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.

Re: Driving toward injury-free roadways

As a car-free family physician who has been campaigning against overdependence on personal motor transportation for over 30 years, I welcomed Dr Schwandt's editorial in the June issue of the *BCMJ* [2024;66:146]. I have long been dumbfounded by Canadian politicians' passivity regarding the profoundly negative medical and environmental impacts of car culture. Not only do we need robust measures to make driving slower, less convenient, and more expensive, but we must also legislate limitations on the width and height of motor vehicles.

—Thomas DeMarco, MD
Whistler

Heatstroke and sweating

Thank you for the timely article titled "Preventing heat-related illness: Identifying workers at risk of heat stress due to hotter days in the context of climate change" by May, Janke, and Maruti [*BCMJ* 2024;66:179-180]. We would like to comment on the description of heatstroke signs, specifically the description of the skin as being dry and nonsweating. While such presentation is typical for classic heatstroke, which occurs in the elderly, small children, and some deconditioned individuals, it is not typical for exertional stroke, where metabolic heat generation plays a role. This type of heatstroke can be seen in those who perform physical work in hot environments. Exertional heatstroke may present with wet and sweating skin. Epstein and Yanovich[1] describe the two types of heatstroke well. Importantly, listing dry skin without sweating at the beginning of the description of signs and symptoms is misleading, as it may lead to delayed early identification of exertional heatstroke. We suggest it is important to inform clinicians and the public not to rely on dry skin and the absence of sweating as important signs of heatstroke.

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The role of Real-Time Virtual Support in improving rural health care delivery

In urban settings, the scope of practice for family physicians is often narrowed, with most solely managing clinic patients.[1] Rural family physicians may face more varied challenges. Due to a lack of medical specialists in many rural areas, these doctors need to adopt a broad scope of practice, spanning both acute and chronic conditions across every age group. Depending on where they are situated, rural family physicians often require further training in advanced skills such as adult and pediatric resuscitation, simple fracture reduction, casting techniques, venous access, lumbar puncture, endotracheal intubation, and obstetrical care.

For rural family physicians, skills that are not used regularly are susceptible to decline. In Northern British Columbia's rural communities, physicians encounter obstetric and pediatric cases less frequently due to a predominant elderly population.[1] As a result, when faced with such cases, especially complicated deliveries or acutely ill infants, physicians may grapple with challenges. Furthermore, trauma cases are infrequent in rural emergency departments compared with bustling urban centres, which can pose challenges when they do arise.[2] Continually participating in training programs to prepare for these rare cases becomes impractical for rural physicians. It detracts from time spent serving already underserved communities, and access to the training facilities, which are often located in distant urban areas, is both time-consuming and challenging.

The experience gap faced by rural family physicians in addressing infrequent cases has been substantially bridged by telehealth consulting services.[3] In April 2020, British Columbia introduced the Real-Time Virtual Support initiative, which provides around-the-clock clinical assistance to health care providers in rural regions.[4] These programs facilitate direct videoconferencing, guiding health care professionals through diagnosis, management, and use of medical equipment.[3] The program's scope has broadened since its inception and now includes phone access to specialists in pediatric, maternity, and newborn care.[4] Highlighting the program's evolution, Rural Urgent Doctors in-aid (RUDi), one of the four Real-Time Virtual Support programs, garnered only a couple calls upon its launch in 2020.[5] In 2023, RUDi doctors answered an average of 34 calls over a 12-hour shift.[4] Due to high demand, the service sometimes encounters delays.

The challenges encountered by rural family physicians and nurses in managing infrequently encountered conditions require innovative solutions. While Real-Time Virtual Support has provided a safety net, expansion to more rural communities, increased funding, and recruitment of more specialists to ensure timely support are essential.[6] Specialists are encouraged to get involved by signing up at https://rccbc.ca/stay-connected/contact-us.

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Improving ambulance services for effective rural emergency care

Rural BC emergency departments are often unequipped to treat a variety of emergencies, including major trauma, surgical emergencies, severe burns, complicated obstetric cases, neurological emergencies, complex cardiac cases, complicated pediatric cases, toxicological emergencies, rare or severe infectious diseases, and mental health emergencies. This is because rural emergency departments primarily depend on physical examinations, basic laboratory investigations, and point-of-care ultrasounds for diagnosis.[1] It is often necessary to transfer patients to urban centres by ambulance for further assessment and treatment.

