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VOLUME 14, NO. 1, WINTER 2009

VOLUME 14, N° 1, HIVER 2009

IN THIS ISSUE

DANS CE NUMÉRO

The Occasional Quinsy

Secure Rooms and Violent Patients

Where Did the Doctors Go? IMGs



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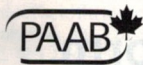
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VOL. 14, NO. 1, WINTER / HIVER 2009

EDITORIALS / ÉDITORIAUX

- 4 Do medical schools measure rural? — *Peter Hutten-Czapski, MD*
- 5 Les facultés de médecine mesurent-elles un «indice de ruralité»? — *Peter Hutten-Czapski, MD*
- 7 President's message. Expanding our scope of activities — *Karl Stobbe, MD, CCFP(EM), FCFP*
- 8 Message du président. Élargir notre champ d'activités — *Karl Stobbe, MD, CCFP(EM), FCFP*

ORIGINAL ARTICLES / ARTICLES ORIGINAUX

- 10 Use of palliative care services in a semirural program in British Columbia — *Diane E. Allan, MA; Shelly Waskiewich, BA; Kelli I. Stajdubar, RN, PhD; Darcee Bidgood, RN, MN*
- 16 Use of a "secure room" and a security guard in the management of the violent, aggressive or suicidal patient in a rural hospital: a 3-year audit — *Gordon Brock, MD, FCFP; Vydas Gurekas, MD, CCFP; Anne-Fredrique Gelinas; Karina Rollin*
- 21 Where did the doctors go? A study of retention and migration of provisionally licensed international medical graduates practising in Newfoundland and Labrador between 1995 and 2006 — *Rick Audas, BBA, MBA, MA, PhD; Ann Ryan, BSc, MSc; David Vardy, BA, BComm, MA*

THE PRACTITIONER / LE PRATICIEN

- 25 Quinsy (peritonsillar abscess) — *Raymond Rahn, MD, FRCS(C); Peter Hutten-Czapski, MD, FCFP*

OUT BEHIND THE BARN / DANS LE FEU DE L'ACTION

- 27 An Excel balancing act — *Barrie McCombs, MD, FCFP*

LETTERS / CORRESPONDANCE

- 29 Treatment of acute cardiogenic pulmonary edema — *Karl Stobbe, MD; Response, John Bosomworth, MD*



New Snow

Watercolour, 16" x 12"

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The artist says: "I was trying to give the impression of one of those mornings in the woods when there has not been anything to disturb the fresh snow that fell over night, and before the wind and sun has had a chance to melt or knock off any of the snow on the branches."

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- 6 RENSEIGNEMENTS GÉNÉRAUX
- 9 DIRECTIVES AUX AUTEURS
- 15 INSTRUCTIONS FOR AUTHORS
- 31 SERVICE INFORMATION
- 34 CAREER / CLASSIFIED ADVERTISING

ANNONCES SUR LES CARRIÈRES ET ANNONCES CLASSÉES

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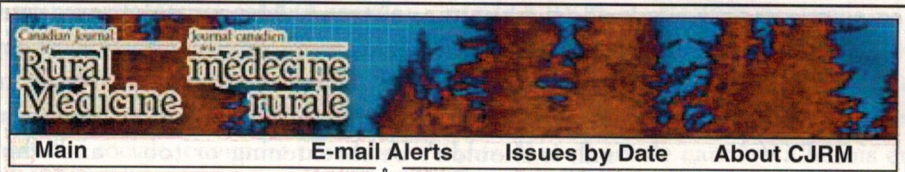
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Do medical schools measure rural?

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Once upon a time there were a few new rad medical schools that were designed to produce general practitioners for Canada's needs. Well it didn't take long before the current 16 schools looked the same. Now, in the 21st century, we have 1 new school and many new regional programs complete with all the bling. Is it going to be the same old same old, or has something changed?

It all depends on the language we use.

We need to talk about a different type of success or there will not be meaningful change. I don't mean task forces and papers. It's all very fine to say that we support social accountability in medical schools.¹ Unless we start measuring success in terms of social accountability, how can we say we are achieving it?

Do we measure Aboriginal? The health challenges in Aboriginal communities are well known. Not all indigenous physicians treat Aboriginal patients, and even so these physicians make up only 0.25% of the workforce.² Canada's population is 2.5% Aboriginal; it shouldn't be threatening or too difficult to change the class makeup by that small an amount. Furthermore, ensuring proportional representation of Aboriginal students in medical schools is recognized as a dimension of accountability by the Association of Faculties of Medicine of Canada.³

If we measured the admissions of Aboriginal students into medical schools we should be able to get national numbers. We aren't there yet, but last year in Ontario, admissions of Aboriginal students averaged 8% at the 56-seat Northern Ontario School of Medicine⁴ and were climbing to demographic levels at the other Ontario schools.

Let's try something more difficult. Does your medical school measure rural? In Canada in 2005, the population was 21% rural and was served by 16% of family physicians and 2% of specialists.⁵ Rural is one of the most important determinants of both family practice career choice and rural medicine, and yet in one large study, only 6.2% of medical school students were rural by the same definition.⁶

Let's really shake things up and stop measuring by medical college admission test (MCAT) scores or grade point averages (GPAs). The class MCAT score average, or GPA, is strictly meaningless, and yet it is commonly reported as a measure of success and prestige. To be sure, for an individual a high MCAT score will predict a pass on the Licentiate of the Medical Council of Canada (LMCC) — to a point. After a certain threshold of MCAT scores or GPAs the pass rate does not increase. Why do we use them as if they were linear scalars? We should measure instead the proportion of students who need remediation and who pass the LMCC.

If you follow me this far let's jump in the deep end. At the medical school, do we measure poverty or do we measure wealth? We don't do either, of course, but doesn't our blindness mask a bias? I will leave that for you to investigate. Canada should do better. We can do better. We have to do better, and in 17-part harmony.

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Les facultés de médecine mesurent-elles un «indice de ruralité»?

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Il fut un temps où quelques nouvelles facultés de médecine avaient pour mission de former des omnipraticiens afin de répondre aux besoins du Canada. Il n'a guère fallu de temps, toutefois, pour que les 16 facultés actuelles se ressemblent toutes. Maintenant, au XXI^e siècle, nous avons une toute nouvelle école et beaucoup de nouveaux programmes régionaux complets qui offrent tout le tralala. Est-ce que ce sera toujours la même vieille rengaine, ou si quelque chose a vraiment changé?

Tout dépend de la terminologie que nous utilisons.

Nous devons parler d'un type différent de réussite, sinon il n'y aura pas de changement réel. Je ne parle pas de groupes de travail ni d'études. Dire que nous appuyons la responsabilité sociale dans les facultés de médecine, c'est bien beau¹, mais si nous n'entreprenons pas de mesurer la réussite en fonction de la responsabilité sociale, comment pouvons-nous affirmer que nous réussissons?

Mesurons-nous un «indice autochtones»? Les défis de santé des communautés autochtones sont bien connus. Les médecins autochtones ne traitent pas tous des patients autochtones et même si c'était le cas, ces médecins représentent 0,25 % seulement de l'effectif médical², alors que la population du Canada compte 2,5 % d'Autochtones. Il ne devrait pas être menaçant ni trop difficile de modifier la composition des classes d'un pourcentage aussi faible. L'Association des facultés de médecine du Canada reconnaît de plus que la représentation proportionnelle des étudiants autochtones dans les facultés de

médecine constitue une dimension de la responsabilité³.

Si nous mesurons l'admission d'étudiants autochtones dans les facultés de médecine, nous devrions pouvoir produire des statistiques nationales. Nous n'en sommes pas encore là mais l'an dernier, en Ontario, les étudiants autochtones représentaient en moyenne 8 % de l'inscription à l'École de médecine du Nord de l'Ontario⁴, qui compte 56 places; dans les autres facultés de médecine de l'Ontario, la représentation des Autochtones s'approche graduellement de la proportion démographique.

Essayons quelque chose de plus difficile. Votre faculté de médecine mesure-t-elle un indice de ruralité? En 2005, la population du Canada était rurale à 21 % et elle était desservie par 16 % des médecins de famille et 2 % des spécialistes du pays⁵. La ruralité est un des déterminants les plus importants d'un choix de carrière à la fois en médecine générale et en médecine rurale, mais selon une étude d'envergure, 6,2 % seulement des étudiants en faculté de médecine venaient des régions rurales, selon la même définition de la ruralité⁶.

Changeons vraiment les choses et cessons de mesurer en fonction des résultats obtenus au Medical College Admission Test (MCAT) ou des moyennes pondérées cumulatives (MPC). La note moyenne obtenue par la classe au MCAT, ou MPC, ne veut strictement rien dire, mais on en fait couramment état comme paramètre de la réussite et du prestige. On peut

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affirmer en général qu'une personne qui a obtenu un résultat élevé au MCAT réussira fort probablement l'examen de licence du Conseil médical du Canada (LCMC), mais ce n'est pas toujours le cas. Au-delà d'un certain seuil de résultat au MCAT ou de MPC, le taux de réussite n'augmente pas. Pourquoi alors utiliser ces mesures comme s'il s'agissait de grandeurs scalaires linéaires? Nous devrions mesurer plutôt le pourcentage des étudiants qui ont besoin de rattrapage et qui réussissent l'examen LCMC.

Si vous m'avez suivi jusqu'ici, sautons alors en eau profonde. À la faculté de médecine, mesurons-nous la pauvreté ou la richesse? Ni l'une ni l'autre, bien entendu, mais notre cécité ne cache-t-elle pas un préjugé? Je vous laisse chercher la réponse. Le Canada devrait faire mieux. Nous pouvons faire

mieux. Nous devons faire mieux, et dans une harmonie à 17 partitions.

