Canadian Medical Education Journal

Original Research

Providing a safety net: a qualitative study on supporting medical students during goals of care discussions

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Published ahead of issue: Oct 21, 2025. CMEJ 2025 Available at https://doi.org/10.36834/cmej.80430

Abstract

Background: Engaging in effective goals of care (GOC) discussions with patients is a critical skill for physicians. Medical students, however, often feel unprepared, unsupported and uncomfortable leading these conversations. We undertook the current study to explore senior medical students' experiences with GOC discussions during their clinical training, examining when and how (and when not and how not) GOC discussions impacted them and the influence of supervision on their GOC learning.

Methods: We used qualitative interpretive description as our methodology. Fourth-year medical students at a single university were invited to voluntarily participate. Qualitative semi-structured interviews were used to foster rich discussion about students' GOC experiences during their clinical rotations. Data collection and analysis proceeded iteratively. All investigators participated in data analysis using an inductive, constant comparison approach to identify themes and subthemes.

Results: Eleven fourth-year medical students were interviewed between 2021 and 2022. As students observed and conducted GOC conversations, participating in the conversation with a supportive clinical supervisor and with patients they knew appeared to positively influence students. In less supported environments, students experienced challenges during GOC conversations, reflected through perceived limitations and feelings of uncertainty. Supervisors also played an important role in helping students navigate a range of emotional responses to these conversations.

Conclusions: Rather than shielding students from difficult conversations, supervisors can positively impact students' experiences by supporting them to engage in GOC discussions, thereby providing them with the skills to support patients through challenging moments.

Résumé

Résumé français à venir.

Introduction

Goals of care (GOC) discussions are critical conversations which focus on exploring a patient's understanding of their illness, their values and their wishes to better inform their care.[1] While typically undertaken when a patient is facing serious illness or nearing end-of-life, GOC conversations can occur at any point in a patient's illness journey. These conversations are intended to be a guided dialogue between patient and provider (i.e. bi-directional), and can be initiated by either participant.[1] The conversations may cover a broad range of information including medical updates, sharing understanding of prognosis, and delving into a patient's understanding of their illness as well as their hopes, fears, and other topics important to them.[1] These conversations can lower health service utilization, as well as improve the quality of care for patients and their families coping with serious illness.[2] To provide holistic care to patients, gaining competency and comfort with these conversations is a necessary skill for clinicians.

However, physicians, particularly at the early stages of training, often report discomfort with conducting GOC conversations due to inadequate experience and lack of skills.[3] This lack of preparation may be due to inadequate or insufficient learning experiences and lack of standardization in training. A 2020 study found that an estimated 29.7% of Canadian medical students completed a clinical rotation in palliative care, and two-thirds of these students came from the only two medical schools which had mandatory palliative care rotations.[4] In other studies, medical students reported low confidence and negative interactions with end-of-life care and often felt unprepared when approaching GOC conversations which sometimes led to students experiencing emotional distress.[5,6] Furthermore, even when they did engage in GOC conversations, learners reported receiving little direct observation and feedback.[6–8] Despite this, medical students often express awareness of the importance of palliative care in their professional lives.[9,10] As these learners progress to becoming residents and faculty, the gap between recognizing the importance of GOC conversations and feeling inadequate in leading these conversations may contribute to negative clinical experiences and dissatisfaction with GOC conversations.[11,12]

In the broader medical education literature, supervisors play an important role in shaping learners' clinical education. Workplace learning occurs through active participation, and supervisors are both gatekeepers to clinical opportunities as well as central to shaping student development through their co-construction of knowledge.[13] The benefits of a supportive supervisory relationship on learning is foregrounded in the educational alliance framework within health professions education, wherein individual and social processes of knowledge construction are interrelated.[14] Inadvertently examining the supervisory role in GOC conversations, a recent study focussed on medical students at one institution showed GOC conversations were often undertaken with minimal supervision and support. Students in this study found many GOC conversations ethically challenging and a source of significant emotional distress.[6]

If engaging in effective GOC conversations is a critical skill for physicians, then ongoing examination of learners' experiences with these conversations across multiple contexts, and the influence they have on learning and development, are crucial. Previous studies have examined methods of improving GOC discussion education programs,[15,16] explored the differences in conceptualizations of GOC,[2] or focused predominantly on physicians later on in their training.[17,18] However, the role of supervisors in fostering medical students experiences with and learning of GOC conversations has been under-explored. Furthering this knowledge could facilitate faculty development efforts to support supervisors in teaching these critical conversations, and to provide medical students with strategies to feel more emotionally supported to handle these difficult, yet essential discussions.

