this area. The club was founded in 2022 out of three medical students' experiences caring for family members and realizing the importance of family-centred care in developing rapport with families, creating quality care plans, and encouraging open communication in challenging health care situations. Since then, the club has grown to more than 15 medical student members who learn about, promote, and share family-centred care principles.

The club offers resource lists for caregivers to connect with local organizations that support families and other caregivers, as well as family-centred care tips and approaches to share with other learning health care professionals. We hope to continue creating opportunities for caregivers and students to connect one on one outside of clinical situations, supporting the development of long-term strategies for family-centred care integration.

Call for podcast participants

The club would like to engage the greater BC medical community in creating podcast episodes in which medical students discuss family-centred care principles with caregivers and practitioners. If you are a caregiver interested in speaking with us,

please contact us at info.ubc.fpc@gmail. com to help shape how medical students and other health care professionals practise family-centred care.

—Ella Barrett-Chan
UBC Medical Student, Class of 2025

—Caroline Kim, BASc
UBC Medical Student, Class of 2026

—Kristie Mar, BSc UBC Medical Student, Class of 2025

—Lindy Moxham

UBC Medical Student, Class of 2025
—Sarika Verma, BSc

UBC Medical Student, Class of 2025

Co-founders, Research and Advocacy Team Lead, Resources Team Lead, UBC Families as Partners in Care Club

Re: Deteriorating wait times for breast cancer patients

In their recent article "Deteriorating wait times for breast cancer patients at a regional hospital in BC, 2013 versus 2023" [BCMJ 2024;66:240-247], Hwang and colleagues nicely summarized the crisis in the breast cancer diagnosis and treatment system, not just in their regional centre, but also in all of British Columbia. In Kamloops, we established a rapid access breast clinic in 2017 in response to delays in the breast cancer diagnostic system. Our clinic has successfully decreased wait times from presentation to breast cancer diagnosis by an average of 21.3 days (mean 45.7 days prior to the clinic's establishment and 24.4 days after its establishment), and this could be used as a model of care for other centres.

The success of our rapid access breast clinic lies in coordination of care with diagnostic imaging, allowing patients a triple assessment on one day. This model schedules in a single appointment: (1) nurse and physician assessment, (2) breast diagnostic imaging and results, and (3) same-day ultrasound-guided core needle biopsy, if required. Additionally, our clinic acts as a hub for patients undertaking breast cancer diagnosis and treatment with a nurse navigator who coordinates care in our community. The clinic has been particularly beneficial for unattached patients and patients who have to travel to Kamloops from surrounding communities for investigations and care.

Despite improvements in the breast cancer diagnostic system, we continue to struggle to meet benchmarks for breast cancer diagnosis to treatment timelines. I agree with Hwang and colleagues that these timelines could be improved by bettering the biomarker reporting system, improving operating room access for breast cancer surgeries, and recruiting more medical oncologists to our community.

The Kamloops cancer clinic is staffed by four medical oncologists (one very close to retirement) and the equivalent of 2.5 full-time equivalent general practitioners in oncology. We have been unsuccessful in recruiting oncologists to our centre, in large part due to the current model of care. Our centre is a Community Oncology Network site administered by our local health authority rather than by BC Cancer. We therefore lack the resources and supports that the regional BC Cancer centres have, and this has negatively impacted recruitment and retention of oncologists in our centre. If the Kamloops cancer clinic were to come under BC Cancer administration and receive the same funding, supports, and

services as the regional BC Cancer centres, we would undoubtedly improve physician staffing at our centre and improve timelines to breast cancer treatment.

I appreciate the work Hwang and colleagues put into their article and hope it will engage health authorities and BC Cancer to improve the breast cancer diagnosis and treatment system for all patients in British Columbia.

—Liz Ewart, MD, FCFP **Kamloops**

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Access to health care

When I started my practice of internal medicine in Comox back in 1979, patients had better access to health care than they do now. Yes, medications, technology, and surgical procedures are all better now, but

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the suffering of patients waiting in long lines for help from our profession is much greater today. Not so long ago, my friend, a retired family practitioner, was suffering from a very painful hip problem. He was given a 3-year wait time, so he flew to Calgary to have the surgery in a private clinic. He could not have the surgery in Vancouver, because only privileged groups of patients can have a surgery in a private clinic in their own province. Quebec is the only province that has an exception to this rule. In 2005, Dr Jacques Chaoulli won this exception in the Supreme Court of Canada, saving patients in Quebec from this nonsensical system.

Our present health care system is in a straitjacket of left-wing politics and an overgrown bureaucracy. Who is speaking for patients today? It used to be doctors, but since the departure of Dr Brian Day from the BCMJ, I see nothing in it on the topic of the present health care crisis.

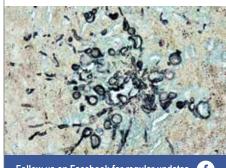
—J.J. Simice, MD, FRCPC Comox



A case of eumycetoma in British Columbia

Although eumycetoma is a rare infectious entity in Canada, its diagnosis should be considered in patients who have arrived from an endemic

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"What we speak becomes the house we live in"

ealth care in British Columbia and across Canada has been shrouded in negativity for quite some time. This is mostly because there are too few of us looking after increasingly complex patients, across diverse geographies and patient populations. We often have limited resources to provide patients with the care they need and deserve. Sometimes we find ourselves having to overcome many hurdles just so our patients can get the best care possible. If we don't take on this work, who will?

Despite our daily challenges, it is inspiring to be reminded that, as practising physicians, every one of us carries enormous power. In an increasingly fractious world that is distrusting of authority, doctors are still trusted by more than 90% of Canadians. How we interact with our patients and with each other, what we stand for, and what we choose to fight for truly matters. Every day, we hear more and more from British Columbians about how much they value longitudinal family practice. We hear how much they value their encounters with doctors and how much it means to them when we simply do our job.

Precisely because we are valued and have influence, how we conduct ourselves and how we speak during these challenging times matters. In our interactions with

> If we speak a language of hope and togetherness, that is the future we will build for our health care system.

our patients and with each other, we must speak with hope. We must speak with an understanding that, in these challenging times, we will make things better if we work together-with each other, with our patients, and with those who have responsibility for the health care system. Especially if we are willing to do the hard work to make it better, together.

In the words of Persian lyric poet Hafez, "What we speak becomes the house we live in." If we speak a language of hope and togetherness, that is the future we will build for our health care system. When our patients come to us in distress, we can lead by acknowledging their pain, conceding that others may have let them down, and assuring them that they can trust and depend on us. In providing our patients with hope, we give our own work and lives purpose. Whether in our role as doctors looking after one patient or as health care leaders looking after entire populations, the least we can do for our patients and those we have responsibility for is to give them hope.

In that spirit of hope and togetherness, Doctors of BC and the profession need your energy and your voice. In November, you will be voting for a number of leadership positions within Doctors of BC. Please use your voice to vote for leaders who offer hope and unity for the years ahead. More so, consider taking on positions of leadership yourself, whether within Doctors of BC or in the profession as a whole, in your local networks, medical staff associations, and divisions. The health care system must change, but to do this, it needs all of us working together, to make things better together.

—Ahmer A. Karimuddin, MD, FRCSC **Doctors of BC President**



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Funding for this initiative is provided by the Physician Master Agreement (2022) negotiated by Doctors of BC and the Ministry of Health.







Mackenzie A. Campbell, MD

The role of anti-Müllerian hormone testing for fertility prognosis

The use of anti-Müllerian hormone testing to measure ovarian reserve has advantages and disadvantages; therefore, it is vital to consider the clinical question being asked.

ABSTRACT: There is a growing demand for fertility care in British Columbia and an associated interest in ovarian reserve testing. Anti-Müllerian hormone (AMH) testing is a validated marker and one of the few direct measurements of ovarian reserve; AMH levels are stable throughout the menstrual cycle, and it is a readily accessible biochemical test in BC. Despite these advantages, providers must acknowledge that although AMH levels can be used to estimate the quantity of oocytes remaining, they cannot be used to estimate their quality. Furthermore, AMH levels are artificially lowered in women who are taking combined oral contraceptive pills, and this effect may be seen for up to 2 months after discontinuation of such pills. Clinical scenarios in which AMH testing is a helpful tool include predicting response to controlled ovarian stimulation, titrating gonadotropin dosing in controlled ovarian stimulation, and supporting a diagnosis of polycystic ovary syndrome in adults. However, AMH testing should not be used to predict natural fertility, exclude patients from assisted reproductive technology, or predict age of menopause. It is, therefore, important to carefully consider the clinical question being asked when ordering AMH testing.

Dr Campbell is a resident in the Department of Obstetrics and Gynaecology at the University of British Columbia.

This article has been peer reviewed.

n recent years, demand for fertility care has increased as women choose to delay childbearing. Between 2000 and 2022, the mean age of the mother at the time of delivery in British Columbia increased from 29.3 to 32.4 years. During the same time frame, the age-specific fertility rate for females aged 40 to 44 years nearly doubled, from 7.0% to 13.7%. Therefore, it has become increasingly important to develop and implement reliable tools to appropriately counsel women who are seeking fertility care and assisted reproductive technology.

It is well established that primary contributing factors to age-related infertility include decreased ovarian reserve and a rise in chromosomally abnormal embryos with advancing age.3 In controlled ovarian stimulation for assisted reproduction, subcutaneous injections of gonadotropins (follicle-stimulating hormone and luteinizing hormone) stimulate ovaries to grow follicles. Controlled ovarian stimulation followed by oocyte retrieval improves the probability of pregnancy in women with infertility. Individual responses to controlled ovarian stimulation vary, which can impact oocyte yield at the time of retrieval. However, tools exist to help predict response to controlled ovarian stimulation and successful in vitro fertilization outcomes.