BC Emergency Health Services is a centralized dispatch system that coordinates ambulance responses across the province.[2] In our opinion, at least two ambulances should be on standby near each sizable rural community. However, current realities often deviate from this ideal. In urban areas, a fully equipped hospital is often only a short drive away. In contrast, rural ambulance services may encounter hours-long journeys, during which they are unavailable for other emergencies. In rural areas, a limited number of ambulance units, a lack of paramedics with advanced training, and staffing shortages can lead to significant service gaps.[3]

In the face of this challenge, telemedicine, such as the Emergency Physician Online Support program in BC,[4] has become a vital resource. Paramedics can now receive real-time guidance from physicians before they reach the hospital.[4] However, signal connectivity in rural areas can be poor, and while telemedicine can guide care, it cannot replace the need for increased staffing and more equipment on rural ambulance units.

Operational costs for ambulance services can also rise in rural settings. Longer runs increase fuel consumption and wear and tear on vehicles. Unfortunately, reimbursement models, particularly in regions where such services might be publicly funded or subsidized, may not account for these added operational demands, placing financial strain on these service providers.[5]

To truly alleviate the pressures on rural ambulance services, the core issue—funding and expanding rural hospitals—must be tackled head-on. In the interim, recruiting more paramedics, better equipping ambulances, delivering more advanced training to paramedics, integrating telemedicine use, and increasing funding for ambulance services are crucial temporary solutions.

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Physician knowledge gaps on concussion care

Concussion has a high burden of injury and risk of secondary sequelae across all Canadian demographics in various settings.[1,2] Despite concussion's high prevalence, care is variable due to gaps in knowledge and evidence-based standardized management.[2,3] Recent advances (e.g., 6th International Conference on Concussion in Sport consensus statement on concussion in sport, American Congress of Rehabilitation Medicine diagnostic criteria for mild traumatic brain injury) have aimed to improve concussion outcomes and reduce prolonged recovery.[1] Recommendations are continually produced surrounding concussion knowledge, diagnosis, and management; however, there is a disconnect with dissemination to our frontline providers.

A 2018 Canadian public opinion survey of 391 physicians and medical professionals evaluated awareness of concussion diagnostic and management tools.[2] Approximately 60% recognized the Canadian Guideline on Concussion in Sport and the Sport Concussion Assessment Tool (SCAT; a standardized objective concussion diagnostic tool), while 15% were unaware of any commonly used tools.[2] Additionally, there is limited formal medical training in concussion.[4] A 2023 study on medical students and residents at Memorial University of Newfoundland found that 42.2% had concussion education and 25% could identify red-flag symptoms.[4] Although these statistics are limited, there have been improvements in concussion knowledge.[3] Between 2013 and 2022, the use of the SCAT by family physicians increased from 34.2% to 65.0%, and return-to-play guidelines increased from 29.8% to 56.1%.[3] Treatment recommendations shifted toward brief rest (24 to 48 hours) and subthreshold or modified exercises instead of complete rest.[1,3]

Numerous strategies can help narrow the gap between research and frontline practices. Starting with training, standardized updated concussion education is recommended across all Canadian medical schools to create a baseline of information. Some universities, such as the University of British Columbia, have included concussion education in their curriculum; however, uniform training across the country is limited.[4,5] Additionally, given the newest protocols incorporating nurse practitioners and other medical professionals to treat concussions, reviewing this education may be worthwhile.[1]

Many of our frontline providers are not up to date with the newest recommendations for concussion.[2] This gap can be addressed through CME, governing bodies (e.g., Doctors of BC, Divisions of Family Practice) endorsing the use of educational resources and guidelines (e.g., BC Guidelines and Protocols Advisory Committee, Pathways BC), updating commonly used websites (e.g., UpToDate, DynaMed), and social marketing or educational campaigns. CME is an effective avenue for knowledge translation across various subspecialties, and 53.7% of BC physicians dedicate 2–3 hours/week to professional development.[5] The Concussion Awareness Training Tool—a free, online, up-to-date, evidence-based educational tool endorsed provincially through the BC Ministry of Health and nationally through the Concussion Harmonization Project—is an effective CME resource that improves knowledge and concussion diagnostics and management.[5] Although successful, numerous CME barriers to knowledge translation have been reported, including time, accessibility, and awareness of resources and education that need to be addressed and mitigated.[5]

A substantial gap often persists between evidence-based practices and the delivery of frontline care in Canada, impacting concussion diagnosis and management. Addressing this disparity demands comprehensive strategies encompassing standardized education, ongoing training, and updated guideline and resource dissemination.

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