In this study, we explored senior medical students' experiences with GOC discussions during their clinical training, examining when and how (and when not and how not) GOC discussions impacted them and the influence of supervision on these encounters.

Methods

We used qualitative interpretive description as our guiding methodology as it is a flexible, interpretive, qualitative methodology that can facilitate the examination of recurrent patterns across subjective experiences.[19] Interpretive description allows us to address complex experiential phenomena while focussing on practical outcomes. This methodology was coherent with our aim of understanding medical students' experiences of goals of care conversations.

Reflexivity

We explicitly acknowledge our role as researchers taking part in an act of knowledge construction. BC was a medical student during the project, and is now a resident. Having

an early trainee with an interest in palliative care brought the student perspective on the relevance of GOC conversations. CB and MC were each palliative care residents at the time of joining the project, and are now consultants. They brought the perspective of clinicians immersed in GOC conversations as part of their daily practice, who also valued teaching the conversational skills to students and residents. Throughout our analysis we recognized that we could not separate our personal experiences of GOC conversations either as learners or faculty and discussed these explicitly with each other to inform both the data collection and analysis. RH is a palliative care physician and health professions' education researcher who brought a socio-cultural perspective on direct observation and feedback, as well as the role of supervisors, which informed our analysis.

Goals of care definition

While there are many available definitions, we defined a GOC conversation as a discussion between a patient and a provider that explores the patient's understanding of their illness, their values, their wishes for their care, and their fears (see Supplementary Materials). These dialogic conversations are distinct from breaking bad news conversations as typically the patient and provider will already be aware of the underlying diagnosis. Although these conversations are often initiated by healthcare providers, patients also initiate and direct conversations. Providers often initiate these conversations when significant clinical changes have or are expected to occur. This definition is grounded in the perspective of the Serious Illness Conversation guide, which was developed by Ariadne Labs in Massachusetts, United States to support healthcare providers in conducting GOC conversations, and uses patient tested language in the guide.[20]

Context

The University of British Columbia (UBC) undergraduate medical program is a four-year distributed curriculum, with two years of pre-clinical predominantly classroom-based teaching, followed by two years of clinical rotations. Palliative care and GOC teaching during the pre-clinical years are interspersed across lectures, workshops and small group case-based learning events, which span a variety of clinical topics (e.g. heart failure, intensive care, oncology etc.). However, there are only a handful of sessions focussed solely on palliative care and GOC. During the clinical years, GOC learning is primarily experiential, with students often taking the initiative to seek out opportunities to participate in these conversations with patients during their clinical rotations. Participants in our study could have observed or participated in GOC conversations during any of their clinical rotations. Any dedicated palliative care rotations were undertaken as an elective.

Population and recruitment

Voluntary participation in the study was offered to all 288 fourth-year medical students at UBC during the 2020-2021 and 2021-2022 academic years, through the program's list-serve and related medical student interest groups. All volunteers were included in the study. We specifically recruited fourth-year students as they were nearing completion of their undergraduate education and would have the most experience with GOC conversations during their clinical rotations. We were interested in students' GOC experiences on any clinical rotation, as several medical students did not report completing any formal palliative care rotations during their clerkship. Students interact with different supervisors during each rotation from a variety of specialties and training levels including staff physicians, medical fellows and resident trainees.

After interviewing the initial volunteers, we engaged in purposive sampling, using a snowball sampling technique where we asked current participants to approach peers who they knew had less positive GOC experiences during clerkship. We continued recruiting participants with confirming and disconfirming viewpoints on these conversations until theoretical sufficiency was reached.

Data collection and analysis

Data collection and analysis proceeded iteratively. Individual, virtual, semi-structured interviews were our primary source of data. MC or CB conducted and audio-recorded the individual student interviews, as well as maintained field notes. The semi-structured interview guide (final version available in Supplementary Appendix) aimed to foster rich discussion from participants about their GOC conversations during clinical rotations and was derived from the interview guide developed by Wang et al.[6] We began by exploring the participant's understanding of a GOC conversation. If their understanding differed significantly from our definition, we shared our definition with them in order to frame the subsequent interview questions. As data analysis progressed, we modified the interview guide to elaborate our understanding of our identified themes (see Supplementary Materials). Interviews were transcribed verbatim and de-identified.