I review the role of ovarian reserve testing, with a focus on anti-Müllerian

hormone (AMH) testing. My goal is to provide a practical guide to interpreting AMH testing results and the implications for patients seeking fertility care.

Defining ovarian reserve testing

Human oocyte numbers peak around 20 weeks' gestation, undergo atresia or ovulation, and do not regenerate.⁴ It is estimated that females have 500 000 to 1 000 000 oocytes at birth, but the number declines to approximately 400 000 at the time of puberty and 1000 at the time of menopause.^{5,6} Ovarian reserve refers to both the quantity and the quality of the remaining ovarian primordial follicular pool.

Though it remains difficult to predict oocyte quality, ovarian reserve tests were designed to estimate the quantity of oocytes remaining and thereby predict which patients will have a poor response, hyper-response, or adequate response to controlled ovarian stimulation. A number of tests have been developed over the years, including biochemical, biophysical, and histological tests of ovarian reserve.⁷

The most applicable evidence-based tests are serum AMH concentration and ultrasonographic antral follicle count. I focus on serum AMH concentration, which peaks around age 25 and declines at a steady rate until age 40, at which time the rate of decline becomes steeper until the age of menopause. This was demonstrated

Campbell MA CLINICAL

in Kelsey and colleagues' 2011 validated model,⁸ which strongly supports the use of AMH as an ovarian reserve test.

AMH testing origins

AMH was first discovered by French endocrinologist Dr Alfred Jost, who was famous for his research on the physiology of somatic sex differentiation. In 1947, Dr Jost published his finding that AMH was responsible for Müllerian duct regression, which suppressed the uterine and tubal structures during male sexual development.9 It was not until the 1980s, however, that the role of AMH at the level of the ovary was well characterized. In 1981, Hutson and colleagues published the first evidence of ovarian expression of AMH in chicken gonads.10 This persisted even after Müllerian duct regression, which suggested other implications of AMH in reproductive physiology. In 1999, Durlinger and colleagues published evidence that AMH controls primordial follicle recruitment in mice.¹¹ This was the first publication of its kind on the function of AMH in the ovary.

Several commercial AMH assays have been developed since then, starting with two commercial AMH enzyme-linked immunosorbent assays (ELISAs) manufactured by Diagnostic Systems Laboratories, Inc. and Immunotec, respectively, in the early 2000s.¹² After Beckman Coulter, Inc. acquired both companies, AMH Gen II ELISA was developed and distributed in 2010. More recently, the ultrasensitive human MIS/AMH ELISA kit, the automated Access AMH assay, and the Elecsys AMH immunoassay have been introduced. Despite this progress, according to the World Health Organization international standards, no reference reagent has been established that addresses the heterogeneity in AMH assay kits.

Advantages of AMH testing

AMH is produced by granulosa cells of early follicles once they differentiate from the primordial to the primary stage at the time of puberty. The number of early follicles is related to the size of the primordial follicle

pool; therefore, serum AMH concentration is one of the few direct measurements of ovarian reserve.

Also, serum AMH concentration is gonadotropin independent, which makes it cycle-day independent as well.¹³ Other common biochemical tests of ovarian reserve, such as follicle-stimulating hormone, estradiol, and inhibin B, fluctuate throughout the menstrual cycle, which makes them more difficult to interpret.

It is recommended that the use of combined oral contraceptive pills be discontinued a minimum of 2 months before measuring serum AMH concentration for accurate results.

Finally, serum AMH concentration is a simple biochemical test that is offered widely. This is very different from the other reliable ovarian reserve test—ultrasonographic antral follicle count—which requires a trained provider and access to an endovaginal ultrasound machine and probe. This test is offered only by fertility clinics and select radiology departments and clinics, which limits accessibility compared with AMH testing.

Disadvantages of AMH testing

Though serum AMH concentration is one of the most reliable ovarian reserve tests, it is not perfect. AMH does not predict oocyte quality, which is an important component of ovarian reserve. Additionally, there is heterogeneity in AMH assay kits, which makes it difficult to establish a standard on a national or international basis.

In addition, serum AMH concentration is currently an uninsured test. The cost is quoted at \$78 on the LifeLabs website. 14 If patients are unable to access this test, informed treatment planning becomes more challenging for the fertility provider and perpetuates inequities in care.

Finally, though one of the strengths of AMH testing is its consistency throughout the menstrual cycle, serum AMH concentrations are lowered in women who are on combined oral contraceptive pills and should be interpreted with caution in this patient population.¹⁵ The theory is that the use of combined oral contraceptive pills causes prolonged suppression of follicle-stimulating hormone, which then prevents pre-antral and small antral follicle formation. As a result, the cohort of cells that produce AMH is smaller. It is recommended that the use of combined oral contraceptive pills be discontinued a minimum of 2 months before measuring serum AMH concentration for accurate results, because follicle development is believed to take 2 months.16

Reporting of AMH concentrations in BC

AMH concentration may be reported in either ng/mL (Immunotec assay and AMH Gen II ELISA assay) or pmol/L (Diagnostic Systems Laboratories, Inc. assay). Both units may be encountered by BC physicians, though LifeLabs British Columbia reports AMH concentration in pmol/L. The conversion factor from pmol/L to ng/mL is 0.14.

The normal levels for AMH, according to LifeLabs British Columbia, are as follows (oral communication with medical/scientific staff, LifeLabs British Columbia, 15 July 2024):

- Ages 20-24: 8.7-83.6 pmol/L
- Ages 25–29: 6.4–70.3 pmol/L
- Ages 30-34: 4.1-58.0 pmol/L
- Ages 35–39: 1.1–53.5 pmol/L
- Ages 40-44: 0.2-39.1 pmol/L
- Ages 45–100: < 19.4 pmol/L

Because these normal levels include a broad range, results may be difficult to interpret. However, in general, an AMH concentration of less than 10 pmol/L is a concern for decreased ovarian reserve.

AMH testing as a clinical tool

AMH testing is a helpful clinical tool in the following scenarios:

- Predicting response to controlled ovarian stimulation. The main role of AMH testing is its ability to predict response to controlled ovarian stimulation. Serum AMH concentration and number of follicles obtained during maximal ovarian stimulation have a positive association.¹⁷ This is significant because the greater the number of follicles obtained, the greater the likelihood of creating a euploid embryo for transfer. As a result, this helps when counseling patients who are considering egg freezing or embryo freezing regarding the urgency of moving forward with treatment.
- Titrating gonadotropin dosing in controlled ovarian stimulation. AMH testing results are helpful when deciding on gonadotropin dosing in controlled ovarian stimulation. Dosing is critical, because a poor response could lead to cycle cancellation, and a hyper-response could lead to ovarian hyperstimulation syndrome, which can be lifethreatening. Broer and colleagues showed that AMH has a good discriminatory capacity to separate normal and excessive responders to controlled ovarian stimulation.18 Multiple dosage algorithms have been proposed based on AMH results, with or without consideration of other factors, such as age or body mass index.¹⁹ These are widely adopted and implemented by fertility clinics locally.
- Supporting a diagnosis of polycystic ovary syndrome in adults. Serum AMH concentration has been explored as a diagnostic test for polycystic ovary syndrome. Iliodromiti and colleagues showed a specificity and sensitivity of AMH in diagnosing polycystic ovary syndrome in symptomatic women of 79.4% and 82.8%, respectively, for a cutoff AMH value of 33.6 pmol/L.20 However, serum AMH concentrations change over a woman's reproductive life, which suggests a need for age-specific thresholds. One study suggested cutoff levels for the prediction of polycystic

ovary syndrome as follows: 20 to 27 years: 40.7 pmol/L, 27 to 35 years: 32.5 pmol/L, and 35 to 40 years: 26.4 pmol/L.21 Nonetheless, the absence of a standardized AMH assay kit makes it difficult to adopt as a diagnostic test. As a result, elevated AMH levels are currently best used to support a diagnosis of polycystic ovary syndrome in patients who meet standard diagnostic criteria, such as the Rotterdam criteria.²²

Serum AMH concentration does not predict natural fertility, a common misconception among patients.

When AMH testing is not a helpful clinical tool

AMH testing is not a helpful clinical tool in the following scenarios:

- Predicting natural fertility. No studies have shown that serum AMH concentration predicts fecundability (the probability of conceiving in a given menstrual cycle), probability of pregnancy, or infertility.²³ The Time to Conceive study published in 2017 showed that women aged 30 to 44 years who had no known history of or risk factors for infertility but had low AMH levels had similar cumulative pregnancy rates as women with normal AMH levels.24 As a result, AMH should not be used to predict natural fertility in patients.
- Excluding patients from assisted reproductive technology. AMH levels should not be used to exclude patients from assisted reproductive technology. No studies have shown an AMH level below which no pregnancies occurred with assisted reproductive technology, because AMH does not reflect oocyte quality or chances of conception.²⁵ There is always a possibility of pregnancy after controlled ovarian stimulation and in vitro fertilization; age is still

- the primary predictor of success rates with assisted reproductive technology.
- Predicting age of menopause. Many studies have shown that the predictive power of AMH for menopause is poor.26 Though a low AMH level at a young age may be a risk factor for early menopause, it cannot be used to predict age of menopause due to the variable rate of decline in AMH concentration, as well as the multifactorial nature of menopausal transition.

Summary

Serum AMH concentration is a useful tool in the workup of infertility. It informs counseling of patients who are seeking assisted reproductive technology and helps fertility providers tailor their approach to controlled ovarian stimulation to optimize patient safety and outcomes. However, serum AMH concentration does not predict natural fertility, a common misconception among patients. As a result, choosing the appropriate clinical scenario and patient counseling are vital when ordering ovarian reserve testing. Finally, there may be a role for serum AMH concentration in supporting the diagnosis of select medical conditions, including polycystic ovary syndrome and menopause, but research has not yet supported its role as a diagnostic test or predictive tool. This is a dynamic area of research, with academic interest worldwide. Locally, BC physicians will be challenged to remain current on ovarian reserve testing recommendations as more patients seek fertility care in light of the publicly funded in vitro fertilization program starting in April 2025. This will be an exciting chapter for BC physicians and patients alike. ■

Competing interests None declared.

