Abstract
Critical care leaders frequently must face challenging situations requiring specific leadership and management skills for which they are, not uncommonly, poorly prepared. Such a fictitious scenario was discussed at a Canadian interdisciplinary critical care leadership meeting, whereby increasing intensive care unit (ICU) staff turnover had led to problems with staff recruitment. Participants discussed and proposed solutions to the scenario in a structured format. The results of the discussion are presented. In situations such as this, the ICU leader should first define the core problem, its complexity, its duration and its potential for reversibility. These factors often reside within workload and staff support issues. Some examples of core problems discussed that are frequently associated with poor retention and recruitment are a lack of a positive team culture, a lack of a favorable ICU image, a lack of good working relationships between staff and disciplines, and a lack of specific supportive resources. Several tools or individuals (typically outside the ICU environment) are available to help determine the core problem. Once the core problem is identified, specific solutions can be developed. Such solutions often require originality and flexibility, and must be planned, with specific short-term, medium-term and long-term goals. The ICU leader will need to develop an implementation strategy for these solutions, in which partners who can assist are identified from within the ICU and from outside the ICU. It is important that the leader communicates to all stakeholders frequently as the process moves forward.

Scenario
You have been recruited to be a leader in an existing 16-bed tertiary medical–surgical ICU in an urban center. The hospital’s chief executive officer has pointed out to you that there appears to be a high multidisciplinary staff turnover in the unit in comparison with other areas of the hospital. The result of this turnover is that they have difficulty keeping up with recruitment efforts. Your job description specifically asks that you address this issue and implement possible solutions.

Preamble
The new ICU leader in this scenario has a difficult but not uncommon problem as staffing shortages are commonplace in our current health care system, and ICUs are among the first areas to experience them [3]. As high staff turnover jeopardizes the normal provision of ICU services, the remaining staff are under pressure to maintain critical care services, which may have a negative impact on their retention. Newly hired staff are often inexperienced and require time and attention before full integration into the team. Unfortunately, with limited staff, the resources for this needed nurturing are often lacking.

The discussion in the present article is based on group discussion and primarily comes from the nursing literature, given the paucity of published references on this topic from other disciplines providing ICU care (e.g. medical doctor, respiratory therapy, pharmacy, social work, dietetics, physiotherapy, occupational and speech therapy) [4-8]. The authors would hope – without any published evidence – that the information provided could also apply to these disciplines in times of staff shortage.

ICU = intensive care unit.
Core problem

The ICU leader’s first task is to evaluate the impact of this manpower issue on daily ICU functioning (Table 1) and to determine its cause(s) (Table 2). Although increased staff turnover may have arisen from a reversible or isolated event, from random variation or from work cycles (e.g. maternity leave, leaving acute care nursing), it is more frequently related to job dissatisfaction [6]. Job dissatisfaction can be subdivided into workload issues and staff support issues (Table 2). The workload is the sum of all activities undertaken by the ICU staff, including rounds, committee work, research and teaching (including precepting new staff). The first ingredient for a staff-supportive environment is effective and proactive leadership [9]. Team culture refers to the ‘workplace fiber’ of shared norms, values, beliefs and expectations of the ICU staff. A supportive culture emphasizes teamwork and interdisciplinary collaboration.

An example of modern ICU culture would be one that nurtures staff accountability towards providing timely and safe care to all critically ill patients. The ICU image is the image that is perceived by staff working in other areas of the hospital. An example of a positive ICU image is a unit where ‘best practice’ patient care [10] is provided. ‘Best practice’ refers to “a collection or bundle of routines that, based on the past experiences of other organizations or units, are associated with a specific set of desirable outcomes that makes them a target for transfer … It is widely considered that their adoption demonstrates a commitment to improving patient safety to consumers and stakeholders” [11]. Another example of a positive ICU image is one that offers an experience to its staff that is professionally valuable, and one that has strong collegial relationships both in and out of the workplace.

Good working relationships are tantamount for retention of staff [6]. Effective communication, respect and participative decision-making between nursing, medical and allied professionals are important assets. Collaborative communication is one such model of a working relationship, where problem-solving, conflict management, decision-making, communication and coordination are shared responsibilities to achieve the shared goal of improving unit outcomes [12]. The absence of a team-oriented rounds process can impact negatively on satisfaction for many team members. Staff need to feel that their opinions count, and nonphysician members of the team need to have a sense of autonomy in their practice.

Job dissatisfaction may also arise when specific supportive resources are lacking, such as flexible scheduling strategies,
nursing bedside supervision, defined role and skill requirements, policies and guidelines (e.g. admission and discharge, etc.), and stress management. The staff may feel they are 'stagnating' professionally, and professional development needs may have to be addressed. The presence of a strong infrastructure, including clinical educators, advanced practice nurses and support staff, is thus essential. The ICU environment (patient areas, offices, lounges, etc.) may also be a source of dissatisfaction. Finally, an uncompetitive salary and uncompetitive benefits often contribute to the problem.