The team met frequently during data collection to undertake analysis of the transcripts. All interviews were read and examined in detail to elucidate the experiences

and perspectives described by participants. Three team members (MC, CB, RH) independently open-coded the first five transcripts and iteratively developed our code book. Subsequent interviews were coded by CB and BC, with frequent team meetings to review the coding and develop themes. Themes centred around shared ideas or meanings that reflected groups of codes. We continued to move back and forth between codes and themes in an iterative data analysis process. Memos were also created as part of the analytic process. We used constant comparison analysis across the eleven transcripts to refine our codes and themes. During the final stages of analysis, we brought in sociocultural theory as a sensitizing concept that focused on the importance of the relationship between student and supervisor. Sociocultural theory suggests that learning happens in and through interaction, negotiation and collaboration with others and occurs within a cultural context.[21] Using this perspective as a sensitizing concept allowed us to examine students' perceptions of their relationship with supervising faculty and when and how the relationship influenced their learning during GOC conversations. Throughout our analysis, we used a collaborative whiteboard program, Miro,[22] to visualize the relationship between codes and themes. We coded and organized our data using NVivo software (QSR International, Doncaster, Victoria, Australia).[23]

Ethical Considerations

Our study was approved in 2021 by the UBC Behavioral Research Ethics Board as well as UBC Medicine's Research Access Committee (H20-03869).

Results

Eleven fourth year medical students between the ages of 24-32 were interviewed between 2021 and 2022. They expressed a diverse range of interests for their future residency applications, including palliative care, family medicine, general surgery, psychiatry and internal medicine. All participants had observed GOC conversations during their clinical experiences and all but one student had had the opportunity to lead part of a GOC conversation. Participants' observed a median of 7.5 conversations (range 2-24) and led a median of 3.5 GOC conversations (range 0-12) during clerkship.

Supervisors had a strong influence on students' experiences with GOC conversations. Three overarching themes encompassed when and how (and when not and how not) GOC experiences impacted student participants: a) supervisors' role in supporting students' GOC learning, b) GOC experiences build students' confidence in caring for patients and c) GOC conversations evoke students' emotions. Leading conversations within a supportive supervisory relationship and with patients that they were caring for, contributed to participants' feeling more responsibility towards their patients and a growing sense of autonomy. Without support and opportunities, a participant could experience negative emotions and feel they had a limited role in their patient's care.

Theme 1: Supervisors' role in supporting students' GOC learning

In almost all the GOC conversations described by our participants, the participant either observed or led the conversation with a faculty or resident supervisor present with them. Across the diverse experiences described by participants, they were rarely in unsupervised situations. These experiences with supervisors helped provide high-yield learning opportunities for participants and improve their communication skills.

The opportunity to observe residents and supervisors conduct GOC conversations contributed to participants' sense that they were gaining important skills in this domain of patient care. Observing conversations also led to participants keying in on ways they did and did not want to conduct conversations in the future, as described by this participant:

> *And often times I would observe the doctor or resident talking and I'd be like oh, that's good. I'm going to keep that in my own arsenal. And then other times I'd observe doctors and be like oh, I don't like how they did that. I'll make sure to not do something like that. MS11*

However, observing supervisors could cause discomfort for some participants, particularly if they had not been directly caring for the patient, as one participant described:

> *I felt a little bit uneasy because I felt like I'm just an observer and I have nothing really to contribute here. So I felt like I was sort of an extra person in this serious conversation where – you know, if my family members had this conversation, like would they really appreciate someone extra being there and not really contributing, just there to learn. MS9*

This discomfort was typically mitigated if the supervisor "*just did what a good teacher would do," MS10*, which included briefing the participant on the patient's clinical situation, highlighting what to pay attention to, and introducing the participant to the patient and family and asking permission for them to be there. In conversations where they observed their supervisor, participants felt

their learning was enhanced by supervisors who took the time to debrief the conversation.