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The provincial privileging process in British Columbia through a rural lens

The impact of the provincial privileging process and dictionaries on rural generalist practice should be thoroughly evaluated to determine whether they have improved patient care and safety.

ABSTRACT

Background: Privileging and credentialing are key processes for ensuring appropriate scope of clinical practice, with the goal of optimized patient safety. Different processes are used to achieve these goals internationally and across Canada, thus highlighting the importance of context. We explore the perceived impact of British Columbia's provincial privileging process and dictionaries on rural physicians' ability to meet the needs of their patients.

Methods: Interviews were conducted with a total of 10 rural physicians, health care administrators, and provincial leaders between May and August 2022. Thematic analysis was used to analyze their responses.

Results: Participants focused on four main themes: the rationale and development of the dictionaries, their advantages, criticisms of the dictionaries, and suggestions for moving forward. Administrators and quality leaders spoke to the first two themes; rural physicians focused on the latter two.

Conclusions: Robust evaluation is an essential next step in determining whether the provincial privileging process and dictionaries have achieved their primary goal of improving patient safety.

Background

Achieving patient safety within the context of providing high-quality care is the lodestar of our health care system.1 Although there are logical antecedents to optimizing patient care, such as robust training, use of key performance indicators, adherence to regulatory standards, and peer review and patient feedback, the role of monitoring and evaluating provider skills and competencies becomes contentious. This is due not to its lack of importance, but instead to the way in which it is integrated into larger efforts to ensure health care quality. There is an ontological divide between those who believe that provider capacity to provide quality care can be assessed through a meritocratic approach based solely on education,

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experience, and skills as opposed to a contextual approach that includes the influence of the practice setting, population need, and available resources. This is not an evasion of the need to ensure universal standards of quality, but is instead a recognition that an industrial approach may not meet the needs of every practice setting. Within this discussion, an essential consideration is often overlooked: what are the potential harms of instituting a meritocratic approach in settings where care providers must necessarily function in the context of uncertainty to meet patient needs?

We explored these issues as a tentative first step in understanding the perceived impact of British Columbia's provincial privileging process and dictionaries (PPPDs) on rural practice. Specifically, we were interested in the impact of the PPPDs on rural physicians' ability to meet the needs of their patients and the long-term implications of the PPPDs for the sustainability of rural health care delivery. Although we focused on gathering data from rural physicians, to achieve equipoise in reporting, we also included the experiences of health care administrators and provincial experts. Through this inclusive approach, we endeavored to create a platform for further investigation into the impact of the PPPDs on rural practice in BC.

In health care, the terms privileging and credentialing are often used interchangeably. Although they are related processes, they are distinct. Credentialing is the process of evaluating a provider's background (including education, qualifications, procedural skill sets, and experience) to determine suitability for practice.2 It usually involves submission of relevant documents to the credentialing body (in BC, the College of Physicians and Surgeons of British Columbia) to determine suitability for practice. Privileging is the process of granting permission to health care providers to perform discrete procedures within a given jurisdiction or facility based on clinical skills and experiences. In BC, privileging is the responsibility of regional health authorities.3 In short, credentialing establishes qualifications,

whereas privileging establishes the specific clinical activities that can be undertaken. In this study, participants spoke to the privileging process in BC.

Although the general structure of physician privileging is relatively homogeneous across Canada, from documentation requirements to the stepwise progression of applications through governing bodies, many of the specifics are province or territory dependent. For example, in Alberta,

> In health care, the terms *privileging* and credentialing are often used interchangeably. Although they are related processes, they are distinct.

as of July 2023, the relevant medical direc-

tor is tasked with approving privileging applications to streamline the process.4 Across Canada, the number of discrete steps in the application process ranges from a facility-only application (Alberta and Ontario) to a single province/ territory-wide application that covers all facilities or regions (Yukon, Northwest Territories, and Nova Scotia).5,6 Of note, Saskatchewan's application requirements vary: in the urban regions of Regina and Saskatoon, applications are vetted by the health region, but in rural areas, the application is facility specific. Nova Scotia and Saskatchewan have amended processes to facilitate locum applications for privileges by granting temporary privileges while awaiting formal review to negate delay to practise or by reducing the number of approvals required to grant privileges, respectively.^{7,8} Other provinces require locums to apply for privileges in the same manner as other physicians, but temporary privileges are not granted while awaiting decision. Currently, BC is the only province that uses provincial privileging dictionaries. However, the College of Physicians and Surgeons of Alberta refers medical directors to BC's PPPDs for "guidance on standard benchmarks and practice expectations."9 If applying for noncore privileges in the Northwest Territories, the number of times the procedure was performed in the previous 36 months and documentation demonstrating additional training are requested; however, it is not evident whether there is a threshold that providers are required to meet.6

Credentialing and privileging in BC

In 2014, BC undertook significant changes to the privileging of health care providers, under the provincial Privileging Standards Project. The project was developed largely in response to the misinterpretation of CT images in three regional health authorities in 2010, which precipitated an investigation by the BC Patient Safety and Quality Council (now Health Quality BC).¹⁰ The report indicated that the previous system of self-regulation by practitioners did not ensure patient safety, which prompted the system to move to criteria-based privileging.¹⁰ The criteria required were represented through the development of a series of specialty and subspecialty dictionaries that defined core privileges assumed to have been gained through formal training programs. Noncore privileges were those that would require additional education and training.

Although initial iterations of the dictionaries were primarily volume-based, revisions have been made to the criteria; however, the legacy of procedural volume has remained part of the criteria. Although this is appropriate for complex procedures, for which evidence shows that safety is contingent on repetition,¹¹ it is not as directly applicable to a generalist skill set, which by definition involves a wide scope of practice. The issue becomes more contentious when applied to rural settings, which are naturally defined by a low procedural volume, the lack of a specialist safety net, and the obligation to meet the immediate needs of the population catchment.

Unlike other jurisdictions, BC has not undertaken an in-depth evaluation of the

PPPDs, with input from key partners on the metrics needed for a robust evaluation. The findings we present are not such an evaluation, but are instead a tentative first step in documenting the response to the PPPDs by rural providers, administrators, and provincial leaders to understand potential issues that require further focus.

Methods

Data were collected through open-ended qualitative research interviews to understand the experiences of rural physicians and administrators who use BC's privileging dictionaries, as well as the impact of the dictionaries on rural practice. This study was conducted in accordance with the guidelines and regulations of the University of British Columbia's Behavioural Research Ethics Board (Ethics ID: H22-00756).

Setting and participants

Expert interviews were conducted with 10 participants, including practitioners in rural and subregional hospitals in BC, health administrators, and those involved in provincial health service decision making. Interviews were held via Zoom, which minimized travel-related challenges.

Data collection

Data were collected between May and August 2022. All interviews were led by the principal investigator and supported by a research assistant. Prior to the interview, participants were sent a consent form to review. Each participant was given the opportunity to ask questions before the start of the interview and provided verbal informed consent to participate. Additionally, consent for audio recording was granted for all interviews. Interviews were transcribed via the transcription feature on Zoom, thereby removing the need for external transcription. Each interview transcript was reviewed against the audio recording to ensure accuracy.

Data analysis

Data were analyzed using thematic analysis.12 The primary coder (A.C.) listened to the interview recordings and reread the transcripts multiple times. Once familiarization with the data set was achieved, a coding framework was drafted, which outlined main ideas reported across the data set.13 These recurring ideas (codes) were organized into a hierarchical structure, with parent codes encapsulating broader thematic concepts and child codes dividing main ideas into more specific categories. Through the codebook development process, the research team met regularly, and there was a high level of agreement within the team about the codes generated through engagement with the data set. Once the codebook was completed, it was applied to the entire data set using NVivo 12 software. To augment the reliability of the coding process, the research team continued to meet regularly to discuss codes, ensure consensus about interpretation of the data, and iteratively adjust the codebook as needed.

Upon completion of coding, the team met again to consider and name final themes. These were the overarching ideas expressed across the data set that encapsulated participants' experiences with the PPPDs. Themes were developed inductively through primary engagement with the data set rather than derived from an external theoretical framework.

Methodological rigor

The authors practised reflexivity through the process of data collection, interpretation, analysis, and writing of results. The team engaged in critical reflection about potential biases they may have had that could have influenced their interpretation of the data set. This ongoing reflection and transparency are key to strengthening the trustworthiness and quality of the qualitative analysis. 14,15 The primary coder also engaged in persistent observation, returning repeatedly to the raw data and adjusting codes and themes as needed until the team was satisfied with the richness and depth of the analysis.16

Results

The **Figure** illustrates the thematic findings.

Rationale and development of the PPPDs

Study participants agreed that there need to be structures in place to ensure that a high standard of patient care is delivered across the province. However, participants were divided on how useful the PPPDs were in that pursuit.

Proponents explained that the purpose of the dictionaries is not to dismantle generalist care or bar specialist procedures outside of "big city hospitals," but rather to ensure that practitioners are safe to provide contextually appropriate care. Some participants viewed the PPPDs as an "overblown reaction" to "one or two practitioners" who were practising outside their scope. There was discussion about the effectiveness of the consultation process used with health care providers when establishing the provincial privileging process (see full report at https://med-fom-crhr.sites.olt.ubc.ca/ pppd).