In order to collect this information, the ICU leader can choose from a variety of tools: an ‘environmental scan’ [13] to depict and understand the previous and current ICU environment; interviewing staff members (those current and those departed); a satisfaction questionnaire [6]; focus groups, with and by multidisciplinary ICU clinicians; a multidisciplinary retreat; contrasting recruitment and retention characteristics of comparable ICUs; a retrospective review of available data/databases that describe the ICU to date; and a prospective collection of data to answer questions generated by the other tools.

Certain of these tasks are best performed by unbiased external personnel (e.g. interviews may be performed by the human resources department of the hospital), and other tasks are best performed by multidisciplinary ICU staff in order to prevent a bias towards the views of one discipline. The staff satisfaction questionnaire should ensure that comments are objective and constructive rather than only providing staff with an opportunity to complain. The work may also be facilitated by hiring an outside consulting firm, complementing ICU or hospital manpower resources. Such ‘outside help’ may sometimes facilitate certain focus group encounters, depending on the local culture. Ascertaining whether the departed staff members have moved to a specific work area may add insight into the situation. For example, ICU staff may have left to work in another ICU, or a non-ICU clinical unit, or a non-ICU clinical unit, or in another clinical unit or in another nonclinical activity; ‘role redesign’, the flexibility to move “tasks up or down, expanding the breadth/depth of a role” [8]; ‘family-friendly’ policies, such as subsidies or onsite facilities for staff family services (e.g. dental, pharmacy, daycare, etc.) and career ‘breaks’ [8]; a more effective hierarchy of expertise in clinical practice (e.g. using baccalaureate and advanced practice nurses); protocols to allow safe and efficient practice patterns; and, finally, a strong presence of staff with substantial recent clinical experience at the highest levels of management as well as in team leadership in patient care areas, facilitating decision-making at all levels that affect practice.

Another application is providing opportunities for education, career progression and mobility for ICU staff. For example, creating an ICU training program for new graduate registered nurses [15] or creating a first-level critical care course to prepare non-ICU nurses to handle early critical illness in non-ICU units [16] – this may assist subsequent recruitment and may advance practice opportunities [9].

A third example is improving staff services and benefits. Certain changes, such as to the ICU working environment, the lounge and sleeping quarters, may be easily made locally, whereas other changes, such as reviewing salary and compensations, may require support from other hospital groups.

Reviewing the scope of practice for each discipline to ensure that staff feel that their skills are well utilized is another application.

A fifth example is ensuring a strategic plan, developed in conjunction with frontline ICU staff.

A further application is encouraging the hospital to reach ‘magnet designation’ (Magnet Recognition Program™) [14]. This model fosters a culture that values health provider autonomy, education, expertise and quality patient care. In addition, such institutions tend to display better patient and provider outcomes.

A final application example involves modifying the health professional school curriculum, by offering special courses more adapted to critical care and by adding clinical ICU rotations for students.

**Implementation**

Whatever the solution, an implementation strategy is required. Kotter [19] describes “enabling leadership strategies” that the new ICU leader can apply to this task: establishing a sense of urgency, creating a guiding coalition, developing a change in vision and strategy, communicating the change in vision, empowering the coalition and staff for broad-based action, generating short-term wins and consolidating change.
In order to promote change, the urgency of the situation (i.e. increased staff turnover) must be established by documenting its impact on ICU performance, which is best achieved by objective measurement of relevant indicators (Table 1) [17]. The guiding coalition are the ICU leader’s ‘partners for change’ and should include key ICU staff (managerial, frontline and educators), key hospital administrators and, if the staff turnover involves other disciplines, the respective manager(s).

“Vision refers to a picture of the future with some implicit or explicit commentary on why people should strive to change that future” [18]. A vision of the ICU performance in the short term, the medium term and the long term is required and should be easy to communicate, feasible to promote change and appealing to all coalition stakeholders. In our case scenario, the fact that staff shortages lead to reductions in clinical services should convince hospital administration, medical advisory committees and executive committees to provide the resources necessary to implement solutions. Two examples of appealing ICU ‘change visions’ are: (a) a team culture that is supportive of its staff and fosters teamwork, accountability and continuing professional development; and (b) an image of a service that promotes timely, safe and efficient care to the critically ill, via clearly defined roles, responsibilities, triage criteria, evidence-based protocols and guidelines.

The strategy to achieve this vision must address the key causes for the increased staff turnover. Its implementation will depend on the complexity of the core problem, its duration and its potential for reversibility. The strategy should have a timeline, and its success should be measured by the same performance indicators mentioned earlier.

The ICU leader should empower his/her coalition and staff, support them and share in the workload. Support from the ICU staff themselves is indispensable and, as a result, frequent communication, with a willingness to listen to concerns, is essential. Key coalition partners can be encouraged to make links with important groups that could impact on the process (e.g. unions, professional associations, the schools where the individuals are trained). Partnership with academics is also a key element. Recruitment campaigns are likely to be more efficient when these elements are in place. Such strategies require time, effort and skill [19,20], but help to achieve lasting results. Short-term goals (‘quick wins’) should be set along the way, should be communicated to staff and should be celebrated.