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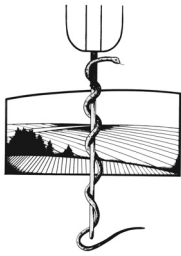
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President's message. Expanding our scope of activities

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We are collaborating with national and international medical organizations. The Australian College of Rural and Remote Medicine, the Society of Obstetricians and Gynaecologists of Canada and the College of Family Physicians of Canada (CFPC) all share some initiatives with us. The Canadian Medical Association is partnering with us to optimize our office function.

In April 2009 we will be awarding Canada's first Fellowship in Rural and Remote Medicine to deserving recipients.

Our new section of specialists has been active under the leadership of Dr. Kweku Dankwa, a pathologist from St. Anthony, NL. The section's goals are to support rural specialists in practice, recruitment and retention, and to explain the special needs of rural specialists. If you are a specialist serving rural Canada and would like to know more, Dr. Dankwa would like to hear from you.

We have international development projects in Iraq, Pakistan and the Philippines. The chair of our international committee is Dr. Dale Dewar, a family doctor in Wynyard, Sask. If you want to get involved, please contact Dale.

We have a very active student committee with a representative from every medical school in the country. Each member of this inspiring and energetic group is a leader of a rural student club in their school. This committee meets regularly by teleconference and has been very successful in generating student interest in rural medicine.

Our resident committee consists primarily of family medicine residents in rural programs. Rural residents value the opportunity to learn from and socialize with rural physicians across the country. Both students and residents provide us with valuable advice about how we can attract more learners to rural medicine.

Our Collaborative Committee on Rural Education works with the CFPC to ensure that we have input into training standards for rural programs in Canada.

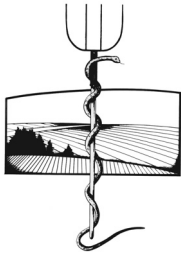
Our committees on anesthesia, emergency medicine, maternity and newborn care, surgery and rural research have made important contributions in writing policy papers, setting standards and collaborating with organizations such as CFPC, the Canadian Anesthesiologists' Society, the Canadian Association of Emergency Physicians and others.

Our listserv, RuralMed, is an email gathering place where rural doctors discuss medicine, ethics, working conditions and life in general.

Our peer-reviewed *Canadian Journal of Rural Medicine*, which you are reading, is sent to all rural physicians in Canada, supported by our members' dues. We feel this is an important service to Canada's rural physicians.

Formed at a time of low morale and lack of recognition for rural doctors, the SRPC has become the respected voice of rural medicine practitioners in Canada. I am proud to be a member. If you don't feel the same way, either you're not a member, or you're not a rural physician. You can change both!

To contact me or any of the individuals named above, to join the SRPC or our committees, to register for courses or to join our RuralMed listserv, visit our website at www.srpc.ca.



Message du président. Élargir notre champ d'activités

*Karl Stobbe, MD,
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La Société de la médecine rurale du Canada a étendu progressivement l'envergure de ses activités pour mieux servir les intérêts de ses membres et répondre aux besoins sociaux.

Nous collaborons, aux échelons national et international, à des projets avec des organismes médicaux dont l'Australian College of Rural and Remote Medicine, la Société des obstétriciens et gynécologues du Canada et le Collège des médecins de famille du Canada (CMFC). L'Association médicale canadienne a formé un partenariat avec nous afin d'optimiser notre fonction administrative.

Par ailleurs, en avril 2009, nous décernerons pour la première fois au Canada le titre de fellow en médecine rurale et éloignée aux lauréats méritoires.

Notre nouvelle Section des spécialistes a été fort affairée sous la direction du Dr Kweku Dankwa, un pathologiste de St. Anthony (T.-N.-L.). L'objectif général de cette Section est de soutenir les spécialistes ruraux en ce qui concerne la pratique, le recrutement et la rétention, et de faire connaître les besoins qui leur sont propres. Si vous êtes un spécialiste travaillant en milieu rural au Canada et aimeriez en savoir plus, communiquez avec le Dr Dankwa.

Nous avons des projets de développement international en Irak, au Pakistan et dans les Philippines. Le Dr Dale Dewar, un médecin de famille de Wynyard, en Saskatchewan, est le président de notre comité international. Si vous voulez vous impliquer dans ces projets, veuillez communiquer avec lui.

Le Comité des étudiants est très actif. Il compte un représentant de chaque faculté de médecine du pays. Chaque

membre de ce groupe mobilisateur et énergique joue un rôle de chef de file au sein d'un club d'étudiants de régions rurales dans leurs universités. Ce comité tient régulièrement des téléconférences et a suscité un vif intérêt pour la médecine rurale auprès des étudiants.

Notre Comité des résidents se compose essentiellement des résidents en médecine familiale inscrits à des programmes ruraux. Les résidents en médecine rurale apprécient l'occasion de perfectionner leurs connaissances et de s'entretenir avec des médecins ruraux dans tout le pays. Les étudiants et les résidents nous donnent des conseils judicieux sur la façon dont nous pourrions attirer plus d'étudiants vers la médecine rurale.

Notre Comité de collaboration sur l'éducation rurale travaille en collaboration avec le CMFC pour voir à ce qu'on ait notre mot à dire dans l'établissement des normes de formation pour les programmes ruraux au Canada.

Nos comités sur l'anesthésie, la médecine d'urgence, la maternité et les soins aux nouveau-nés, la chirurgie et la recherche en milieu rural ont fait d'importantes contributions. Ils ont participé à la rédaction de documents d'orientation et à l'établissement de normes et ont travaillé en collaboration avec des organismes tels que le CMFC, la Société canadienne des anesthésiologistes, l'Association canadienne des médecins d'urgence et autres.

RuralMed, notre serveur de liste de diffusion, est un lieu virtuel où les médecins ruraux discutent de médecine, de déontologie, de conditions de travail et de la vie en général.

Notre *Journal canadien de la médecine*

rurale est la publication évaluée par les pairs que vous lisez. Grâce aux cotisations de nos membres, nous l'envoyons à tous les médecins ruraux au Canada. C'est à notre avis un important service à rendre aux médecins ruraux du Canada.

Créée à une époque où le moral était bas et où l'on dénotait un manque de reconnaissance envers les médecins ruraux, la SMRC est devenue la voix respectée des médecins ruraux au Canada. Je suis

fier d'en faire partie. Si vous ne partagez pas ce sentiment, soit que vous ne soyez pas membre, soit que vous ne soyez pas médecin rural. Vous seul pouvez changer les deux!

Pour communiquer avec moi ou l'une des personnes susmentionnées, pour adhérer à la SMRC ou joindre un de nos comités, pour vous inscrire à un de nos cours ou pour vous inscrire à RuralMed, visitez notre site web à www.srpc.ca.

DIRECTIVES AUX AUTEURS

Le *Journal canadien de la médecine rurale (JCMR)* est un trimestriel critiqué par les pairs disponible sur papier et sur Internet. Le *JCMR* est le premier journal de médecine rurale au monde à être inscrit dans

Index Medicus et dans les bases de données MEDLINE et PubMed.

Le *JCMR* vise à promouvoir la recherche sur les questions de santé rurale, à promouvoir la santé des communautés rurales et éloignées, à appuyer et informer les praticiens en milieu rural, à offrir une tribune de débat et de discussion sur la médecine rurale, ainsi qu'à fournir de l'information clinique pratique aux praticiens en milieu rural et à agir sur la politique de santé rurale en publiant des articles qui éclairent les décideurs.

On étudiera la possibilité de publier des documents dans les catégories suivantes.

Articles originaux : études de recherche, rapports de cas et analyses critiques d'écrits en médecine rurale (3500 mots ou moins)

Commentaires : éditoriaux, analyses régionales et articles d'opinion (1500 mots ou moins)

Articles cliniques : articles pratiques pertinents pour la pratique en milieu rural. On encourage la présentation d'illustrations et de photos (2000 mots ou moins)

Autres : documents d'intérêt général pour les médecins ruraux (p. ex., voyages, réflexions sur la vie rurale, dissertations). (1500 mots ou moins)

Couverture : œuvre d'art à thème rural

Présentation des manuscrits

Envoyer deux copies papier du manuscrit au Rédacteur en chef, *Journal canadien de la médecine rurale*, CP 4, Station R, Toronto ON M4G 3Z3, ainsi qu'une version électronique, de préférence par courriel à cjrm@lino.com, ou sur CD. Veuillez préparer la version électronique dans le format Word 2003 ou antérieur, soit le format doc, et non le format docx). Il faut joindre les illustrations et les photos numériques dans des fichiers distincts (voir ci-dessous).

Les copies papier du manuscrit doivent être dactylographiées à double interligne et doivent comporter une page titre distincte portant le nom et le titre des auteurs et un compte de mots, un résumé d'au plus 200 mots (pour la catégorie articles originaux), suivi du texte, des références complètes et des tableaux (chaque tableau sur une page distincte). Pour les références : inscrire les appels de notes dans le texte entre crochets et énumérer les références à la fin du texte dans l'ordre de leur parution dans le texte. Il ne faut pas utiliser les fonctions Endnotes (notes en fin de texte) ou Footnotes (notes en pied de page) des logiciels. Pour la préparation du manuscrit, suivre le guide stylistique approuvé, soit les «Exigences uniformes pour les manuscrits présentés aux revues biomédicales» (voir www.cmaj.ca/misc/ifora.shtml).

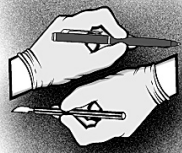
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Illustrations et figures électroniques

Les illustrations doivent être présentées en format JPG, EPS, TIFF ou GIF tels que produits par la caméra à une résolution d'au moins 300 ppp (ce que produit typiquement une caméra de 2 méga pixels ou mieux pour une image de 10 x 15 cm). Ne corrigez pas la couleur ou le contraste : notre imprimeur s'en chargera. N'insérez pas de texte ou de légende avec l'image. Si vous devez rogner l'image, sauvegardez-la à la meilleure résolution possible (la plus faible compression). Ne scannez pas les images et ne réduisez pas la résolution des photos. Si vous le faites, vous devez le préciser dans la lettre d'accompagnement et envoyer par la suite une version haute résolution sur CD ou en format prêt à imprimer.