Advantages

The PPPDs were seen as advantageous for ensuring patient safety through mechanisms that promote surveillance, accountability, and reflection, as well as for matching qualifications with scope of practice, which together help professionalize and legitimize health care practices. Participants appreciated that the PPPDs enable physicians to assess their competencies, thereby ensuring they provide safe and appropriate care, and serve as a regulatory framework that clearly delineates qualifications, which is particularly beneficial for less-recognized specialties.

Criticisms

Criticism of the PPPDs focused on the use of procedural volume as a measure of competence, the perceived rigidity of the categories, and a lack of attention to local context, which extended to a lack of attention to the emerging realities of virtual care and the importance of

Rationale for and development of PPPDs

- PPPDs as a structure to ensure a high standard of care
- Practitioner inclusion and working groups
- Appropriate governing bodies

Advantages

- Importance of surveillance
- Reflection and accountability
- **Ensure qualifications**
- Professional legitimization

Criticisms

- Relationship between procedural volume and competency
- Rigidity of categories
- Lack of attention to local context:
 - Health human resources
 - Virtual care
 - Team-based care
- Perceived bureaucratic intrusion of PPPDs
- Impacts on rural patient care:
 - Increased travel cost
 - Inconvenience
- · Impact on physician retention

moving forward

Suggestions

- Potential improvements to the PPPDs
- Improve the education system
- Alternative systems

FIGURE. Findings of a study on the perceived impact of British Columbia's provincial privileging process and dictionaries (PPPDs) on rural physicians' ability to meet the needs of their patients, by theme.

team-based care. An additional thematic concern focused on the perceived bureaucratic intrusion of the PPPDs on physician practice. Additionally, participants linked the PPPDs to increased travel costs and inconvenience for patients and challenges with physician retention.

The medical literature¹⁷⁻¹⁹ does not support currency (number of procedures done) as a legitimate surrogate for competency for low-acuity procedures. Furthermore, there appears to be no evidence that supports the use of numbers as a measure of outcomes for any of the procedures performed in rural BC. The use of numbers has negatively impacted both physician practices and patients' access to care.

Lack of attention to local context

Participants noted the variability of facility and provider resources in rural communities, the extensive use of team-based care in rural hospitals, and the consequences of referring patients out of their communities

for health care further reduce the validity of the numbers used in the privileging dictionaries. The issue of context has been poorly understood in the development of the provincial privileging process.

Virtual care

Participants emphasized that technological advances, such as virtual consultations, are reshaping rural health care delivery in ways not currently addressed by the PPPDs, potentially altering established standards and complicating privileging structures.

Bureaucratic intrusion

Participants reported that the privileging application process has been sufficient to cause some physicians to limit their locum practices or decline requests from other communities to help with emergency room coverages. This has resulted in preventable rural emergency room closures, together with increased risk, costs, and travel for patients.

Impact on patient care

The provincial privileging process has resulted in physicians reducing the scope of their practices, which has led to a loss of local services and increased travel for patients. Consequently, many participants expressed concerns about the quality of patient care.

Impact on recruitment and retention

Participants gave examples of colleagues who dropped procedures or walked away from work completely due to exhaustion with the system. One participant suggested that where physicians used to push back against rules that hindered their work without benefit, many now circumvent the impediments the PPPDs pose by becoming increasingly specialized or leaving rural practice. Some participants highlighted the negative psychological impact of the provincial privileging process on rural physicians, citing increased insecurity and decreased professional satisfaction.

Provider scope of practice

Participants gave concrete examples of where they had observed a diminished scope due to the dictionaries, in either their own work or their colleagues' work. Some participants cited low procedural volume and the consequent limiting of privileges, while others pointed to exhaustion with the administrative burden of the PPPDs and gave examples of providers who let skills go to simplify their privileging process.

Suggestions moving forward

In their discussion of the best way to move forward, recognizing the importance of checks and balances to ensure patient safety and quality, participants identified potential improvements to the PPPDs focused on improving the education system or advocated for a different system entirely.

Suggestions for improvements to the PPPDs

Suggestions for improvements to the PPPDs often focused on the need for a better approach to providers who have been identified by the dictionaries as falling below a threshold for privileging. Other suggestions included the need to move away from an arbitrary number, suggesting that the dictionaries be reshaped and geared toward attitudes and behaviors rather than just procedural scope, and the need for a more central provincial application and approval process that would improve ease of practising between health regions, together with greater locum accessibility.

Education system improvements

Some participants identified the education system as a locus for important system improvements, in tandem with or in place of the PPPDs.

Alternative systems

Participants described a need for a more contextual system that is less top down and more bottom up. Many also discussed the efficacy of programs such as moreOB, in which the quality of care focus is on the team rather than a single provider. A large,

overall takeaway for many participants was a concern that the current dictionaries rely on punitive measures to ensure quality of care rather than supporting providers to ensure they are working to the height of their abilities. This was seen as especially important for providers who work in rural communities and may not have easily accessible support from peers yet are crucial to maintaining access to care for local populations.

Discussion

Participants had starkly contrasting views on the effectiveness of the PPPDs in promoting patient safety and sustainability for health care providers: administrative opinions were generally positive, whereas rural health care provider opinions were predominantly critical. The divergence in perspectives highlights the administrative focus on system accountability and efficiency, often at the expense of increasing administrative burdens that detract from direct patient care for providers. Notably, the PPPDs often exacerbated bureaucratic challenges, thereby negatively impacting physician morale and suggesting a disconnect between policy implementation and the practical realities of rural health care. Rural physicians advocated for a more integrated approach to quality assurance that recognizes the unique challenges of rural settings and involves providers directly in policy formulation to mitigate unintended consequences. This call for inclusive, context-aware policymaking is crucial to avoid further disempowering those at the front line of rural health care.

Study limitations

This study provides the tentative first steps in understanding the issues and concerns with BC's PPPDs through a rural lens. The purpose is not to present an exhaustive and comprehensive overview of the benefits and challenges, but to identify the high-level issues—both positive and negative—through the inclusion of rural physicians' voices alongside the voices of administrators and provincial experts. Although we achieved this, the themes may

not be consistent across all rural health care providers due to both the low number of participants and the likelihood that those who did participate felt passionate about the topic. This potential for response bias (and nonresponse bias) is a limitation of a comprehensive understanding of the impact of the PPPDs on rural physicians and rural health care practice, but it is not a limitation in this study, given its modest objectives.

Conclusions

Dissenting opinions were expressed by quality leaders and health care administrators compared with rural care providers: the former focused on the administrative efficiency of the PPPDs and the gap they filled in ultimately optimizing patient care; the latter focused on the challenges to rural practice that the PPPDs were seen to precipitate. Our findings are prudent first steps toward understanding the implementation of the PPPDs through a rural lens but are not a definitive assessment. A thorough evaluation of the impact of the PPPDs on rural generalist practice should be undertaken, guided by the following value propositions:

- Rural is not "small urban."
- Collaboratively developing these metrics through a consensus-based process is an essential starting point.
- Any technological solutions should be supported and reinforced by associated changes in the culture of quality oversight and should not be seen as a discrete solution to concerns about the overarching process.
- Ongoing feedback loops should be enabled to allow clear and consistent communication from all partners about successes and challenges of the resulting process.

A robust rural evaluation that adheres to the principles noted is an essential first step in determining whether the primary goal of improving patient care and safety has been achieved through the PPPDs in BC. This consideration is particularly urgent against the backdrop of the current health human resource crisis.

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Data availability

The data sets generated and analyzed in this study are not publicly available to prevent subject identification due to the small number of participants in a localized area. The data may be available from the corresponding author upon reasonable request.

Competing interests

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Supporting the stillbirth journey at BC Women's Hospital and Health Centre

The hospital setting, designed primarily for the delivery of live infants, can profoundly shape the experience and memory of those who have a stillbirth in pregnancy.

ABSTRACT

Background: Nearly all stillbirths in Canada occur in hospitals—a setting that can either support or exacerbate what is often a traumatic experience. People with lived experience of stillbirth face psychological challenges, barriers to seeking support, and stigma; therefore, patient engagement is critical to optimizing stillbirth care.

Methods: We conducted a quality improvement project through a human-centred design approach to understand the hospital stillbirth experience and co-design a vision for improved stillbirth care at BC Women's Hospital and Health Centre. We engaged 30 bereaved

parents in two workshops and used design methods to promote reflection and gather insights about their experiences.

Results: Four key themes emerged via reflexive thematic analysis, which highlighted bereaved parents' desire for stillbirth-specific care, care that honors the baby and recognizes the parents, provision of accommodating spaces, and sharing of information with care.

Conclusions: The hospital setting, designed primarily for live deliveries, can contribute to the suffering of bereaved parents of stillborn babies.

Background

In Canada, stillbirth is defined as the birth of a fetus or baby with no signs of life at 20 weeks or more gestational age or birth weight of 500 grams or more. In 2022, 3169 people experienced a stillbirth in Canada, of which 567 took place in BC. Pearly all stillbirths occur in a hospital setting, where the stillbirth journey from diagnosis to discharge has been described as erratic, confusing, and heartbreaking.