Many participants shared that a supportive relationship with supervisors improved their GOC experiences, creating a safe environment within which to try to lead these conversations with patients:

> *…that kind of comfort in knowing in case this conversation gets derailed I would have some kind of safety net in case I wouldn't know what to do with that information. MS8*

In many of the student descriptions of leading GOC conversation, a conversation that was undertaken jointly by student and supervisor occurred, as this participant described:

> *I had like staff [supervisors] there who could take over the conversation when I was hitting a wall or things weren't going well, like I just felt like it was very low-stakes for me to try out things and if it didn't go well then like the staff [supervisors] would intervene and like it would be OK. MS1*

When participants were trying to lead the conversation, supervisors who took the time to set-up the conversation, observe and provide feedback to them enhanced participants' sense of safety and contributed to their learning, as expressed by this participant:

> *I think the thing that stood out for me, for this one, was just the fact that I had someone directly observe me in a goals of care conversation. … So this was the first time that I had someone sit next to me, evaluate how I did in the moment, and then give me feedback afterwards, regularly. MS10*

Not all participants, however, found feedback on their performance beneficial if they felt their role as a medical student limited what they could do during these discussions. In this context, GOC conversations reinforced their limitations, as this participant expressed, "*I feel like the title medical student makes me very hesitant to say anything … I feel less emboldened to say more." MS7*

On some occasions, supervisors did not include participants in GOC conversations and learning opportunities were missed. As one participant described:

> *People who are in senior positions, like staff [supervisors] and residents, are doing a lot of sheltering us from some conversations that they will anticipate as being difficult. MS6*

While participants generally felt supported by their supervisors, and thus willing to try leading a GOC conversation, there was at least one example where the participant felt subjectively unsupported by their supervisors. In this instance, the participant shared they felt powerless to voice concerns and share their negative experiences to receive support:

> *… if I have like a negative goals of care conversation with a patient and their family I have no idea who I would report to other than like mentioning it directly to my team and being like, 'Oh that was really tough' and like talking it out. MS1*

Theme 2: GOC experiences build students' confidence in caring for patients

Through these GOC experiences, students appeared to gain confidence in engaging in patient care. Many participants felt more comfortable participating in GOC conversations as clerkship progressed, after having observed and/or led more conversations with supportive supervisors. At the same time, participants also recognized their limitations, as this participant expressed:

> *I think I still have a lot to learn. I would say I am comfortable. I probably would like to have a few more discussions observed by a staff [supervisors] just because I think I still have a lot to learn in terms of the way I phrase things, the way I recognize and respond to the patient's body language in terms of the overarching structure and intents. MS3*

Being able to observe multiple supervisors allowed students to begin working on their own approach to providing this type of care for patients, as they expressed having little understanding of how to navigate the conversations prior to these experiences:

> *And one thing I found valuable was seeing the same conversation from different preceptors [supervisors]. Everyone has sort of their own approach to these conversations and it's good to have everyone's approach at the beginning and use that to hone down my own approach. So it was good for exposure. MS9*

Similar to this, many students discussed gaining experience in patient-centered care through their participation in GOC conversations:

> *And I enjoy those conversations too, because I like that part about how it can be patient-led, because I find that the rest of the interview can be quite physician-led… this is really allowing them to explore what's important for them. And I find that to be a meaningful experience, and something that I actually enjoy doing. MS6*

Undertaking GOC conversations with patients they knew appeared to improve these experiences for students, as one participant shared:

> *In some situations as medical students, we're kind of thrust into situations that might be uncomfortable and I think goals of care discussions, like it's so helpful to kind of know the patient and for it to have them feel comfortable with you because I think that that sets such a great ground work for impactful conversations. MS4*

The relationship with patients was circular, in that participants felt more comfortable participating in GOC conversations with patients they knew, and by participating in these conversations, they came to know their patients and build relationships.

As a result of their experiences, most participants expressed a willingness to continue initiating GOC conversations as they progressed into residency, recognizing that they still had more to learn about how to engage in these discussions. Many of our participants reflected that participating in a GOC conversation helped them feel closer to the patients they were caring for, as this participant shared:

> *Professional satisfaction and connection with patients isn't always there, whereas what I enjoyed about my palliative care rotation was that, because we had this opportunity to have these really intense and intimate conversations, that the connection was there, even if I wasn't following these patients for a long period of time. I still felt like I knew them, and we still had a closeness with each other, that I haven't personally felt with other patients on other rotations. MS6*

Some participants expressed that being able to participate in GOC conversations with patients reaffirmed why they wanted to be a doctor, as captured in this reflection:

> *I think it almost evoked, just like my motivation, my initial motivations of why I wanted to do medicine. It almost confirmed it. It's like this is why I'm here. … It's just such a rare intimate moment and it's just so, I don't know like it's such an honor to be part of someone's life journey in that way even though they're departing this world. MS2*

Theme 3: GOC conversations evoke students' emotions

The emotionality of GOC conversations was prominent throughout many interviews, as expressed by this participant:

> *I think they're all quite memorable because I think all of these discussions are so emotionally-charged. Especially for me, like once, like if a family just starts crying, like it's so hard for me. MS1*

For most participants, the predominant emotion associated with GOC conversations was sadness. Participants learned to accept this emotion as a difficult part of the conversation, which also enhanced its value. One participant described:

> *So I think yeah, on that end goals of care discussion, that's when I realized as hard as it is it's incredibly rewarding and it's so important to do it before something critical happens. MS2*

While not common, a few participants experienced disappointment or frustration during some conversations. However, even these emotions could contribute to learning:

> *Feeling so ill equipped, feeling I had completely derailed that conversation, like 'What am I going to do with this information now?'... It was definitely a learning experience. Negative in the moment, but then that helped me kind of reflect on, 'Oh hey, I should probably learn about the soft skills and being able to broach this topic', so I did have multiple conversations with staff [supervisors] and the fellow…so I was able to kind of take away a lot of lessons from – like share my experience and then take away a lot of the lessons from the senior staff [supervisors]. MS11*

Supervisors had an important role to play in helping students navigate their own emotions. Observing how a supervisor regulated their emotions helped students with their own emotional regulation, as this participant described:

> *The patient was in emotional distress at certain points during the conversation, but the physician was not. The physician was so grounded and so centred, and I could see how deliberate their gestures and the way they were handling the conversation was, that I felt that it was a very controlled situation. And because that physician had that amount of control over the situation, I myself did not feel very much emotional distress at all, despite the patient being like this. MS6*

Despite students experiencing these emotions, participating in a GOC conversation, either as an observer or by leading the conversation, was viewed as highly meaningful. As one participant described:

> *…I was very privileged to be there when people were having these conversations. And you know, to be kind of a witness to these very intense, intimate, emotional experiences in people's lives. MS6*

Discussion

In our study, medical students' first experiences observing and conducting GOC conversations occurred during their clerkship rotations. Being provided opportunities to not just observe, but to lead conversations with a supportive supervisor and with patients they knew, appeared to positively impact students. Supervisors helped students feel comfortable interacting with patients during these difficult conversations, through briefing and preparing students beforehand, assisting with navigating the discussions, and providing feedback and emotional support following them. Participation in the conversations fostered a sense of personal meaning and satisfaction, facilitated a deeper relationship with patients and encouraged students to take an active role in patient care. Many students developed the confidence to incorporate GOC conversations into their own practices, while maintaining awareness of their personal limitations. Similar to others, we found that students with GOC experiences have already begun to form a mature understanding of these discussions and view them as important in providing patient-centered care.[24]

It is illuminating to contrast our study results with those of Wang et al.,[6] who found more negative impacts for medical students engaging in GOC conversations during clerkship. We used a complimentary methodology to Wang et al.,[6] most notably by using a similar interview guide. Contrasting the results of the two studies highlights the importance of a supportive supervisory relationship as one important factor in contributing to the positive influences of GOC. conversations. Students in Wang et al.'s[6] context were expected to have more autonomy in their GOC conversations and frequently felt unsupported. By comparison, our students were not expected to undertake these conversations independently and the conversations typically occurred in the context of a supportive supervisory relationship with a patient they were caring for.

In the educational alliance framework, the quality of the relationship between learner and educator, particularly as it is perceived by the learner, is influential in affecting learner change.[14] This framework suggests that learners examine a supervisor's commitment to their learning and this perception impacts how they feel moving forward in their learning process with their supervisor.[14] In our study, students described supportive supervisory relationships that included goal-setting prior to undertaking the conversation, direct observation, stepping in to support the conversation, and providing feedback on performance after the conversation was over. It is possible that having their supervisor present during the conversation pushed students into their 'zone of proximal development', where they were able to lead parts of the conversation that they would have been unable to do on their own.[25,26] As this 'zone of proximal development' changes as students grow, close supervision helps at the beginning stages of learning and could be tapered as students become more independent.[26] The presence of the supervisor provided a 'safety net' that encouraged the student to try to lead the conversation while knowing that their supervisor would step in to support them if they were unsure of how to proceed further in their discussion. By encouraging students to extend themselves, and supporting them in this process, students gained confidence in their own abilities and a sense of meaning and professional satisfaction from their clinical care.