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ORIGINAL ARTICLE ARTICLE ORIGINAL

Use of palliative care services in a semirural program in British Columbia

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*This article has been peer
reviewed.*

Introduction: Although specialized palliative care services in rural areas are scarce, many people who are dying, and their families, want to remain in their homes or within their own community. As such, semirural communities across Canada have developed a variety of initiatives to address this need. The purpose of our paper is to describe a semirural palliative care program located in British Columbia.

Methods: We used univariate and bivariate analyses to examine all patients for whom a palliative care bed was requested in the Saanich Peninsula Hospital Palliative Care Unit (PCU) between Jan. 1, 2005, and Dec. 31, 2006.

Results: Data suggest that there is provision of care for local residents in this semirural community. Throughout 2005 and 2006, SPH received a total of 411 requests for a palliative care bed with about three-quarters of admissions coming from other units within the hospital and from local residents.

Conclusion: Use of services data collected from hospital charts can provide valuable information to help inform program and policy decision-makers. Yet such information is limited in relation to answering the question of whether the end-of-life needs of local residents are being met. Future studies should consider input from families and patients to enhance our understanding of the role of a PCU in a semirural environment.

Introduction : Bien qu'il existe peu de services de soins palliatifs spécialisés dans les régions rurales, bon nombre de personnes en fin de vie, ainsi que leurs familles, souhaitent rester dans leur domicile ou dans leur propre communauté. C'est pourquoi des communautés semi-rurales dans tout le Canada ont mis en œuvre divers projets pour répondre à ce besoin. Dans cet article, nous décrivons un programme de soins palliatifs semi-rural en Colombie-Britannique.

Méthodes : Nous avons effectué des analyses unidimensionnelles et bidimensionnelles de toutes les demandes de lits en soins palliatifs à l'unité des soins palliatifs (USP) de l'hôpital de la péninsule de Saanich entre le 1er janvier 2005 et le 31 décembre 2006.

Résultats : Les données indiquent que l'on a prévu des soins pour les résidents locaux de cette communauté semi-rurale. En 2005 et 2006, l'hôpital de la péninsule de Saanich a reçu 411 demandes de lits en soins palliatifs et environ les trois quarts des patients admis provenaient d'autres unités de l'hôpital ou étaient des résidents locaux.

Conclusion : Les données sur les services extraites des dossiers de l'hôpital peuvent fournir des renseignements précieux pour informer les décideurs en matière de programmes et de politiques. Pourtant, de tels renseignements ne suffisent pas pour répondre à la question de savoir si les besoins de fin de vie des résidents locaux sont satisfaits. Les recherches futures devraient tenir compte des commentaires des familles et des patients pour mieux comprendre le rôle d'une USP dans un milieu semi-rural.

INTRODUCTION

It is well documented that Canada's large rural areas, characterized by sparse populations, fewer services and greater distances, present a major chal-

lenge to residents in need of health care services.¹⁻⁵ Those requiring end-of-life care are no exception.⁶ Canada's first palliative care programs were developed in the 1970s and have evolved into programs with a primary aim of

relieving suffering and improving quality of life for those living with a life-threatening illness or dying from the illness.⁷ Yet palliative care programs in rural and remote areas remain limited.⁸ Furthermore, information on the rate of use of these programs is largely unknown. The purpose of our paper is to describe the use of palliative care services in a semi-rural palliative care program located in British Columbia.

BACKGROUND

A 2000 Canadian Medical Association (CMA) study defined rural as living in a community with 10 000 or fewer residents.⁹ This means that about 30% of Canadians live in rural areas of Canada, yet these areas cover 95% of Canada.¹⁰ According to the CMA study, 90% of rural residents had access to ambulatory, basic laboratory and radiography services, yet access to more specialized services was limited.⁹ Indeed, less than two-thirds had access to ultrasonography, fluoroscopy, blood banks and chemotherapy, and only 9% had access to computed tomography scans and nuclear medicine. Thus it is not surprising that access to services drives use of services. For example, studies conducted in Canada typically report that older rural adults use fewer specialist services than older urban adults.^{1,2,11,12} Moreover, older rural adults tend to have longer hospital stays than older urban adults because of the lack of hospitals close to their homes.^{11,15} Finally, older rural adults tend to receive higher rates of home care services than their urban counterparts.^{5,11}

Given the above, it is not surprising that the provision of palliative care services in rural areas is also limited. Overall, individuals in rural communities describe local health care services as dependable, accessible, of good quality and available when required.^{14,15} Yet, as is often the case at the end of life, issues arise when specialized tertiary care is required.^{5,14} Travelling long distances to receive this specialized care can be difficult on both the sick patient and the family members. Cost of travel and accommodations, receipt of care by strangers, and being separated from family and friends for extended periods of time are just some of the issues that must be considered when health care services are not available locally.^{14,15}

In some situations, care may be available locally, but is unsuitable in terms of palliative care.⁸ For example, immediate access to medications for pain management may be limited, especially for individuals

who are being cared for at home. Furthermore, the specialized training of health care professionals in palliative care may be inadequate in rural areas.¹⁶ In other words, these professionals are available, but they may not have the training specific to palliative care required for the provision of quality end-of-life care. Although specialized palliative care services in rural areas are scarce, many people who are dying, as well as their families, want to remain in their homes or within their own community.^{5,16} Therefore, the provision of palliative care within these communities is an important component of the health care system.^{8,16} For this reason, communities across Canada have developed a variety of initiatives to address the palliative care needs of semirural residents. The Saanich Peninsula is one such community and is the basis for our paper.

METHODS

The Saanich Peninsula is located about 30 km from Victoria, BC. It is characterized by 3 small communities that consist of farms and pockets of residential areas with a total population of 37 883.¹⁷ This agricultural/residential mix, coupled with a proximity to Victoria, makes the Saanich Peninsula semirural in nature.

As is the case in many rural communities, farms on the Saanich Peninsula have remained in the same families for years. This continuity in residents over generations has created a strong sense of community, including strong ties to the local hospital, Saanich Peninsula Hospital (SPH). Since the 1970s, residents have had access to a community hospital that provides acute (48 beds), residential (144 beds), emergency and outpatient services. In 2002, a 10-bed palliative care unit (PCU) was opened in the acute section to meet the demands of an aging population and residents' desire to receive end-of-life care as close to home as possible.

Also located on the Saanich Peninsula are 4 Aboriginal communities. An important aspect of providing end-of-life care to Aboriginal patients is to include culturally appropriate modifications to the care plan.¹⁸ To meet the unique needs of the Aboriginal residents on the Saanich Peninsula, 2 special palliative care rooms were designed whereby cultural practice could take place if desired. For example, these rooms have direct outside access, allowing the body to be transferred directly from the bedroom to outside after death, eliminating the need for it to move through the halls.

In terms of human resources in the PCU, the

family physician retains overall responsibility for the patient, and a part-time palliative care physician provides expert clinical consultation, education and support for program planning and development 2 mornings a week, as well as telephone support for crisis management. When patients require a family physician, such as those admitted to the PCU from outside communities, 1 of a core group of 12 physicians takes over the care of these patients. These 12 physicians have taken an interest in palliative care and have received additional educational and other support for their role. As well, any family physician who has hospital privileges can admit patients to the PCU; therefore many of the physicians in the community have furthered their palliative skills. Nursing care in the unit is provided by registered and licensed practical nurses with the support of the clinical team. Support positions shared with acute care units include a clinical coordinator, a nurse educator, a clinical nurse specialist, a nurse manager, a social worker and allied health professionals (e.g., physiotherapists, nutritionists, pharmacists). Volunteers are also an integral part of the SPH PCU. A more detailed description of the program has been previously described.¹⁹

To examine trends in program use and provide information for service planning and further program development, a database containing service use information was created for the program. We describe the use of our program for the 2-year period that data are available. The study population includes all those who requested a palliative care bed in the PCU between Jan. 1, 2005, and Dec. 31, 2006.

Instruments

Before the opening of the SPH PCU, 3 data collection instruments were jointly developed by SPH staff and local university researchers. The process of developing the instruments and database was extensive. First, existing Canadian program databases were reviewed to determine the variables most appropriate to capture patient and program characteristics. These variables were then cross-referenced to ensure congruency with national and provincial standards in palliative and end-of-life care. Next, data collection tools and a data dictionary were developed, followed by pilot testing and refinements. Finally, appropriate computer software was selected and a database developed. The instruments were completed by staff and analyzed by researchers at the local university.

Data analysis

We used frequencies to describe the program. Data are presented for 2005 and 2006 as well as the 2 years combined. We used χ^2 and t tests to assess differences between the 2 years for admission and discharge characteristics, as well as use of services. All analyses were done using SPSS 15.0 (SPSS, Inc.).

Variables

Using the instruments, information was collected on patient demographics, admission and discharge characteristics, and receipt/nonreceipt of services provided. Length of stay (LOS) variables were calculated based on the various date variables included in the instruments (e.g., date of admission, date designated palliative, date of bed request). In cases where the 2 dates were the same, an LOS of 0 days was assigned. One patient characteristic measured at both time of bed request and time of admission is physical performance. This is done using the Palliative Performance Scale (PPS), which measures physical performance in increments of 10%, where a PPS of 100 corresponds to full ambulation and health, and a PPS of 0 corresponds to death.²⁰

RESULTS

Table 1 presents the characteristics of patients admitted to the SPH PCU. Throughout 2005 and 2006, SPH received a total of 411 requests for a palliative care bed. The average PPS score at the time of both bed request and actual admission was 40. A person with a PPS score of 40 is characterized as one who is mainly in bed, cannot do any work, has extensive evidence of disease, requires assistance with physical care, has normal or reduced intake, and may be fully conscious, drowsy or confused. When admitted to a PCU with a PPS of 40, staff can estimate that this person has 10–30 days to live.