**Obstacles**
The ICU leader may have failed to adequately grasp the core problem. The leader should therefore, for this reason, invest significant time into evaluating the core reason for the high staff turnover. In addition, common leadership errors [19] may lead to failure in achieving the desired results: allowing complacency, failing to create a coalition, underestimating the power of vision, permitting obstacles to block the new vision, failing to create short-term wins, declaring victory too soon and neglecting to anchor changes firmly in the ICU culture. As a result, strategies are not implemented well and results are incomplete or take too long to achieve. Even the best change vision and strategy may not be completely achievable because of a failure to convince everyone about its importance or viability. The values and benefits of the change need to be communicated clearly and repeatedly in many contexts, both formal and informal (e.g. discussions, meetings, etc.), and at many levels (medical executive and advisory, administration, nursing, university, etc.). This communication requires conviction, dedication and time.

**Conclusion**
Increased staff turnover is a challenging ICU leadership problem. A systematic approach involving proper identification of the core problem, development of solutions and effective implementation strategies enable the ICU leader to make the desired changes in a timely and lasting way. Essential ingredients for all those involved are conviction, dedication and time.

**Competing interests**
The author(s) declare that they have no competing interests.

**Acknowledgements**
The authors are appreciative of the input of the following individuals who participated in the group discussion around this case: Pierre Cardinal, Brian Eiger, Niall Ferguson, Maude Foss, Robert Fowler, Graham Jones, Stephen Lapinsky, Marilyn Lee, Michelle Lemme, Mary Kay McCarthy and Michael Michenko.

**References**
1. International Collaboration for Excellence in Critical Care Medicine [www.ice-ccm.org] (conferences icon).
2. Hynes P, Hamielec C, Greene AM, Kissoon N, Simone C: Dealing with aggressive behaviour: a leadership challenge. Crit Care Forum 2005, in press.
3. Buethaus PI, Stagner DO, Auerbach Di: Why are shortages of hospital RNs concentrated in specialty care units? Nurs Economics 2000, 18:111-116.
4. Allied Health Professionals and Healthcare Scientists Critical Care Staffing Guidance: A Guideline for AHP and HCS Staffing levels. Intensive Care Society Standards Committee National AHP and HCS Critical Care Advisory Group, Critical Care Programme Modernisation Agency [http://www.ics.ac.uk/downloads/AHPHCSCriticalCareStaffing.pdf].
5. UK Department of Health: Workforce Planning for Critical Care: A Rapid Review of the Literature (1990–2003) [http://www.dh.gov.uk/assetRoot/04/05/07/87/04050787.pdf].
6. Royal College of Nursing: Guidance for nurse staffing in critical care. J Adv Nurs 2003, 42:548 [www.rcn.org.uk].
7. Stechmiller JK: The nursing shortage in acute and critical care settings. AACN Clin Issues 2002, 13:577-584.
8. UK Department of Health: The Recruitment and Retention of Staff in Critical Care [http://www.dh.gov.uk/assetRoot/04/08/35/68/04083568.pdf].
9. Buonocore D: Leadership in action – creating a change in practice. AACN Clin Issues 2004, 15:170-181.
10. Brill RJ, Spevetz A, Branson RD, Campbell GM, Cohen H, Dasta JF, Harvey MA, Kelley MA, Kelly KM, Rudis MI, et al.: American College of Critical Care Medicine Task Force on Models of Critical Care Delivery. The American College of Critical Care Medicine guidelines for the definition of an intensivist and the...
practice of critical care medicine. Critical care delivery in the intensive care unit: defining clinical roles and the best practice model. Crit Care Med 2001, 29:2007-2019.

11. Berta WB, Baker R: Factors that impact the transfer and retention of best practices for reducing error in hospitals. Health Care Manage Rev 2004, 29:90-97.

12. Boyle DK, Kochinda C: Enhancing collaborative communication of nurse and physician leadership in two intensive care units. J Nursing Admin 2004, 34:60-70.

13. Mafica L, Ballon LG, Culhane B, McCorkle M, Miller Murphy C, Worrall L: Oncology Nursing Society 2002 environmental scan: a basis for strategic planning. Oncol Nurs Forum 2002, 29:E99-E109.

14. Robinson CA: Magnet nursing services recognition: transforming the critical care environment. AACN Clin Issues 2001, 12:411-423.

15. Seago JA, Barr SJ: New graduates in critical care. The success of one hospital. J Nurses Staff Dev 2003, 19:297-304.

16. Woodrow P: A course in critical care for ward staff. Nurs Times 2002, 98:32-33.

17. Pronovost PJ, Berenholtz SM: A practical guide to measuring performance in the intensive care unit. VHA Res Ser 2002, 2:1-54. [https://www.vha.com/research/public/icu.pdf]

18. Kotter JP: Leading Change. Watertown MA: Harvard Business Press; 1996.

19. Byram DA: Leadership: a skill, not a role. AACN Clin Issues: Adv Practice Acute Crit Care 2000, 11:463-469.

20. McKinley MG: Mentoring matters. Creating, connecting, empowering. AACN Clin Issues 2004, 15:205-214.