Stillbirth is a significant public health concern that can have profound and lasting impacts on those who experience the loss and their loved ones.⁷ People can experience a wide range of intense emotions, including shock, anger, shame, and profound grief

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FIGURE 1. Visual identity (left: Mountain View Cemetery infant graves area in Vancouver, BC, that inspired the visual identity; right: sample workshop materials featuring earthy tones and nods to silhouettes of the sweet pea, which attracts hummingbirds, another symbol in the stillbirth community).

following stillbirth.^{7,8} Individuals' emotional responses vary considerably and may be influenced by factors such as social support, previous experiences with pregnancy and childbirth, and the specific circumstances in which the pregnancy or loss took place. 9-13 People who experience such a loss have, on average, higher rates of anxiety, depression, substance use, and posttraumatic stress disorder than those who have a live birth. 11,13-16 These psychological challenges may persist into subsequent pregnancies and affect overall well-being and quality of life.17 Following a stillbirth, close family members, including partners and grandparents, may also experience significant grief and increased mental health concerns. 7,10,18,19 Stigma affects the social identities of those who view themselves as bereaved parents; thus, identity repair is crucial to stillbirth recovery.²⁰ In this article, we use the term "bereaved parents" to reflect the preferred language of our study participants, all of whom regarded the stillbirth as the loss of a baby and identified themselves as parents. We acknowledge that this term does not reflect the realities of all people who experience stillbirth. Due to stigma, bereaved parents and loved ones experience guilt, isolation, and alienation.^{21,22} Partners often face the erasure of their status as grieving parents and may find it more challenging to seek support than birth parents.7,10,23

Given that hospital care is a common component of the stillbirth journey, quality improvement in this setting is an institutional responsibility. Implementing empathy-driven practices within the hospital can modulate the psychological distress and stigma experienced by people and cultivate a supportive stillbirth journey.6,12,20,24,25 Given the multiple ways in which people experience their stillbirth, it is essential to engage people with lived experience in quality improvement-based initiatives.26,27 Amplifying individuals' perspectives promotes equity, mutual respect, and shared decision making, all of which are integral to high-quality care.²⁸

As a provincial referral center, BC Women's Hospital and Health Centre has the highest volume of stillbirths in BC. Of the 561 stillbirths recorded in BC in 2022, 333 occurred at BC Women's; 9% were spontaneous.^{3,4} Because patient and health care provider feedback indicated that care could be improved, we conducted a study to understand the hospital stillbirth journey of people with lived experience and to co-create options for improving the experience.

Methods

Our quality improvement project employed a human-centred design approach, which puts the needs of service users at the centre of the design process when addressing complex problems. 29,30 To ensure people with lived experience of stillbirth were integrated into the study as decision-makers, co-design methods of engagement—participatory approaches to designing with rather than for people—were used throughout. 30,31 This is in contrast to traditional user-centred design methods, which often engage individuals through observation and interview-based approaches.³² By bringing together people with lived experience, designers, and health care professionals to learn from and work alongside each other, the voices of those most directly impacted can be elevated to inform direct outcomes.31

Given that stillbirth care is a sensitive topic and the experience of stillbirth can be traumatic, we used a trauma-informed approach that prioritized comfort, trust, transparency, safety, and support.33 This took the form of shared decision making regarding the design of the project's visual identity [Figure 1], a relational approach to recruitment, cultural and psychological support during the workshops, co-facilitation of workshops, co-analysis of information gathered, and peer support throughout the project.

For this three-phase project, we assembled an 18-person core design team, including two people with lived experience of stillbirth, learners from design and medicine, and members of the BC Women's Population Health Promotion team and the Emily Carr University of Art + Design's Health Design Lab (see the acknowledgments). The first phase involved convening the core design team and co-learning about stillbirth. The second phase included

the engagement of people with lived experience in two co-design workshops. The final phase consisted of data analysis and knowledge sharing with BC Women's clinical and operational staff, bereaved parents, and participants at a national conference. The project was approved by the Provincial Health Services Authority's Information Access and Privacy Office.

Building on our team's existing relationships with community partners across BC, such as the Midwives Association of BC, the Aboriginal Mother Centre Society, and the Butterfly Run, we sent an electronic invitation to approximately 1000 people. We collected data from bereaved parents via two co-design workshops (one in person and one virtual) and a demographic survey. The virtual workshop was offered to gather perspectives from across BC. Completion of the demographic survey was optional. Individuals were recruited via purposive and snowball sampling methods across the provincial health authorities. To be eligible for the study, participants had to be BC residents and had to have experienced a stillbirth in BC. Individuals were compensated at a rate of \$20 per hour for their engagement, provided a list of community resources, and connected with a community of bereaved parents. The workshops engaged people in four individual and group-based activities: (1) reflection journaling (2) a comfort map, (3) a personal stillbirth journey map, and (4) three wishes for a future stillbirth-specific care program [Figure 2].

Key insights from the workshops were synthesized from participants' written responses on activity sheets and through note-taking of group conversations using reflexive thematic analysis. This method emphasizes the reflexive and iterative process of identifying and interpreting themes and involves researchers acknowledging and reflecting on their values, experiences, interests, and social locations to inform the analysis process and produce key themes.34,35 Pairs of reviewers from BC Women's and the Health Design Lab analyzed data to ensure the information was interpreted using two different lenses.



FIGURE 2. Design-based methods used in individual and group-based activities at the in-person workshop for the Supporting the Stillbirth Journey project: (01) reflection journaling, (02) comfort map exercise, (03) personal stillbirth journey mapping exercise, and (04) three wishes for the future exercise.

Results

We engaged 30 bereaved parents: 27 birth parents and three support people. Twelve bereaved parents attended the in-person workshop; 18 attended the online workshop. The demographic survey was completed by 25 birth parents and one support person. With the exception of one participant, the individuals in our sample experienced their stillbirth(s) in the past 10 years and were 24 to 41 years old at the time of their loss. Of 25 respondents who completed the demographic survey, 15 identified as White and 10 identified as multi-ethnic, Chinese, Filipino, or Indigenous. The in-person workshop in Vancouver attracted a higher proportion of participants who identified as non-White (70%, versus 20% in the virtual session). All birth parents identified as female, and all support people identified as male. Thirteen birth parents reported a spontaneous stillbirth, 9 experienced the loss in the context of a termination, and 3 presented with preterm premature rupture of membranes/abruption and delivered a stillborn infant. Sixteen bereaved parents experienced their stillbirth at BC Women's; the remainder experienced theirs at other sites within the Vancouver Coastal Health, Fraser Health, Interior Health, and Vancouver Island Health Authorities. All bereaved parents had delivered their stillbirths within a maternity setting via vaginal delivery or cesarean section; none had a surgical procedure for evacuation.

The reflexive thematic analysis generated four key themes: stillbirth-specific care, honoring the baby and recognizing the parents, accommodating spaces, and sharing information with care. All quotations came directly from workshop participants but were not collected with attribution.

Stillbirth-specific care

Bereaved parents emphasized the need for comprehensive stillbirth-specific care delivered by a collaborative team equipped with the knowledge and skills to provide empathetic, sensitive, and appropriate information. They wished to avoid a medicalized atmosphere and identified the distress of having to recount their story to new health care providers with each shift change. They also expressed the need for care to be appropriate to one's stage of bereavement. Bereaved parents valued genuine connection, including human touch, feeling listened to, and continuity in their care team. They had differing views on the appropriateness of health care providers expressing emotion during the stillbirth journey. While some found any display of emotions

by health care providers distressing and burdensome, others interpreted this as empathetic. Although clinical skills were valued, other aspects of care that were appreciated included accessible language, access to religious and spiritual services, and continuity of care.

Many bereaved parents valued having a dedicated patient navigator to support them through their hospital stay; several referenced social workers as fulfilling this role. However, some parents reported their preference for a navigator with more knowledge about birthing in the setting of loss, such as a bereavement doula.

Some aspects of care specific to the stillbirth journey sparked frustration and dissatisfaction for some bereaved parents: "[My stillbirth] was not being treated with urgency. I'm frustrated with how the autopsy process ... [was] dealt with. [I was] frustrated with the [obstetrician] ... for the lack of support and interpretation of the genetics report."

Bereaved parents emphasized the importance of health care providers in giving them options, flexibility, and time to make informed decisions at each step of the stillbirth journey to allow them to feel a sense of autonomy and choice. Some felt rushed to decide whether to terminate their pregnancy after receiving a prenatal diagnosis. One parent expressed dissatisfaction with being hurried to decide whether to pursue an autopsy. Others felt the weight of the paperwork, funeral arrangements, and other decisions that had to be made in short succession: "[I felt a] lack of empathy from the social worker; you have to pick a funeral home before you leave the room."

Many bereaved parents emphasized the desire to create a network of support across BC to help reduce isolation during the still-birth journey. The types of networks envisioned varied. Most commonly, members included partners, family members, friends, spiritual counselors, health care providers, and peer navigators. The proposed role of health care providers in these networks was to provide holistic support, including care

for patients' mental, emotional, spiritual, and physical health. Bereaved parents also highlighted a desire for support from peers who had similar lived experiences of still-birth so they could feel understood and validated. Peer support workers were described as potential advocates and valuable sources of advice. One parent stated, "[There is a need to] create a network of [parents] who have been through it. Put out a call when someone enters the hospital so the parents can be greeted and looked after, after the stillbirth."

Another parent described having both instrumental and emotional support in activities of daily living from their support circle: "My people held space for me, even in silence. They fed me and made sure I bathed [and] brushed my teeth."

Finally, many parents shared their desire for improved guidance regarding self-care practices, including care for one's body and body image during and after stillbirth. Specifically, some revealed the lack of information they received on how to manage their childbirth afterpains and physical recovery. Several indicated that they had not been informed about the likelihood of lactating after stillbirth, or the options for suppressing lactation or donating their breastmilk: "Coming from [the] Okanagan, I wasn't provided with much information. When the milk started to come ... I didn't know where to look. I would [have liked] to know about my options . . . from a health care professional. That piece was missing."

Honoring the baby and recognizing the parents

All bereaved parents emphasized the value of engaging in activities that honored their baby and taking moments to validate their role as parents, such as singing to the baby, casting the baby's handprints and/or footprints, and taking photographs. Parents felt that mementos helped them process their grief and remember their baby. Some individuals said that saving these mementos in a memory box felt like an act of care for themselves and their baby. One parent said, "I found out a lot from the social worker.