Admission and discharge characteristics are presented in Table 2. Of the 411 bed requests, 335 patients were admitted, which represents about 1 new admission every 2 days. The main reasons for nonadmission included the following: a bed was available but the patient or family changed their mind (33.3%), a bed was unavailable and the patient died before admission (26.1%), and a bed was unavailable and the patient was admitted elsewhere (18.8%). There were only 6 patients in both 2005 and 2006 ($n = 12$) for whom admission to the PCU was not appropriate. Primary reasons for

inappropriateness included the following: the prognosis for survival was greater than 3 months, the complexity of the case was too great for unit resources and the prognosis was imminent death (within hours).

Those admitted from acute or emergency units at 1 of the 3 hospitals in the Greater Victoria Area spent a median of 2 days in their respective unit before being designated as palliative patients and subsequently transferred to SPH PCU. For most cases, the request for a palliative bed at SPH, once a palliative designation was made, occurred on the same day. Once admitted to the PCU, the overall median LOS for people admitted from acute and emergency units, as well as from their home, hospice or a long-term care facility, was 7 days.

The SPH PCU provides social work, liaison, physiotherapy, palliative care physician and clinical nurse specialist services. Although data for this section are incomplete, the data available suggest that social work services were the most frequently used, followed by liaison and physiotherapy services.

When data were examined by year, there were no significant differences for admission and discharge characteristics with the exception of the reason for admission to the PCU ($\chi^2 = 9.83$, $df = 3$, $p = 0.02$). In 2005, more admissions resulted from requests by patients and families or because there was no caregiver available, and in 2006 the most frequently reported

reason for admission was symptom management. The use of liaison, physiotherapy and clinical nurse specialist services declined from 2005 to 2006.

DISCUSSION

The purpose of our paper was to describe the use of a PCU in a semirural hospital. From a service use perspective, our data suggest that there is provision of care for local residents. Indeed, about three-quarters of admissions to the SPH PCU come from other units within the SPH and from local residents. This is important information as it supports the overall program goals. Yet, from the perspective of

Table 1. Patient demographics

Characteristic	% of patients*		
	Year 1, n = 171	Year 2, n = 164	Total, n = 335
Age, yr			
Median	80.0	81.5	81.0
Range	29–100	30–99	29–100
Marital status			
Married/common law	49.4	65.1	57.1
Widowed	38.0	25.7	31.9
Divorced/separated	7.0	7.2	7.1
Never married/single	5.7	2.0	3.9
Sex			
Female	57.3	50.6	54.0
Male	42.7	49.4	46.0
Aboriginal origin	1.2	1.8	1.5
Diagnosis			
Cancer	60.1	70.3	70.3
Noncancer	39.9	29.7	29.7
PPS score			
At time of bed request	40	40	40
At time of admission	40	40	40

PPS = palliative performance scale.
*Unless otherwise indicated.

Table 2. Admission and discharge characteristics

Characteristic	% of patients*		
	Year 1, n = 171	Year 2, n = 164	Total, n = 335
No. of bed requests	214	196	411
Source of referral			
Family physician	33.3	34.1	33.7
Unit coordinators	25.1	20.1	22.7
Home nursing care	12.3	17.1	14.6
ED physicians	6.4	12.8	10.2
Other	22.9	15.9	18.8
Appropriate to unit	96.7	96.9	96.6
Appropriate but not admitted	21.7	18.8	16.8
Admitted from			
Hospital 1 (SPH)	50.9	57.9	54.3
Home (local)	22.2	19.5	20.9
Home (nonlocal)	5.8	7.9	6.9
Hospital 2 (VGH)	7.6	5.5	6.6
Hospital 3 (RJH)	5.3	5.0	5.1
Hospice	3.5	1.2	2.4
Long-term care	1.2	1.2	1.2
Other	3.5	1.8	2.6
Reason for admission			
Symptom management	26.3	39.6	32.8
Imminent death	24.6	27.4	26.0
Patient/family request	28.1	19.5	23.9
No caregiver available	18.1	11.6	14.9
Other	2.9	1.9	2.4
Reason for discharge/transfer			
Death	80.1	79.5	79.8
Stabilized to go home	13.5	13.7	13.6
Other	6.4	6.8	6.6
Discharged/transferred to			
Death	80.1	79.5	79.8
Home	14.0	14.3	14.2
Hospital	1.8	3.1	2.4
Hospice	0.6	0.6	0.6
Other	3.5	2.5	3.0

ED = emergency department; RJH = Royal Jubilee Hospital; SPH = Saanich Peninsula Hospital; VGH = Victoria General Hospital.
*Unless otherwise indicated.

patients and family members, the role of the PCU in meeting local needs remains unknown.

Despite the lack of patient and family member input, it is still possible to explore a number of service use patterns within this unit. For example, even though rooms to accommodate the end-of-life needs of Aboriginal residents are available, uptake among this population remained low across both years of the study. At this time, initiatives continue to help inform and familiarize Aboriginal people with the palliative program and unit. These initiatives include tours of the unit, sharing circles about end-of-life issues, and meetings with health care providers and leaders in communities.

The short LOS by patients in the PCU is consistent with other palliative program experiences. For example, in an examination of palliative services in a semirural community in Britain, Herd²¹ found that, of those admitted to hospital, just over half had an LOS of less than 10 days. A short LOS is not unexpected given trends around preference for location of death. It is well documented that most people prefer to die at home;²² however, a home death is not always possible. The inability to provide adequate symptom management in the home setting is a major factor in the decision to transfer the patient to a more appropriate setting where his or her care needs can be met. Indeed, the primary reason for admission to the PCU in our study, as well as in the study by Herd,²¹ was symptom management. This decision to stay at home as long as possible suggests that patients enter the PCU very near the end of life, resulting in a short LOS in the PCU.

In terms of service use, figures have declined from 2005 to 2006 for a number of the services. As the figures are incomplete, it is unknown whether they accurately represent trends in use of services. What is known, however, is that the provision of these services is more complex than just the issue of receipt/nonreceipt as captured in the hospital charts. To determine possible explanations for trends in service use patterns it is necessary to look beyond simple dichotomies and begin to ask questions of patients and family members about the importance of, and satisfaction with, the provision of these services.

Finally, trends indicate that the PCU is not only being used in an appropriate manner as originally conceived, but also that the beds are in high demand and are often unavailable. Indeed, our findings suggest that almost 45% of all reasons for nonadmission are because a bed is not available. This pattern may suggest that the number of palliative care beds needs

to be increased. However, a closer examination of the factors that influence reasons for nonadmission are required to make that determination.

CONCLUSION

Data on use of services collected from hospital charts can provide valuable information to inform program and policy decisions. Yet, such information is limited in relation to answering the question of whether end-of-life needs of local residents are being met. Future studies should consider input from families and patients to enhance our understanding of the role of a PCU in a semirural environment.

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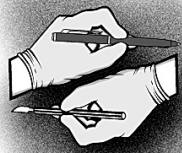
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ORIGINAL ARTICLE ARTICLE ORIGINAL

Use of a “secure room” and a security guard in the management of the violent, aggressive or suicidal patient in a rural hospital: a 3-year audit

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Introduction: Little has been published on the management of psychiatric crises in rural areas, and little is known of the security needs or use of “secure rooms” in rural hospitals.

Method: We conducted a 3-year retrospective chart audit on the use of our secure room/security guard system at a rural hospital in a town of 3500, located 220 km from our psychiatric referral centre.

Results: Use of our secure room/security guard system occurred at the rate of 1.1 uses/1000 emergency department visits, with the most common indication being physician perception of risk of patient suicide or self-harm. Concern for staff safety was a factor in 10% of uses. Eighty percent of patients were treated locally, with most being released from the secure room after 2 days or less. Fourteen percent of patients required ultimate transfer to our psychiatric referral centre and 6% to a detoxification centre. The average annual cost of security was \$16 259.61.

Discussion: A secure room can provide the opportunity for close observation of a potentially self-harming patient, additional security for staff and early warning if a patient flees the hospital. Most admissions were handled locally, obviating the need for transfer to distant psychiatric referral centres. Most patients who were admitted were already known as having a psychiatric illness and 80% of the patients required the use of the secure room/security guard system for less than a 2-night stay, suggesting that most rural mental health crises pass quickly.

Conclusion: Most patients admitted to a rural hospital with a mental health crisis can be managed locally if an adequate secure room/security guard system is available.

Introduction : Relativement peu d'articles ont été publiés sur la prise en charge des situations de crise chez les patients psychiatriques en région rurale et on en connaît peu sur les besoins en matière de sécurité ou sur l'emploi des chambres d'isolement dans ce contexte, dans les hôpitaux ruraux.

Méthode : Pour une période de trois ans, nous avons procédé à une analyse rétrospective des dossiers sur l'utilisation de la chambre d'isolement et du service de sécurité de notre hôpital rural, situé dans une localité de 3500 habitants, à 220 km de notre centre de référence psychiatrique.

Résultats : Nous avons observé un taux d'utilisation de la chambre d'isolement ou du service de sécurité correspondant à 1,1 utilisation par 1000 consultations annuelles au service d'urgence, l'indication la plus courante étant que le médecin percevait un risque de suicide ou d'automutilation chez le patient. L'inquiétude vis-à-vis de la sécurité du personnel a constitué un facteur dans 10 % des cas. On a pu traiter sur place 80 % des patients et la majorité d'entre eux ont pu quitter la chambre d'isolement au bout de 2 jours ou moins ; 14 % des patients ont dû être transférés au centre de référence psychiatrique et 6 %, dans un centre de désintoxication. Le coût annuel moyen des mesures de sécurité a été évalué à 16 259,61 \$.