The relational thread also extended to relationships with patients and appeared to have a significant impact on students. We found that as students built relationships with patients through GOC conversations, they experienced the conversations as affirming why they wanted to be a doctor.

Similar to previous studies, the emotionality of GOC conversations was present throughout our dataset. However, for the students in our study, emotions seemed to be an understood and accepted part of the conversations. Observing their supervisors also helped students to regulate their emotions. When negative emotions such as frustration were present, these emotions often related to what was happening to the patient (e.g. being frustrated that an observed conversation was not going well for the patient), as opposed to what was happening to the student. Previous research has shown that the feeling of insufficient knowledge in medical students can create feelings of uncertainty.[27] Students in our study highlighted similar uncertainty and expressed that these conversations could reveal their limited

knowledge and made them feel uncertain and inexperienced. This appeared to occur when students did not feel supported by supervisors or were provided with opportunities to interact with patients that they did not know. Having the supervisor present during the conversation helped to mitigate this feeling, as students experienced the supervisor stepping in to provide details when they reached the limits of their knowledge.

Limitations

Our study is not without limitations. This is a single-institution study and thus our participants' experiences may not be generalizable to all centres. However, our study and Wang et al.'s[6] highlight the importance of context on educational experiences, which seems particularly salient in GOC conversations. Second, we interviewed voluntary participants who were motivated to discuss their GOC conversations. While we did seek out participants with negative experiences with these conversations, the relatively few participants with this perspective could indicate that we were unsuccessful in finding these students. Third, participants had differing levels of experiences with GOC conversations. While this provides a more holistic view of the student population, for some participants their data may over-represent memorable experiences of only a few clinical encounters.

Implications for education and research

Our study highlights the centrality of situating student clinical experiences in the context of a supportive supervisory relationship. While some might consider medical students too junior in their training to lead GOC conversations, we found that students gain considerable benefits if they are given such opportunities in the context of a supportive supervisory relationship. Most of the opportunities described by the participants were jointly led conversations where the student would initiate the conversation and the faculty would step in when the student was out of their depth. Thus, rather than shielding students from undertaking GOC conversations, we would encourage ongoing faculty development work to create supportive clinical learning environments. Faculty development strategies such as "Train the Trainer" workshops can enhance supervisor comfort and skill with these conversations[28] and could serve to support faculty in feeling more comfortable as role models supporting learners in these conversations.[29]

Emotions are front and center in much of the research on GOC conversations, whether focussed on learners or faculty. GOC conversations remain an emotionally-challenging and uncomfortable discussion for many physicians.[30] With previous research showing clinicians feel low levels of confidence during these discussions,[31] it is understandable that medical students, with less clinical experience, will express feelings of uncertainty during these emotionally-challenging situations.[27] However, our data suggest that by observing or leading GOC conversation experiences in a supported environment, students learn to acknowledge and manage the emotionality of the conversations. This further reinforces our recommendation of supporting students to participate in these conversations during clerkship.

Conclusion

Having students observe and lead GOC conversations, with a supportive supervisor and a patient that they know, positively affected students who were initially under-prepared and lacked confidence in their skills. This reflects the likely early stages of learning students were in when beginning to take part in GOC conversations. Communication skills are vital for medical practitioners[32], and in our study, GOC discussions early in clinical training fostered confidence and willingness to continue learning and improving these skills. Rather than shielding students from difficult conversations or leaving them without support to engage in these conversations, we as educators can positively impact our students' experiences with GOC conversations and help provide them with the skills to support patients through a difficult time in their lives.

Conflicts of Interest: The authors declare that there is no conflict of interest.
Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.
Authorship: All authors have each signed their own attestation statement that they meet the requirements of authors. The lead author, in addition to their own attestation as an author, has signed an attestation that all authors listed on this paper meet the requirements for authors.
Edited by: Tim Dubé (section editor); Christina St-Onge (senior section editor); Marcel D'Eon (editor-in-chief)

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