She told me about 'Now I Lay Me Down to Sleep' for digital photos, which really helped me to have quality pictures.... Professional photography was good at how to pose with the baby, and I am holding the baby instead of the nurse taking the baby away to take pictures... by themselves. I treasure the photos with my baby, holding my baby."

Bereaved parents stated the desire to have health care providers treat them like parents and honor their baby. Individuals who experienced health care providers holding or caring for the baby or using their baby's name expressed feeling respected and safe. Many participants did not feel that health care providers sufficiently acknowledged their role as parents and thus felt excluded from decision-making processes. For many, the perceived erasure of their status as parents was hurtful: "[I would have] appreciated being treated like a mombeing asked what his name [and] weight [were]. It would have helped me to have felt cared for and treated like a mom."

Several parents expressed dissatisfaction with how health care providers treated their stillborn baby. Individuals felt the care their baby received was dehumanizing and sterile. They conveyed their wishes for health care providers to have honored their stillborn baby by treating their bodies with respect. One birth parent who delivered twinsone of which was stillborn and the other of which survived-shared how they felt health care providers neglected their stillborn child in favor of their live-born child. making them feel like the deceased baby was an "afterthought": "[I] never got an acknowledgment from [the] physician in [the] room about [my] son who did not survive."

Accommodating spaces

Bereaved parents highlighted the importance of health care providers providing mindful care to prevent unnecessary exposure to potentially triggering hospital settings that provoke increased anxiety and emotional pain. Ultrasounds were frequently described as triggering events.

The absence of a fetal heartbeat was a sensory experience that many remembered vividly. Additionally, one of the most distressing aspects was the prolonged wait time between being informed about the absence of a heartbeat and speaking with a physician.

Bereaved parents wished for spaces that could meet their needs for comfort and privacy. Steps taken to increase privacy and sensitivity, such as marking the door with a butterfly to signify a stillbirth, were often noticed and valued. Many expressed discomfort with unfamiliar health care providers entering their room unannounced without acknowledging the family. Additionally, several spoke about the experience of hearing live babies crying in adjacent rooms following their stillbirth. One parent stated, "The most memorable sound is the silence—so hearing all the other sounds of live babies is emotional and difficult to be around."

Sharing information with care

Bereaved parents stressed that information be shared using sensitive language and with considerate timing. Most parents objected to terms such as "fetus," "abortion," and "incompatible with life," which were described as hurtful and dehumanizing.

Several parents stated that health care providers had given them unsolicited advice that, while well intentioned, felt belittling and did not contribute to their healing. Language used by health care providers with the intention of conveying hope was often perceived as paternalistic, inappropriate, and invalidating. Examples included parents being told that "everything happens for a reason" or that they were "still young enough" to have another child.

Bereaved parents shared frustration that they were not provided with comprehensive, accessible resources on stillbirth. In general, having resources available in a variety of formats (e.g., digital, written) was preferred. Some said that attempts by health care providers to "sugarcoat" their situation interfered with the clarity of information shared. One parent commented "[I] did

not need them to coddle me throughout the journey."

Discussion

Stillbirth affects approximately 3000 families in Canada annually, and most stillbirths occur in hospital.^{2,4} Our study focused on identifying opportunities for improving stillbirth care at BC Women's.

Bereaved parents shared their vision of an integrated, stillbirth-specific system of care, provided by teams with appropriate knowledge and skill, and a network of support. Health care providers must possess not only clinical skills but also the nonclinical acumen to convey empathy without burdening patients. Stillbirth-specific care should include guidance on spiritual and/or religious support and postpartum self-care (e.g., breast milk donation or lactation suppression) and be coordinated by a dedicated patient navigator. Care must honor autonomy and be appropriate to individuals' stage of bereavement. Our initiative emphasizes the need to respect parents' pace when making decisions. Parents expressed feeling rushed to make choices, even when they had not fully processed all the information provided to them.

Bereaved parents wished for more of a focus on memorializing their baby through memory making, including singing to the baby, taking photographs, casting handprints or footprints, and making memory boxes. Those who did not have the opportunity to take part in such memory making expressed regret, having wished that others had guided them to do so. Health care providers were appreciated when they helped facilitate these experiences, both affirming the bereaved parents' identity as parents and honoring their baby.

Hospital spaces should be intentionally designed to minimize triggering situations and enhance comfort during the stillbirth journey. While ultrasounds are a necessary diagnostic step in stillbirth care, they were a significant source of distress. Several parents endured long wait periods without confirmation of stillbirth and discussion of subsequent steps. Bereaved parents highlighted the striking contrast between the silence surrounding their stillbirth experience and the sounds of crying babies from neighboring rooms. This underscores the need to re-evaluate the design of birthing wards and room assignments. While predicting stillbirth may not always be possible, thoughtful consideration could be given to assigning the birth parent to a room situated away from delivery rooms or equipped with enhanced soundproofing. Parents emphasized the significance of privacy and expressed appreciation for health care providers who respected their space by placing a butterfly on their door.

The interactions with health care providers had a lasting impact on parents' memories, even years after a stillbirth. The importance of health care providers delivering thoughtful and consistent communication, along with accessible resources in various formats, was highlighted. Parents said that certain words, such as "fetus," "abortion," and "incompatible with life," invalidated their experiences and intensified their pain during the stillbirth journey. Health care providers should encourage parents to express their preferred language when discussing their stillbirth and follow their lead in choosing compassionate terminology. Most parents agreed that they did not want to be "coddled" but desired genuine expressions of empathy. In light of these findings, it may be valuable to enhance training specific to stillbirth care, such as more mindful approaches to diagnostic procedures and information sharing. Training should be based on a standardized protocol for optimizing patient privacy and support during the hospital stillbirth experience, with the goal of fostering positive interactions between health care providers and people who experience a stillbirth.

Study limitations

This study was limited by a small sample size and homogeneity. All participants who chose to attend the workshops viewed themselves as bereaved parents and none had experienced the stillbirth via surgical dilation and evacuation. Given these

limitations, the aim of this quality improvement initiative was not to represent the diversity of stillbirth experiences across BC, but rather to serve as a starting point for ongoing efforts to optimize stillbirth care at BC Women's Hospital and Health Centre.

Conclusions

The hospital setting, designed primarily for the delivery of live infants, can profoundly shape the experience and memory of those who have a stillbirth in pregnancy. ■

Competing interests

None declared.

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Sexual lubricants: Practice tips

Considerations for making well-informed, tailored recommendations to patients.

Shauna Correia, MDCM, FRCPC, Katherine Rabicki, MD, MSc

ccording to the World Health Organization, sexual health promotion is "fundamental to the overall health and well-being of individuals, couples, and families, and to the social and economic development of communities and countries."1 In the realm of sexual health and general self-care, lubricants are often recommended to patients to aid with overall sexual satisfaction and to enhance pleasure, especially in the context of self-stimulation, anal play/intercourse, and dyspareunia, or, in patients with vulvas/vaginas, genitourinary syndrome of menopause.2 Despite this, patients often don't know which lubricants to use; commonly disclose that they feel shy about asking; and often use lubricants that may cause or worsen irritation or that may not be compatible with barrier contraception or sexual play aids, enhancers, and toys.

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Sexual lubricants are typically liquids or gels designed to reduce friction during sexual activity. There are three types of lubricants available: water-based, silicone-based, and natural oil-based [Table]. In general, products that should not be used as lubricants include baby oil, burn ointment, butter, cooking oil, mineral oil, fish oil, suntan oil, hemorrhoid cream, petroleum jelly, and body or hand lotions.

> Patients often don't know which lubricants to use, commonly disclose that they feel shy about asking, and often use lubricants that may cause or worsen irritation.

Vaginal pH is typically between 3.8 and 4.5, while rectal pH is closer to 7.0. Alteration in vaginal pH can lead to vulvovaginitis and is more supportive of HIV survival. According to the World Health Organization, optimally, the osmolality of a water-based lubricant should not exceed 320 mOsm/kg, though a more liberal goal of up to 1200 mOsm/kg is acceptable (note that most of the common, commercially available water-based lubricant products are between 2000 and 6000 mOsm/kg), with a pH between 5.0 and 7.0 for anal intercourse, or around 4.5 if vaginal intercourse is the primary activity.3 Moreover, some lubricants contain spermicides such as nonoxynol-9—a known mucosal irritant that can increase risk of HIV transmission—or additional ingredients that claim benefits like delaying ejaculation

or stimulating effects.3 These ingredients, including local anesthetics such as benzocaine, are not subject to medical regulation and are often irritants that should be used cautiously, if not avoided altogether. This information, which helps patients make an educated decision when choosing what to put inside their bodies, can be challenging to acquire for many commercially available products. Edwards and Panay's article "Treating vulvovaginal atrophy/genitourinary syndrome of menopause: How important is vaginal lubricant and moisturizer composition?" contains a table listing the osmolality and pH of some common commercially available water-based lubricants and vaginal moisturizers, which may act as a reference guide.7

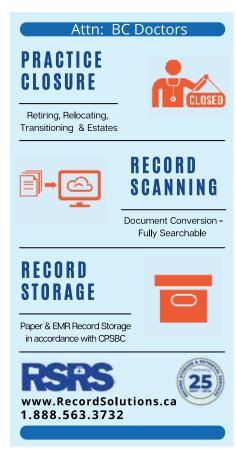
For most patients, when recommending a lubricant, we consider the types of sexual activities the patient engages in; STI/contraceptive barriers involved; sexual aids or toys involved; and skin conditions, known allergies, or tendencies toward yeast or bacterial vaginosis infections. We recommend avoiding products containing glycerin, parabens, propylene glycol, fragrance, flavor, or special ingredients that claim pleasure-enhancing properties. For many patients, if they're not using silicone sexual aids, a silicone-based lubricant works well and is generally less irritating and better tolerated. However, water-based lubricants are less expensive and more readily available, and we advise that patients who use silicone-based sexual aids keep a water-based lubricant available. To find a water-based lubricant that is iso-osmolar, we suggest that patients consider water-based lubricants rated as being "fertility-friendly" or that clearly advertise as being "iso-osmolar." If a person is

TABLE. Different types of sexual lubricants and their associated advantages and disadvantages.