Discussion : Une chambre d'isolement permet l'observation étroite des patients sus-

ceptibles de se faire du mal, constitue une mesure de sécurité additionnelle pour le personnel et permet de donner plus rapidement l'alerte si le patient quitte l'hôpital sans autorisation. La plupart des admissions ont été prises en charge localement, évitant le recours à un transfert vers un centre de référence psychiatrique éloigné. La majeure partie des patients admis étaient déjà connus pour leurs problèmes psychiatrique et 80 % ont passé moins de 2 nuits dans la chambre d'isolement ou sous la surveillance du service de sécurité, ce qui donne à penser que la plupart des crises s'estompent rapidement chez les patients psychiatriques des régions rurales.

Conclusion : La majorité des patients psychiatriques en crise admis dans un hôpital rural peuvent être pris en charge localement lorsqu'il existe une chambre d'isolement ou un service de sécurité adéquats.

INTRODUCTION

Although a recent US survey of 187 American rural health facilities estimated that 9.4% of emergency department (ED) visits were for "some type of mental health problem"¹ and rural-specific protocols for the management of psychiatric emergencies have been published,² little is known of the management of mental health crises in rural areas.

In the treatment of the violent, aggressive or suicidal patient, rural hospitals face specific difficulties:

- We lack on-site, trained mental health workers and psychiatrists;
- Patients who are potentially violent, aggressive or suicidal are often cared for in a general medical ward, often with minimal staffing at night and on weekends;
- Rural hospitals often have only a minimal security presence and police response times can be long;
- Distances to psychiatric facilities are long and they may not accept patients off-hours.^{3,4}

A 2004 survey of 443 randomly selected US hospitals revealed that 27.8% used "seclusion," most commonly (95.7%) a room within the ED.⁵ Apart from an Australian review of 8 patients admitted to a "special care suite for severely disturbed patients" published in 1994,⁴ little data on the use of security rooms in rural hospitals has been published. We decided to conduct a 3-year retrospective chart audit on how physicians use the secure room/security guard system at our institution and what the final disposition of the patients was.

METHODS

Structure of the secure room

The Centre de Santé de Temiscaming-et-de-Kipawa is a family physician-staffed in- and outpatient facility

serving the town of Temiscaming, Que., a pulp and paper town with a catchment area population of 5000. Twenty-four hour emergency service is provided. Only 2 or 3 nurses are present in the building on nights and weekends and they are required to staff the ED as well. There is no permanent security guard on duty. Our designated psychiatric referral centre is Centre Hospitalier Rouyn-Noranda, (CHRN,) a 200-bed general hospital situated 225 km north of the centre. Owing to a shortage of psychiatrists and bed there, referral is often not possible nights or weekends. Locally, we have a psychosocial health team staffed by social workers and intermittently by a psychologist. Drug screening is available at all times. Psychiatric telephone consultation alone, without a request for transfer, is generally not available to us.

Our "secure room" is a stripped-down, ground floor room in our 9-bed short-term medical unit, built in 2002 at a conversion cost of about \$2000. In its default setting it contains only a bed (Fig. 1). At the physician's discretion, additional furniture such as chairs and a television can be provided. The entrance door can be locked and there is a window, curtained on the outside, through which the nurse can observe the patient (Fig. 2). Oxygen and monitoring ports have been retained (so the room can also be used as a regular hospital room) but these have been recessed and covered with a Plexiglass lid. The bathroom can be locked to the patient and has no lock on the inside, so that the patient cannot lock him- or herself inside. Use of the secure room and the calling of the security guard must be specifically ordered by the physician.

We contracted with a security firm to provide an unarmed security guard on a 1-hour on-call basis. A desk and chair is provided for the security guard and is usually just outside the door, but can be located inside the room at the discretion of the physician.

Secure room usage

A log was obtained from the security firm of all billed presences from September 2004 to September 2007, including information on the exact number and time of billed hours. Our patient census was consulted to obtain the names of all admitted patients for those days. Their charts were reviewed to determine which patient was admitted to the secure room. Charts of all those admitted were reviewed to determine demographic data, diagnosis upon admission, the physician's reason for the use of the secure room, medications prescribed and consultations obtained, as well as the final disposition of the patient.

RESULTS

Over the 3-year survey period a total of 35 115 patients were seen in the ED. There were a total of 39 individual uses of the secure room/security guard system — an average usage of slightly more than once per month or a rate of 1.1 uses/1000 ED visits. Over the 3-year period the hospital contracted for a total of 1618.5 hours of security guard presence (average 539 hr/yr) at a total cost of \$48 777.94 (average \$16 259.31/yr).

For 3 admissions, totaling 43.5 hours usage, it was not possible to identify the patient from hospital census figures. In the remaining 36 uses, the patient could be identified and the chart reviewed.

Nineteen admissions of male patients were analyzed (median age 40, range 18–82, mean age 42.7 yr) involving 17 different men. Two men were admitted on 2 separate occasions. There were 17 admissions of female patients (median age 28, range 14–45, mean age 31.5 yr) involving 16 patients. One woman was admitted twice.

Admission data appear in Table 1. In terms of the diagnosis upon admission, drug overdoses and depression each accounted for almost one-quarter (23% each) of the admissions. In terms of the immediate indication for security, by far the most common factor cited was the physician's perceived risk of harm to the patient from him- or herself — 23 of 39 admissions (59%) — but concerns for staff safety were cited in 4 of 39 admissions (10%). Just under half of patients, 17 of 36 (47%), were admitted during the day shift and only 5 of 36 (14%) were admitted during the night shift. Defining the “weekend” — a time when staffing is at its lowest — as 1600 Friday to 0800 Monday, 13 of 36 (36%) admissions were classified as weekend admissions.

A psychiatric diagnosis before admission to the secure room was noted in the charts of 25 of 36 patients (75%). Only a small proportion, 6 of 36 admissions (17%), were “involuntary” under Quebec's Mental Health Act. There were no records of physical restraints being applied to any patient, nor of any assaults or threats to staff. To our knowledge, none of the patients admitted have since committed suicide although one has been convicted of homicide.

In terms of pharmacotherapy, 20 of 36 patients (56%) were prescribed tranquilizers, sedatives/hypnotics or antidepressants, a figure in line with the 69.9% reported as receiving “chemical restraint” in Zun and Downey's⁵ survey of 443 US emergency “seclusion” rooms. The most commonly used drug was lorazepam, given alone to 8 of 36 patients and in combination with haloperidol to 4 of 36, in accordance with rural guidelines.³ In total, a benzodiazepine was prescribed to all patients who received psychiatric drugs, save for 1 patient who was prescribed citalopram alone. Two other patients were prescribed other antidepressants

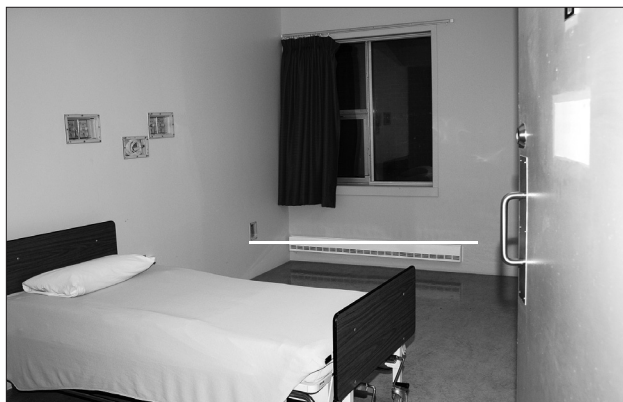


Fig. 1. General view of the secure room in its “default setting.” The bathroom door is on the right. Note the recessed monitoring and oxygen fixtures on the left.



Fig. 2. Nurse's view of the patient through the exterior-curtained window.

along with a benzodiazepine. Seven patients (19%) received a major tranquilizer.

Psychosocial service consultations and drug screening were obtained in 23 of 36 (63%) and 17 of 36 (47%) admissions, respectively.

In terms of length-of-stay and final disposition, 30 of 36 (83%) of admitted patients were kept 2 nights or fewer; of these, 25 (83%) were discharged directly home. Ultimately, only a total of 5 of 36 (14%) of admissions were subsequently transferred to our referral psychiatry institute (CHRN) and 2 more were transferred to detoxification centres (6%). Thus, overall, a total of 29/36 (81%) admitted patients were discharged directly home.

DISCUSSION

The use of a “secure room” or “seclusion” is defined as “the confinement of a patient to a defined area for

a given amount of time.” Four types of “seclusion” have been defined:⁵ 1) placing the patient in a locked room; 2) placing a patient in a room with the door physically held shut; 3) placing the patient in a room where free movement is inhibited; and 4) separating a patient from the group. Although Muralidharan and Fenton⁶ reported in 2006 that there were no randomized studies supporting the use of “non-pharmacological methods for the containment of violence or self harm in patients with serious mental illness,” our stated goals in the construction of our secure room and engagement of a security guard included the following:

- 1) To provide for close, one-on-one observation of the patient in a room constructed so that the potential of the patient to harm him- or herself has been minimized;
- 2) To provide additional security for staff and hospital during hours when staffing is minimal;
- 3) To provide early warning if a patient flees the hospital.

Our audit showed that the most common indication for the physicians’ use of the secure room was concern over the patient’s potential for self-harm. Concerns for staff security were mentioned in 10% of admissions. Drug abuse — as opposed to an acute overdose of prescribed drugs — accounted for a smaller proportion. A small Australian review showed that 5 of 8 patients admitted to their “special care suite” were schizophrenic.⁴ Only 3 of 36 (8%) patients in our audit had such a diagnosis and an additional patient was “psychosis, nonspecified.” A high proportion (75%) of patients were already known to have a psychiatric disorder before their admission.

Eighty percent of admissions could be handled purely locally, obviating the need to refer to another, distant facility. In only 5 out of 36 (14%) admissions did the patient ultimately require referral to a larger hospital with a psychiatry department, and an additional 2 (6%) needed referral to a detoxification unit. Almost all admissions were for 2 nights or less, suggesting that a high proportion of rural mental health crises will pass in less than 2 days and — if adequate physical plant and security presences are available — most patients can be treated locally. We urge rural hospitals to consider constructing such a “secure room” and to contract with a security firm.