Lubricant type	Compatibility with condoms and sexual aids	Advantages	Disadvantages	Commonly used varieties
Water-based	Compatible with all condoms. Compatible with sexual aids and toys of all materials.	 Widely available. Generally inexpensive. Universally compatible with condoms and sexual aids. Won't stain sheets. Washes off easily. 	 Quick-drying due to loss of water molecules; thus can leave sticky residue. May require frequent reapplication. No longevity during use in the shower or bath. Polymers added to reduce absorption increase product osmolality, which can damage vaginal, anal, and rectal cell integrity and increase the risk of STI transmission.³ Many contain potentially irritating preservatives (e.g., parabens) to reduce bacterial colonization.⁴ Flavored, glycerin-containing, and pH-disrupting products will alter vulvovaginal microbiome and may predispose the patient to vulvovaginitis. 	K-Y Jelly Wet Astroglide Pre-Seed Good Clean Love Sliquid
Silicone-based (polydimethyl- siloxane)	Compatible with all condoms (most common manufacturer-applied lubricant on condoms). Not compatible with silicone sexual aids or toys (will degrade the silicone material).	 Longer-lasting lubricant effect. More "cushioning" lubricant effect. Dry without leaving significant residue. Inert (e.g., do not grow bacteria or yeast). Do not affect vaginal, anal, or rectal pH. Do not have an osmolar effect. Compatible with latex condoms. Can be used in the shower or bath with a longer-lasting effect. 	 Generally more expensive. May stain fabrics (e.g., sheets, clothing). Can lead to slip and fall risk if dripped onto bathroom tiles or floors. Not meant to be ingested, though small amounts are relatively safe and not absorbed from the gastrointestinal tract. Flammable. 	 Uberlube ID Millennium Wet Platinum Lube Life
Natural oil-based	 Not compatible with latex (e.g., most condoms). Compatible with high- grade silicone aids. Not compatible with other materials or mixed plastics. Compatible with natural membrane (e.g., lambskin) and polyurethane condoms. 	 Widely available. Longer-lasting effect. Generally inexpensive. Likely the first lubricants used before the advent of commercial products. To date, no evidence of vulvovaginitis with coconut oil and is used as the base medium in commercially available vaginal suppositories.^{5,6} 	 Might stain fabric (e.g., sheets, clothing). Some oils (e.g., coconut) have innate antimicrobial properties and can disrupt vaginal flora (although coconut oil also has innate antifungal properties, which may have a favorable effect on vaginal flora for some individuals). May be comedogenic. 	Unrefined coconut oil Olive oil Sweet almond oil Yes

inclined to use an oil-based lubricant and latex contraceptives are not being used, we typically suggest unrefined or virgin coconut oil, as it is easier to apply due to starting as a solid at room temperature but quickly melting at body temperature. We advise purchasing an unrefined oil and using a spoon to scoop it from the jar to reduce bacterial contamination of the container. Judicious lubricant use during anal activity is also recommended, as the rectum produces no innate lubricant, and thus the mucosa is highly prone to injury from friction. Generally, silicone-based lubricants work well for anal intercourse that does not involve using a silicone toy, and some with thicker consistencies are available on the market.

In some circumstances, however, a sexual lubricant may not be enough to treat a patient's symptoms. Patients with vulvas/vaginas who present with sexual pain warrant a thorough history and gentle examination, as chronic skin conditions, vaginismus, and provoked vestibulodynia





(among other conditions) may be contributing to their discomfort, and lubrication alone is an inappropriate treatment. Consideration for a gynecology or sexual medicine referral should be given in these cases. Moreover, some perimenopausal and postmenopausal patients present having already tried a sexual lubricant yet continue to have dryness related to declining estrogen, which is known as the genitourinary syndrome of menopause. In fact, symptoms of vulvovaginal atrophy affect nearly half of all perimenopausal and postmenopausal individuals.8 In these instances, ensuring patients use an appropriate lubricant is prudent if their symptoms are limited to sexual activity. However, adding a longer-acting, pH-balanced vaginal moisturizer or topical estrogen (or dehydroepiandrosterone/ prasterone) may be paramount to improving their comfort and symptoms if the patients have no contraindications. 7 Typically, hypoestrogenic vulvovaginal tissue will be thin and pale, with loss of vaginal rugae. Sexual discomfort may also occur during breastfeeding or chestfeeding due to a hypoestrogenic vulvovaginal environment, and lubricants and vaginal estrogen should be considered for these patients as well. The bottom line is that when a patient presents with sexual health, reproductive, or genital pain concerns, care providers should ask what type of lubricant they're using (if

any) and be well informed to make tailored suggestions compatible with the patient's unique sexual functioning situation. ■

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Cold stress and outdoor workers: Safety considerations for your patients

anada has a severe winter climate, and the cold weather presents risks to your patients who work outdoors. According to the Canadian Centre for Occupational Health and Safety, many occupations particularly at risk of cold-exposure injuries are in the construction, utility, and transport industries, and in emergency response.1 Discussing the health risks of cold stress with at-risk patients and providing guidance may help prevent cold-exposure injuries.

Health risks of cold stress and overview of management

Cold environments can affect people in three ways: through temperature, wind

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speed, and humidity. Alone or in combination, these can cause cold-stress injuries such as frostbite and hypothermia. Below is a summary of key management points for these conditions. For a comprehensive review, please see the references.²⁻⁴

In cases of frostbite, the skin and underlying tissues, including fat, muscle, and bone, can be frozen, and auto-amputation can occur. Skin may appear waxy and may be hard to the touch, and the affected area may be numb. It is imperative to avoid direct heat and not rub or massage the affected area. Body heat or warm water (40–42 °C) can be used to gradually warm the affected area, but only if refreezing can be avoided.2-4

Hypothermia is the most serious and life-threatening cold injury and is due to a sustained core temperature below 35 °C. Symptoms include shivering, difficulty walking and talking, and confusion, and

can progress to loss of consciousness and cardiac arrest. Immediate medical assistance is required, and the patient must be moved indoors. Any wet clothing should be removed, and the patient should be rewarmed cautiously.^{2,3}

WorkSafeBC guidance

WorkSafeBC's OHS Guidelines include guidelines for cold exposure. The Table is based on one such guideline and is an example of how the risk of cold-exposure injuries can be reduced.5

Factoring in windchill

Windchill is the combination of cold air plus wind speed and is the felt temperature on exposed skin. Generally, as wind speed increases, felt temperature decreases. The risk of health effects like frostbite typically increases at windchill values below -27 °C.6

Continued on page 351

TABLE. Work/warm-up schedule for workers conducting moderate to heavy work activity.

Air temper- ature (°C), sunny sky	No noticeable wind		8 km/h wind		16 km/h wind		25 km/h wind		30 km/h wind	
	Max. work period	No. of breaks	Max. work period	No. of breaks	Max. work period	No. of breaks	Max. work period	No. of breaks	Max. work period	No. of breaks
−26 to −28	Normal	1	Normal	1	75 minutes	2	55 minutes	3	40 minutes	4
−29 to −31	Normal	1	75 minutes	2	55 minutes	3	40 minutes	4	30 minutes*	5
−32 to −34	75 minutes	2	55 minutes	3	40 minutes	4	30 minutes*	5	Non-emergency work should cease.	
−35 to −37	55 minutes	3	40 minutes	4	30 minutes* 5 Non-emergency work should cease.					
−38 to −39	40 minutes	4	30 minutes*	5	Non-emergency work should cease.					
-40 to -42	30 minutes*	5	Non-emergency work should cease.							
–43 and below	Non-emergency work should cease.									

^{*} There is a danger that exposed skin may freeze; appropriate covering precautions must be taken.

The schedule is for a 4-hour shift and assumes workers are wearing dry clothing. Each break should be 10 minutes long and taken in a warm location, and a 40-minute break should be taken in a warm location after the shift ends.

Housing: An important determinant of health

ousing is an important social determinant of health and well-being. Unfortunately, many Canadians, including British Columbians, do not have access to adequate housing. Statistics Canada defines a household as being in core housing need if their housing is unsuitable (e.g., not enough rooms), inadequate (e.g., in need of repairs), or unaffordable, and if they are not able to afford alternative housing in their community. In 2021, 10.1% of Canadian households faced core housing need, with BC having the highest provincial rate, at 13.4%. There are several pathways through which housing can impact physical and mental health, including housing affordability, residential stability, housing conditions and quality, and neighborhood factors.

Housing affordability

While there is no single definition of housing affordability, the Canada Mortgage and Housing Corporation defines it as housing costs that are less than 30% of a household's pretax income.2 The 2021 census showed that 25.5% of people in BC spend more than 30% of their income on housing, the highest of any province.³ The health impacts of housing affordability are generally understudied, but there is evidence for adverse physical and mental health impacts. Additionally, a lack of affordability can strain people's ability to pay for things such as nutritious food or prescriptions.4

Residential stability

Residential stability refers to a household's ability to voluntarily remain in their home,

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

free from dispossession or harassment.⁵ Involuntary moves can occur due to the inability to afford increasing rents or mortgage payments, eviction, foreclosure, or natural disasters. Residential instability is associated with many negative health outcomes, including poorer self-rated health and increased emergency department use.6 Housing foreclosures following the recession of 2007-2009 were associated with increased depression, anxiety, alcohol use, psychological distress, and suicide.⁷

> In 2021, 10.1% of **Canadian households** faced core housing need, with BC having the highest provincial rate, at 13.4%.

Housing conditions and quality

Housing conditions and quality encompass a wide variety of factors that occur within the home that can impact human health.⁵ For example, people can be exposed to lead through drinking water running through lead pipes or through lead-based paints in older homes. Thermal regulation is another important component of housing quality, and the inability of some homes to provide sufficient cooling contributed to mortality and morbidity experienced during BC's 2021 heat dome and other extreme temperature events. Additionally, pests, molds, and allergens can contribute to allergic sensitization, asthma, and other respiratory health issues.

Neighborhood factors

Neighborhood factors and the built environment where people live shape opportunities that can have significant impacts on health.5 There is evidence that areas with high socioeconomic deprivation have poorer access to health-promoting resources and greater exposure to environmental harms.8 Having access to reliable and affordable public transportation can promote access to health-promoting activities such as seeking medical care, going to the gym, accessing healthier food, and building social connectedness. Living in a neighborhood that is more walkable and has more green spaces and parks can promote increased physical activity, while greater access to full-service supermarkets can contribute to healthier

The evidence linking housing and health is clear, but there is a need to further understand impacts in the BC context. Regardless, it is important for clinicians to recognize the many ways housing can both positively and negatively impact health.

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Environment and Climate Change Canada provides guidance on how to estimate and respond to windchill values.7 Your patients who work outdoors may find this guidance useful.

To learn more

For more information, consult www.work safebc.com/en/health-safety/hazardsexposures/cold-stress.

To speak with a WorkSafeBC medical advisor about a patient with a work-related illness or injury, submit a RACE request (www.raceconnect.ca). If you or your patients have workplace safety questions, call the Prevention Information Line at 1 888 621-7233. ■

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Dr Tracy Pickett 1968-2023

On the 1-year anniversary of Dr Tracy Pickett's passing, we would like to take a moment to remember our dear colleague, mentor, and friend. Tracy passed away 27 September 2023.

A deeply dedicated physician, Tracy began her career in medicine in 1995 and became a fellow of the Royal College of Physicians and Surgeons of Canada in 2000. In the course of her work as an emergency physician at Vancouver General, St. Paul's, and BC Children's Hospitals, she became interested in the practice of clinical forensic medicine.

Through her pursuit of this passion, she earned a master of forensic medicine and the prestigious Sir John Monash Medal for excellence in graduate and postgraduate coursework study. Following this, she was granted a prestigious fellowship with the Royal College of Pathologists of Australasia in 2015 that led to her becoming the only physician in North America to hold both an academic degree and a fellowship in clinical forensic medicine. She was a trailblazer in every sense of the word.

As a clinical professor, Tracy was a regarded leader, mentor, and educator in the University of British Columbia's Faculty of Medicine for over 20 years, lecturing around the world on gender-based violence, trauma, and forensic medicine to diverse groups ranging from elementary school children to the judiciary and academics, and authoring journal articles, webinars, and online modules.

A strong advocate for education and reform, Tracy used her expertise in both medicine and forensics to support education and outreach in community service agencies and educational institutions across the province and the country. Most notably, she was included in the list of experts at the International Criminal Court and gave expert testimony to courts in Canada and internationally.

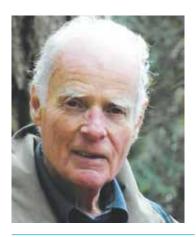
Tracy's many contributions, coupled with her empathy and compassion, impacted countless Canadians and effected systemic change locally, nationally, and internationally. Her legacy as a pillar in the forensic community, a leader in social justice, and a passionate advocate for patients will endure.

We also knew Tracy as a devoted mother and partner, athlete, and lover of animals. Her unique humor, humble presence, and insatiable curiosity had a remarkable ability to brighten any room.

We will remember Tracy not only for her professional achievements, but also for the kindness and warmth she shared with everyone she met. And we will honor her and her memory by embodying the same compassion and dedication in our work, now and in the future.

Thank you, Tracy, for everything you've given us. You continue to be a cherished part of our hearts and our work.

—BC Women's Hospital Sexual Assault **Service team**



Dr Thomas Paul Broome 1932-2023

Dr Thomas Paul Broome and I both sang in the Victoria Choral Society for years. He was a bass, while I'm a tenor. More than once, he shared, "The tenors sound good." For a while, he hosted sectional rehearsals for the basses in his living room.

Paul worked as an internist in Victoria. I came across one of his consults for a mutual patient, who had respiratory symptoms. The consult mentioned that Paul had instructed the patient in diaphragmatic breathing, something choir directors have choristers do at the beginning of every rehearsal.

The following is an edited excerpt from an obituary that appeared in the Times Colonist, 16-18 September 2023.

On 3 September 2023, Dr Thomas Paul Broome passed away at age 91. He was predeceased by his wife, Ann Theresa Broome, leaving behind his son, David Broome. In recent years, Paul spent much of his time with his friend Patty Grant. She provided friendship, support, and a new zest in his life.

Paul spent the majority of his energy helping others. He looked back fondly at his time at Queen's University's School of Medicine, which he graduated from in 1956. For 41 years, he had an internal medicine practice in Victoria, retiring in 2011.

After retiring, he enjoyed every day with a community of friends and activities, including choirs, weekly Spanish tortillaperfecting sessions, the Goodtimers coffee group, walks, visits to Hermann's Jazz Club, and time spent at his Pender Island cottage.

—Robert Shepherd, MD Victoria



Dr Asoke Kumar Dutt 1928-2024

With heavy hearts, we announce that Dr Asoke Dutt, 95, passed away peacefully earlier this year. He is beloved of his wife, Hilda; children, Sumitra (Brian) and Indira (Stephen); and grandchildren, Manjulika, Khirode, Tushar, Rakesh, and Rajiv.

Born and raised in Kolkata, Asoke trained at Calcutta Medical College before completing his surgical fellowship in the United Kingdom. Asoke and Hilda met at work in Dartford, England. They moved to Ottawa during Expo 67 and were swept into the excitement and aspirations of their adopted country. Unwilling to endure another Ottawa winter, however, Asoke and Hilda drove across Canada—destination Vancouver—in 1968.

Asoke wholeheartedly set his roots in Maple Ridge, becoming an integral part of the medical community. He was the first resident surgeon in Maple Ridge, a vital service for a growing community often cut off from Vancouver by the Pitt River swing bridge. One of his early cases involved being called to reattach a young boy's arm, which had been pulled off by a cougar on the Pitt River dikes before the boy's father managed to frighten the cougar away. The boy was rushed to BC Children's Hospital for further care, and his arm was saved. Asoke made the OR his teaching arena for all the staff there. He also operated at Mission Memorial Hospital for years, before the Mission Bridge brought Mission much nearer to the larger centre of Abbotsford. There, early on, he was able to take a severely injured man with a partially amputated leg into the OR within 10 minutes of the ambulance arriving.

An early adopter, Asoke purchased Maple Ridge Hospital's first gastroscope out of pocket, while training in Japan. It was 1973, and Maple Ridge residents had access to gastroscopic investigation before Vancouverites did. Asoke started a colonoscopy clinic before Maple Ridge had gastroenterologists. Before there were local respirologists, he used a Bird universal medical respirator to save two patients with smoke inhalation. Asoke also spearheaded the acquisition of a mammogram machine and later laparoscopic surgical equipment for Maple Ridge Hospital (now Ridge Meadows Hospital).

Asoke's interest in community extended beyond medicine. He was curious, was widely read, and loved discussion. He reconnected with his cultural roots volunteering as president of the Lower Mainland Bengali Cultural Society for several years. In 1987, he founded Physicians with Interest in South Asia, alongside Kesaval Chetty, Arun Garg, Gurdev Gill, Ram Ready, and

Chuni Roy, to engage physicians in improving South Asian health outcomes. In Bengal, he founded a school for at-risk young women. He enjoyed and supported the arts, theatre, film, and classical Indian music.

Knowing one's home was important to Asoke. He explored much of British Columbia and Canada with his family. Driving the Alaska Highway on its 50th anniversary and exploring Haida Gwaii were favorite highlights. He also returned to many areas of India and Tibet. After retirement, he explored a liberal arts education, which he didn't get as a physician, to complement his travels. At Simon Fraser University, his studies included opera, Ibsen, Chinese poetry, Russian literature, apartheid, and On the Origin of Species.

His obligation to stay in Maple Ridge while on call turned Asoke into a thoughtful and determined gardener. He could talk about his garden plans for the next year and the next decade. He sourced rare trees and plants for his garden everywhere, from the VanDusen Botanical Garden in Vancouver to Minter Gardens in Rosedale. He rounded on his plantings daily. At one time, there were 60 producing nut trees on the property. He also had an array of apples, cherries, plums, peaches, persimmons, and kiwis. He started attending Vancouver Rose Society meetings in the 1970s and later became a member of the Fraser Pacific Rose Society, developing his garden to accommodate 270 rose bushes. Asoke loved to produce food for his table, where he loved to host his children, grandchildren, and friends. He will be missed by them all.

Please consider donating to the Ridge Meadows Hospital Foundation (https:// rmhfoundation.com/donate/).

- -Sumitra Robertson, BA
- —Hilda Stanger, MBBS, FRCPC **Maple Ridge**

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Place a classified ad: bcmj.org/classified-advertising. Payment is required at the time that you place the ad.

New classified advertising categories: The new Events section can be used for CME or other events, and the Vacation Properties section has been renamed Accommodation. The same rates apply.

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RICHMOND—MEDICAL OFFICE FOR **SALE**

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Find more classified ads online:

bcmj.org/classifieds.

CME Calendar: Discontinued

To place a CME ad, use the Events section in the classified listings (same rates apply).





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