Weaknesses of this type of study include the retrospective nature of collected data: only chart-recorded facts could be used for analysis. Accuracy of the psychiatric diagnoses cannot be substantiated

Table 1. Admission data

Data	No. of patients		
	Male	Female	Total
Admission diagnosis			
Drug overdose	3	6	9
Depression	5	4	9
Schizophrenia	2	1	3
Cocaine use	—	3	3
Adjustment disorder	2	—	2
Alcohol or drug withdrawal	2	—	2
Alcohol intoxication	1	—	1
“Speed” use	—	1	1
Drug abuse, nonspecified	—	1	1
Psychosis, nonspecified	—	1	1
Alcohol intoxication or head trauma	1	—	1
Personality disorder	1	—	1
Head trauma	1	—	1
Nonspecified	1	—	1
Indication for security			
Risk of suicide or self-harm	10	13	23
Agitation or aggression	4	1	5
Concern for staff safety	2	2	4
Withdrawal	1	—	1
Nonspecified	2	1	3
Shift of admission			
Day, 0800–1600	9	8	17
Evening, 1600–2400	8	6	14
Night, 2400–0800	2	3	5
“Weekend,” Fri. 1600 to Mon. 0800	7	6	13
Psychosocial services			
consult	10	13	23
Drug screen performed			
	7	10	17

and, although suicide or self-harm risk was the most common immediate indication for use of the secure room, it was not possible to quantify the actual suicide or self-harm risks of the patients to any objective degree. We intend this to be a focus of a larger, multicentre study. Additionally, our study could only assess patients for whom the security guard was called, and cases in which only the security room was used and no security guard was called would not have been identified.

CONCLUSION

Our study revealed that our secure room/security guard system was used slightly more often than once a month at a rate of 1.1 uses/1000 ED visits over a 3-year period. The average annual security cost to the institution was \$16 259.61. The most common indication by far was the physician's perceived risk of patient suicide or self-harm, although security for staff was a factor in 10% of admissions. Most patients required a stay of 2 nights or fewer, the crisis presumably over, and 80% of patients were managed purely locally. Only 14% required ultimate referral to a psychiatric hospital and an additional 6% required referral to a detoxification unit. We conclude that most patients presenting

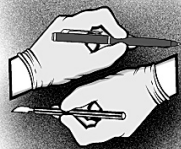
with a mental health crisis to a rural hospital can be managed locally if an adequate "secure room" and security guard system are available.

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ORIGINAL ARTICLE ARTICLE ORIGINAL

Where did the doctors go? A study of retention and migration of provisionally licensed international medical graduates practising in Newfoundland and Labrador between 1995 and 2006

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Introduction: More than any other Canadian province, Newfoundland and Labrador (NL) relies on provisionally licensed international medical graduates (PLIMGs) to provide primary health care, particularly in rural communities. However, turnover among PLIMGs is high, and this is expensive and disruptive to the populations they serve.

Methods: We developed and analyzed a database that allowed us to quantify the turnover among PLIMGs and also to determine the Canadian destinations of PLIMGs who cease practising in NL.

Results: We found that about 1 in 5 PLIMGs remain in province for a period of 5 years and that those who emigrate within Canada are most likely to go to Ontario. Many PLIMGs cannot be tracked after they leave the province.

Conclusion: We speculate that many PLIMGs are moving on to the more lucrative US market.

Introduction : Terre-Neuve-et-Labrador (T.-N.-L.) dépend plus que toutes les autres provinces canadiennes des diplômés de facultés de médecine étrangères autorisés sous permis provisoire (DFMEPP) pour offrir des soins de santé primaires à ses citoyens, surtout dans les collectivités rurales. Cependant, le roulement du personnel est élevé parmi ces diplômés, situation qui coûte cher et qui a un effet perturbateur sur les résidents de ces collectivités.

Méthodes : Nous avons conçu une base de données et en avons fait l'analyse. Elle nous a permis de quantifier le roulement des DFMEPP et de connaître l'emplacement de ceux qui ont arrêté de pratiquer la médecine à T.-N.-L.

Résultats : Nous avons déterminé qu'un DFMEPP sur cinq reste à T.-N.-L. pendant cinq ans, et que ceux qui émigrent au Canada vont surtout en Ontario. Il est difficile de suivre les DFMEPP lorsqu'ils ont quitté la province.

Conclusion : Nous supposons que plusieurs DFMEPP se déplacent vers les États-Unis, dont le marché est plus lucratif que celui du Canada.

INTRODUCTION

Previous research has demonstrated that there are different practices from province to province with respect to the licensing and employment of provisionally licensed international medical graduates (PLIMGs).¹ This earlier work

demonstrated that Newfoundland and Labrador (NL) relied heavily on PLIMGs for the delivery of medical services, particularly in rural and remote communities.

One of the reasons this has been an issue of considerable discussion is that these physicians tend to be much more

inclined to relocate compared with their fully licensed counterparts. In the decade between 1994 and 2003, interprovincial migration among fully licensed physicians was about 2% per year.²

This tendency to relocate results in an expensive ongoing need to recruit physicians. Furthermore, given that there is a well-established link between continuity of care and patient satisfaction, individuals residing in rural and remote communities may have systematically lower levels of satisfaction with their providers simply because they are unable to develop and maintain long-term relationships with their family physicians.^{3,4}

Physicians typically practise under a provisional licence if they are deemed to have the necessary qualifications and training, but lack the service time to be certified by a Canadian college. Full licensure requires certification from a national college such as the College of Family Physicians of Canada (CFPC). The CFPC typically requires 2 years of practice in Canada and the successful completion of a series of examinations before it allows entry into the college and thus an opportunity to practise anywhere in Canada. As such, most PLIMGs seek a full licence and will work toward this end while in provisional practice. The anecdotal evidence suggests that upon entry into a Canadian college, the former PLIMG will resign from practice in rural NL and take up practice in another Canadian province.

Our paper has 2 broad aims. We seek to develop a better understanding of the retention of PLIMGs in NL and to find out what becomes of those who leave provisional practice in NL.

Table 1. Provisionally licensed international medical graduates practising in Newfoundland and Labrador, by year

Year	No. of PLIMGs practising in NL	No. of new PLIMGs practising in NL
1995*	162	—
1996	166	38
1997	180	38
1998	190	57
1999	196	43
2000	186	38
2001	194	50
2002	209	53
2003	196	43
2004	181	32
2005	185	28

PLIMG = provisionally licensed international medical graduate.
 *For 1995 we were able to determine how many PLIMGs were practising in NL, but we were unable to determine how long they were in practice in the province at that time.

METHODS

A database of PLIMGs who practised in NL from 1995 to 2004 was developed for tracking their movements within Canada through to 2006. (This database was provided by the Newfoundland and Labrador College of Physicians and Surgeons.) Postal codes were recorded as listed in the relevant 12 years (1995–2006) of the Canadian Medical Directories.⁵ Once this database was completed we were able to track all PLIMGs during their time in practice in NL and identified the postal code to which they relocated if they left the province.

RESULTS

There were 1176 PLIMGs who practised in NL from 1995 to 2006. Table 1 displays the number of PLIMGs working in the province each year and the number of new PLIMGs who entered the province each year.

The data as described above are organized into annual cohorts of the number of PLIMGs who were new to practice in NL each year. We then examined where they were in the years that followed. Essentially, from year to year a physician can fall into 1 of 3 categories. They can

- remain in practice in NL (under provisional or full licence);
- relocate to practise in another Canadian province;
- cease practising medicine in Canada.

Figure 1 shows the retention rates of PLIMGs by year of practice.

Given that this analysis covers an 11-year period, it is important to examine how retention changed over this timeframe. Figure 2 shows 1-, 2- and 3-year retention rates separated by cohort.

A final objective of this analysis was to examine what happens to PLIMGs after they cease practising

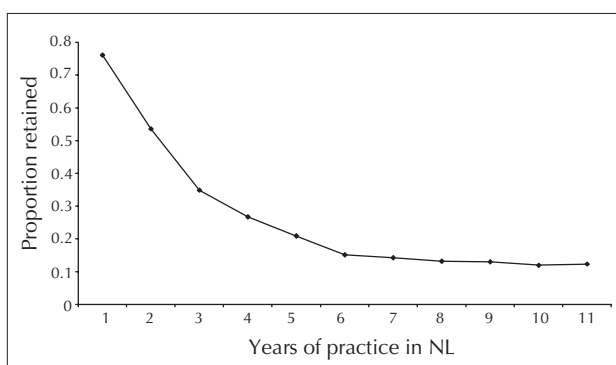


Fig. 1. Retention of provisionally licensed international medical graduates by years of practice in Newfoundland and Labrador.

in NL. The initial results revealed that we are not able to track most PLIMGs after their departure from NL. Just over 61% of those who practise as PLIMGs cannot be tracked using the annual Canadian Medical Directory.⁵ Note that the directories only include physicians practising under a full licence. This raises a number of possibilities. They may have

- given up practising medicine;
- continued practising medicine under a provisional licence in another province;
- continued to practise medicine in another country.

Interprovincial migration of PLIMGs is also of interest. There is some concern that NL is effectively screening IMGs for other (wealthier) parts of Canada. Figure 3 shows the provinces to which PLIMGs have migrated after becoming fellows of a Canadian medical college.

A review of the 205 cases of interprovincial migration identified in the database showed that 180 (87.8%) moved to urban locations when they left NL, suggesting a loss of rural physicians. (Urban areas are defined as those locations with the second character of the postal code being “0.”)

DISCUSSION

Physician recruitment and retention has been an ongoing concern in NL. The 11-year trends suggest that low rates of retention are an important phenomenon. Many rural communities will have gaps in coverage, with those in need of medical services having to travel long distances to receive treatment.

Figure 1 indicates that the most rapid fall-off of PLIMGs leaving the province is after the second year, which coincides with the standard contractual term for most PLIMGs practising family medicine in NL. It also coincides with the length of time

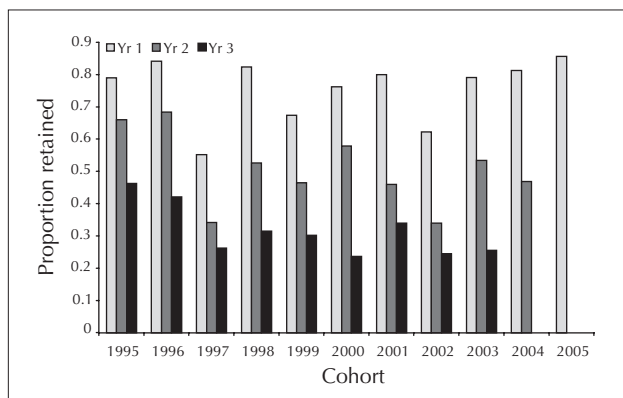


Fig. 2. Retention of provisionally licensed international medical graduates, by cohort.

needed to be in Canadian practice to qualify to write the examinations for entry into the Canadian College of Family Physicians.

Figure 2 demonstrates that 1-year PLIMG retention has improved in recent years; however, this is offset by a decline in 2- and 3-year retention, respectively. This suggests that PLIMGs are seeing through their (typical) 2-year contracts and then leaving. It appears PLIMGs are not becoming more likely to stay in NL on a long-term basis.

Given the salary differentials for physicians as compared with most other occupations, and given the number of years invested in their education and practice, it is unlikely that they would give up practising medicine, and it seems rather more likely that they have taken up provisional practice elsewhere or have emigrated from Canada. The latter is a particularly interesting prospect, since many countries (including the United States) treat certification from a Canadian medical college as equivalent to passing their own and as such these individuals are able to practise without restriction. It may be that the many PLIMGs are using their time in NL as a stepping stone to the more lucrative US market.

Which provinces tend to benefit the most from PLIMG migration from NL? Figure 3 demonstrates that the most common Canadian province for PLIMG migration is Ontario. This is not surprising since Ontario is the largest Canadian province, and physicians in Ontario tend to be better compensated than those in NL. Furthermore, many urban centres in Ontario have much more ethnic diversity than rural NL and, therefore, it is not surprising that physicians would seek to live in communities where they have access to more individuals from culturally similar backgrounds.

Almost 21% of physicians migrating out of NL take up practice in Nova Scotia. We find this surprising because compensation for physicians in Nova Scotia is not as lucrative as many other parts

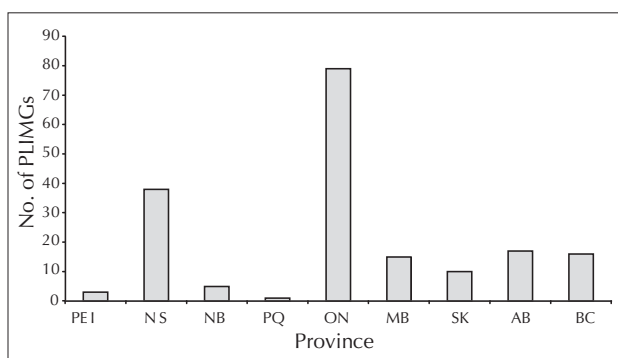


Fig. 3. Destination provinces of provisionally licensed international medical graduates.

of Canada. Nor does Nova Scotia have a large immigrant population into which the PLIMG could easily assimilate.

Reliance on PLIMGs to provide primary health care in rural NL has become a costly but necessary reality. Many rural and remote communities see the local family doctor as a temporary position and seek stability. As the market for physicians becomes increasingly global, the opportunities for those practising in rural and remote locations will expand, making retention more difficult. As noted above, it is also a concern that NL is screening physicians for subsequent migration, with those who have successfully gained entry into a Canadian college tending to migrate on and those who have not remaining in practice in NL.

CONCLUSION

Increasing the supply of Canadian-trained physicians to rural communities is a process that will take several years to implement. However, better retention of new physician recruits is critical in alleviating the ongoing problem of high turnover. More study is needed to determine the factors associated with successful retention of PLIMGs in rural and remote communities in NL. Particular emphasis should examine what role specific institutions (the provincial department of health and community services, the provincial medical association, regional

health authorities and educators) can play in terms of providing the necessary support to PLIMGs. In addition, finding better initial matches — recruiting people who are more likely to stay — will result in lower turnover. Identifying characteristics (both of the physician and the community) that help predict better matches is an avenue of research that should be extended. In addition, effectively promoting rural practice among Canadian medical graduates will reduce the need for Canadian communities to rely on PLIMGs.

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Competing interests: None declared.

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Doctors Speak Out

Podium — Letters to the Editor — Editorials

We invite physicians to speak out on issues that concern them.
Send your submissions to Suzanne Kingsmill, Managing Editor,
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Les médecins s'expriment

La parole aux médecins — Lettres à la rédaction — Éditoriaux

Nous invitons les médecins à commenter les questions qui les intéressent.

Faites parvenir vos textes à Suzanne Kingsmill, rédactrice administrative,
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THE PRACTITIONER LE PRACTICIEN

Quinsy (peritonsillar abscess)

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Sometimes tonsillitis or pharyngitis can progress to an abscess in one of the closed compartments surrounding the pharynx. The symptoms of a peritonsillar abscess are much more severe than those of tonsillitis or pharyngitis. The typical patient will be an adult who presents for care somewhat dehydrated after 3 or 4 days of worsening symptoms.

The hallmark symptoms in addition to fever and malaise are

- odynophagia — difficulty swallowing even liquids;
- trismus — difficulty opening the mouth;
- change in voice — muffled voice, “hot potato” voice.

The hallmark physical signs are

- unilateral swelling of the anterior tonsil pillar, especially the upper end of anterior tonsil pillar;
- tonsil itself is enlarged and displaced medially;
- uvula displaces to opposite side;
- tenderness and often swelling on the ipsilateral side of the neck at the angle of the jaw.

The surgical treatment is a small simple incision in the most swollen part of the upper anterior tonsil pillar to drain the pus. Needle aspiration at the same location is a newer option¹ but appears not to relieve symptoms nearly as well,² although steroids may mitigate that.³ Incision and drainage (I & D) is the preferred approach at our rural hospital.

EQUIPMENT

- # 11 blade
- # 3 handle
- small curved hemostat
- Frazier suction and tubing

- tongue depressor
- 2% lidocaine with epinephrine
- 3-mL syringe with 25-gauge needle for anesthesia
- 10-mL syringe with 18-gauge needle for aspiration
- gloves and mask
- K-basin
- flashlight or headlamp

METHOD

1. Drainage of a peritonsillar abscess is generally done in the emergency department. The procedure can be done totally under local anesthesia. This makes the procedure slightly more difficult because the patient typically cannot open his or her mouth very much.
2. If the patient is very nervous it helps to use some intravenous sedation. Midazolam 4 mg administered intravenously works well to relax the patient. It is potentially dangerous to have the patient sedated to the point that they cannot cooperate in spitting out any blood or pus that accumulates in his or her mouth. Even though an anesthetized patient would be more cooperative, don't expect that you will convince a colleague to give the patient a general anesthetic. It can be difficult to intubate someone who has swelling in the back of the throat. If such is contemplated as required for the patient, then the case may warrant referral to an otolaryngologist.
3. The patient should be sitting up with a pan handy to spit any blood or pus into. A nurse can shine a flashlight into the mouth or use a

headlamp. The importance of adequate positioning and lighting cannot be overemphasized.

4. A tongue depressor is needed to retract the tongue.
5. Inject 1–2 mL lidocaine 2% with epinephrine (to minimize bleeding) just under the mucosa where the I & D incision will be made, at the point of maximal swelling (Fig. 1).
6. If you are not sure where in the swollen area to incise, you can check for pus by simple needle aspiration. You can trim the needle guard so that only a centimetre of needle shows or tape the needle so you won't insert it too deeply. Find the spot with the pus and remove as much material as possible. You can leave it just aspirated or, alternatively, proceed to incision as below.
7. Use a # 11 blade scalpel to make a tiny incision up and down no more than 1/2-cm long and inserting the scalpel blade no more than 1-cm deep. If you are worried about cutting too deeply, tape the blade at the 1-cm mark as a visual cue.
8. DO NOT extend the incision laterally as the carotid artery lies 1.5-cm lateral (and posterior) to the tonsil. As with any I & D in which there are important structures nearby, the blade is used just to access the tissue and blunt dissection is used to ensure complete drainage.
9. After making the I & D incision, use a small hemostat through the incision to probe into the abscess to release the pus. Sometimes if there is only a peritonsillitis and no abscess there may be no significant pus drainage but only a small quantity of blood.



Fig. 1. Left-sided quinsy; note the displaced uvula.

FOLLOW-UP

1. If you don't get any pus or have just aspirated pus without incision, it is particularly important to recheck the patient's progress on antibiotics in 24 to 48 hours.
2. Toxic or dehydrated patients, as well as those who cannot swallow, benefit from admission to hospital for 1–2 days until they are able to swallow at least liquids.
3. Bacterial culture is usually mixed with group A β -hemolytic *Streptococcus* and *Fusobacterium* being the most commonly isolated.⁴ Thus penicillin G 2 million units intravenously every 6 hours is commonly used, sometimes in combination with metronidazole. Alternately, consider clindamycin 600 mg intravenously every 8 hours.
4. If the patient can drink liquids and can go home, consider an antibiotic regime such as penicillin V 600 mg 4 times per day, clindamycin 300 mg every 6 hours or probenecid 1 gm orally followed in half an hour by penicillin G 2 million units intravenously every 12 hours for 7 days.
5. Although there is little evidence to guide us, at our hospital the patient is usually advised to have an interval tonsillectomy⁵ done in 2–6 weeks following a quinsy to prevent a recurrence.

CONCLUSION

Rural doctors can effectively diagnose and treat peritonsillar abscesses. Most patients just need I & D followed by antibiotics. A few patients may need to be admitted to hospital.

Competing interests: None declared.

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OUT BEHIND THE BARN DANS LE FEU DE L'ACTION

An Excel balancing act

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The Microsoft Excel spreadsheet program (part of Microsoft Office, Microsoft, Corp.) is a useful tool for doing calculations and other “number crunching” tasks. This article demonstrates some of Excel’s basic features by showing you how to create a spreadsheet to balance your chequebook. The instructions are based on the Excel 2002 version, but will be similar for other versions.

GETTING STARTED

Start the Excel program. It will automatically display a blank “workbook” with the name “Book1.xls”. Click on the “Save” icon, give the file a new name and then select a folder where the file should be stored.

SPREADSHEETS AND WORKSHEETS

In each new workbook file, Excel displays 3 blank “worksheets” labelled Sheet 1, Sheet 2 and Sheet 3. You can move to a different worksheet by left-clicking on its tab at the bottom of the screen. By right-clicking on the tab, you can rename, copy, move or delete any worksheet.

ROWS, COLUMNS AND CELLS

Each box in a worksheet is called a “cell”. Columns are labelled with letters and rows with numbers, giving each cell a unique address (e.g., A1 or B13). In Figure 1, there are 2 columns (A–B) and 13 rows (1–13). In calculations, a “range” of cells is defined by listing the first and last cell names, separated by a colon. In Figure 1 the range of the first

row is “A1:B1”, the range of the first column is “A1:A13” and the range of the entire table is “A1:B13”.

FILL IN THE BLANKS

To make a worksheet like Figure 1, click inside box A1 and then type the word “Statement” (without quotation marks). The content of the current cell are duplicated in the “Function (fx)” window at the top of the worksheet. To edit the contents of any cell, use the function window. Next, enter “Deposits”, “Subtotal”, “Withdrawals”, “Subtotal” and “Balance” in cells A3, A6, A8, A11 and A13, respectively. Last, enter a zero in cells A4–A5, A9–A10, B1, B6, B11 and B13.

FORMAT THE CELLS

Excel can display a cell’s contents in different formats. In our example, we need to change all cells with a zero to the “Currency” format. Click in cell B1, hold down the left mouse button and then drag the mouse down until cells B1–B13 are highlighted. Release the mouse button then click on “Format” in the main menu bar. In the pop-up window, click on “Cells” then on the “Number” tab. Click on the “Currency” option and then on “OK”. Do the same for cells A4–A5 and A9–A10. This reformats all of the “zero” boxes to display a dollar sign and 2 decimal places.

ENTER YOUR DATA

Click in box B1 and type in \$1000.00 to represent the final balance on your bank statement. In boxes A4 and A5, type in \$50.00 and \$40.00 for 2 deposits

	A	B
1	Statement	0
2		
3	Deposits	
4	0	
5	0	
6	Subtotal	0
7		
8	Withdrawals	
9	0	
10	0	
11	Subtotal	0
12		
13	Balance	0

Fig. 1. Blank Excel worksheet.

not listed on the statement. In boxes A9 and A10, type in \$100.00 and \$200.00 for 2 outstanding withdrawals not listed on the statement.

CREATE FORMULAE

Next, we will create 2 formulae to total the outstanding deposits and withdrawals. Click in cell B6, then enter the formula “=SUM(B4:B5)” (without the quotation marks). The equal sign tells Excel that the cell contains a formula. The “SUM” function totals the amounts in the specified range of cells “(B4:B5)”. Next, click in cell B11 and then enter the formula “=SUM(B9:B10)”.

CALCULATE FINAL BALANCE

Our last task is to calculate the current account bal-

	A	B
1	Statement	\$1000.00
2		
3	Deposits	
4	\$50.00	
5	\$40.00	
6	Subtotal	\$90.00
7		
8	Withdrawals	
9	\$100.00	
10	\$90.00	
11	\$200.00	
12	Subtotal	\$390.00
13		
14	Balance	\$700.00

Fig. 2. Final Excel worksheet.

ance (the statement amount [B1] plus the outstanding deposits [cell B6], less the outstanding withdrawals [B11]). Click in cell B13 and enter the formula “= B1 + B6 - B11”.

ADDING MORE ROWS

Figure 1 only shows 2 outstanding deposits or withdrawals. To make room for more withdrawals, click in cell A10, then on the “Insert” icon in the main toolbar and then on “Rows”. Excel will insert a blank row above row 10, rename the rows below and then recalculate all formulae. Figure 2 shows the final worksheet after adding the extra row and entering a third withdrawal of \$90.00.

Competing interests: None declared.

THANKS TO ALL OUR HARD-WORKING REVIEWERS

We would like to thank all of our reviewers, mostly drawn from the ranks of rural docs from across Canada. Peer review works. Thanks for taking the time to review papers for us.

The Editors, *CJRM*



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TREATMENT OF ACUTE CARDIOGENIC PULMONARY EDEMA

To the Editor:

I read with interest the article titled "Rural treatment of acute cardiogenic pulmonary edema"¹ in the summer 2008 issue of *CJRM*. It was a very helpful look at what works and what doesn't, and I was about to generate a big change in my practice, starting with continuous positive airway pressure (CPAP) (though that's difficult in my hospital as only a few nurses know how to set it up), moving to nitro and sublingual captopril, with furosemide as a third-line drug and avoidance of morphine.

A few days later, I received an email summary of a study: "Non-invasive ventilation in acute cardiogenic pulmonary edema."² The authors demonstrated symptomatic improvement but no impact on short-term mortality or the need for intubation.

This leaves me wondering how strong the evidence is? Should I change from my usual practice of beginning with morphine and furosemide to that outlined in the *CJRM* paper?

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[The author replies:]

The evidence for noninvasive ventilation (NIV) in acute cardiogenic pulmonary edema (CPE) has been inferred from 4 meta-analyses,¹⁻⁴ the largest containing 938 patients. So convincing was the evidence for reduced intubation and in-hospital mortality that there was some opinion that it might be "unethical" to conduct further studies containing an oxygen-only arm.^{2,5} The new study⁶ is a megatrial of over 1000 patients, which, contrary to the best previous evidence, fails to support findings of reduced rates of endotracheal intubation and reduced mortality using NIV. It does, however, reinforce the value of NIV in earlier symptom improvement and early improvement of physiologic parameters, such as respiratory rate, oxygenation, acidosis and hypercapnia.

The new study by Gray and colleagues had very high recruitment rates and fewer exclusions than most of the studies included in the meta-analyses. Patients with chronic obstructive pulmonary disease and acute myocardial infarction were included. The patient population was generally older than that of some of the smaller studies. The study population was therefore somewhat different. Management seemed to be different as well, as demonstrated by an extremely low intubation rate in all groups — only 2.8% as compared with 10%–25% in the meta-analyses. Similarly, death rates in hospital were 9.5%

as compared with 10%–20% in the meta-analyses. Although an intention-to-treat analysis was followed, there was a rather large crossover in this study of 19%, mainly because of the failure of oxygen-only to improve clinical status and intolerance to the biphasic positive airway pressure (BiPAP) arm of the NIV group. No mention is made in this study as to how quickly the interventions were applied and whether there was a difference in early mortality (0–48 hr).

The study confirms that patient symptoms and physiologic parameters improve more quickly with the use of NIV. It also shows that CPAP is better tolerated than BiPAP, and that both modalities are safe. A recent retrospective analysis of the massive Acute Decompensated Heart Failure National Registry (ADHERE) of patients in acute decompensated heart failure shows that patients managed with NIV in fact have better outcomes than similar patients managed by endotracheal intubation.⁷ It may be that we cannot expect a short-term intervention to have an effect on long-term mortality, and that our anticipated end points with this intervention need to be different. Improvement in dyspnoea and physiologic parameters without adverse effect on longer term morbidity and mortality is probably a reasonable objective in early goal-directed therapy.⁸ One similar NIV study of over 100 elderly patients showed a significant 48-hour

mortality difference, but ultimately no change in longer term mortality.⁹ These early, short-term advantages cannot be discounted when initially managing these patients in small centres.

A parallel set of smaller prospective studies considers the use of NIV in the prehospital setting. A number of these again show a dramatic reduction in intubation rates and in-hospital mortality.¹⁰⁻¹² These findings suggest that the early use of CPAP in CPE may produce dramatic benefit, particularly if the diagnosis is in doubt.

There is now a simplified apparatus for administration of CPAP, especially in the prehospital setting. The Boussignac single-use system requires only an oxygen regulator that can supply 25 L/min to achieve a positive pressure of 10 cm water. There are several papers attesting to the effectiveness of this device in settings with minimal staff training and experience.^{13,14} This device should greatly simplify the process of administration and make it possible to apply the intervention early with the limited pairs of hands available in a rural emergency department.

When faced with a patient with CPE in a setting with limited resources, we have excellent evidence that there is a simple means of administering early CPAP, and that it will produce more rapid symptom relief and improved physiology. Because of this new paper, we can be less sure that rates of intubation or death will be reduced, but we can be reasonably confident that a choice for NIV will produce a better result than a choice for intubation, even if intubation is

eventually required.⁷ It seems likely that NIV should be applied early for best results, and that there are subgroups such as those with the highest presenting blood pressure^{7,8} and those with severe acidosis or hypercapnia⁴ who may selectively benefit from early intervention in terms of reduced intubation and in-hospital mortality. Another megatrial may be required to establish whether such benefit truly exists.

The evidence remains strong for early use of high-dose nitroglycerine. Furosemide remains an adjunct, bearing in mind that not all patients in CPE are volume overloaded. There was never good evidence for morphine. There is now a retrospective analysis of the ADHERE registry,¹⁵ which indicates increased intubation, intensive care unit admission, hospital length of stay and death with use of morphine. Morphine is, in fact, an independent predictor of death in CPE, even after risk adjustment and exclusion of ventilated patients, with an odds ratio of 4.84.¹⁵ Benzodiazepines work well if sedation is required.

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