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The value of equity

John Wootton, MD, Shawville Que.

CJRM 2003;8(1):7

The Romanow Report¹ came down four-square in favour of equity in the delivery of health care. There was the usual gnashing of teeth from the Fraser Institute, but in general most commentators felt that this "fundamental value" had been well served. In a report from the former Premier of the province where Medicare was born, this is not perhaps surprising. Nor is it surprising that equity could withstand the assaults of those who blame it for inefficiency and waste because, if the Commissioner is to be believed, the evidence to support this alternate point of view is scanty indeed.

There are dangers however in pinning policy to a "Holy Grail." Advocates for rural health have always maintained that equity demands that rural health receive its fair share: of resources, human and otherwise, of research, of attention. *CJRM* was founded on the premise that evidence could be found (and published) to demonstrate that this investment would yield dividends. What is this evidence?

When you look at Canada at night from 20 miles up, the patterns of light and dark dramatically highlight the concentrations of population, and the vast rural areas where populations are scattered, along with their lightbulbs. Looked at from this distance the influence of geography on the country is obvious.

A similar exercise is possible with respect to the concept of "equity." What is the influence of this nationally held belief (that equity in access to health care is a fundamental value) on the country as a whole? I suspect that this may be difficult to measure, but let me suggest a hypothesis for exploration.

Research in population health suggests that inequity leads to disease. At the most

basic level, inequity of income, social status, education, etc., leads to higher incidences of heart disease, cancer and infectious diseases. Although the mechanisms have not been worked out, it is hypothesized that chronic stress (brought on by relative rather than absolute inequity) has an effect on the immune system, and this in turn leads to measurable expression as disease.

The UN's Human Development Index ranked Canada in first place 6 years out of the last 8 (we're currently 3rd behind Norway and Sweden).² It has been reported in the popular press that following a visit to Canada in the pre-perestroika days, President Gorbachov was apparently so impressed by the Canadian way of life that he was stimulated to move his own country toward greater freedom and equity.

If this is not proof enough, consider the evidence that Canada is able to produce comparable (if not better) health outcomes for a lower investment (as a percentage of GDP) than the US, where equity quite famously does not hold sway. Perhaps, just perhaps, we should frame the equity debate in other than "Holy Grail" terms. Perhaps our population health researchers could help us out on this one. Maybe the reason we should preserve equity in the Canadian health care system is that it is healthier that way!

Competing interests: None declared.

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La valeur de l'équité

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Dans son rapport¹, la Commission Romanow s'est prononcée carrément en faveur de l'équité dans la prestation des soins de santé. L'Institut Fraser a grincé des dents comme d'habitude, mais la plupart des commentateurs étaient en général d'avis que l'on avait bien servi cette «valeur fondamentale». Ce qui n'est peut-être pas étonnant dans un rapport de l'ancien premier ministre de la province d'origine de l'assurance-maladie. Pas étonnant non plus que l'équité ait pu résister aux attaques de ceux qui lui attribuent l'inefficacité et le gaspillage parce que, s'il faut en croire le commissaire, les preuves à l'appui de cet autre point de vue sont fort minces.

Il y a toutefois danger à fonder une politique sur un «Saint Graal». Les défenseurs de la santé rurale ont toujours soutenu que celle-ci doit, pour des raisons d'équité, recevoir sa juste part des ressources, humaines et autres, de la recherche comme de l'attention. Le *JCMR* a été créé à partir de la prémisse selon laquelle on pourrait trouver (et publier) des données probantes pour démontrer que cet investissement produirait des dividendes. Quelles sont ces preuves?

Lorsqu'on jette un coup d'œil sur le Canada la nuit, à 20 milles d'altitude, les points lumineux et l'obscurité illustrent de façon spectaculaire les concentrations de la population et les vastes régions rurales où la population est dispersée. De cette distance, l'influence de la géographie sur le pays est évidente.

On peut se livrer à un exercice semblable au sujet du concept de «l'équité». Quel est l'effet de cette croyance nationale (selon laquelle l'équité de l'accès aux soins de santé constitue une valeur fondamentale) sur le pays dans l'ensemble? Je soupçonne qu'il sera peut-être difficile à mesurer, mais permettez-moi d'avancer une hypothèse à explorer.

La recherche sur la santé des populations indique que l'inégalité cause des maladies. Au niveau le plus fondamental, l'inégalité sur les plans du revenu, de la situation sociale, de l'éducation, etc., entraîne des incidences plus élevées de maladies cardiaques, de cancers et de maladies infectieuses. Même si l'on n'a pas cerné les mécanismes, on pose en hypothèse que le stress chronique (causé par l'inégalité relative plutôt qu'absolue) a, sur le système immunitaire, un effet qui se traduit de façon quantifiable en maladie.

L'indice du développement humain des Nations Unies a classé le Canada au premier rang six fois au cours des huit dernières années (nous sommes actuellement troisièmes, derrière la Norvège et la Suède)². On a signalé dans la presse populaire qu'après avoir effectué une visite au Canada à l'époque qui a précédé la perestroïka, le président Gorbachov a semblé si impressionné par le mode de vie canadien que cela l'a incité à accroître la liberté et l'équité dans son propre pays.

Si ce n'est pas suffisant comme preuve, considérons les données probantes qui indiquent que le Canada peut produire des résultats de santé comparables (voire meilleurs) à ceux des États-Unis, où l'on sait que l'équité n'a pas d'importance, contre un investissement moins élevé (en pourcentage du PIB). Nous devrions peut-être formuler le débat sur l'équité autrement qu'en termes de «Saint Graal». Nos chercheurs spécialisés en santé des populations pourraient peut-être nous aider. Peut-être devrions-nous préserver l'équité dans le système de santé du Canada tout simplement parce que c'est meilleur pour la santé! P> Intérêts: aucun déclaré.

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President's message: Challenges for 2003

Jill Konkin, MD, Jasper, AB

CJRM 2003;8(1):10

There were 2 major reports on the health care system in 2002: Building on Values: the Future of Health Care in Canada by Mr. Roy Romanow¹ and the Study on the State of the Health Care System in Canada by Senator Michael Kirby.² In both, rural and remote issues were recognized, and each report made recommendations to improve the delivery of services to our communities as well as to stabilize and expand health human resources in rural and remote locations.

National Rural Health Strategy

The Executive and Council of the SRPC will work hard to ensure that these recommendations remain an important component of the renewal of our health care system. We are also cautiously optimistic that the time has come for our proposal for a National Rural Health Strategy.³ For those of you who have the ear of your provincial Members of Legislative Assemblies or your Members of Parliament, please continue to advocate for rural health care and the need for a coordinated approach to the provision of health care services in rural and remote communities.

IMGs

There are important initiatives underway with regard to international medical graduates (IMGs). At the Council meeting in November 2002, a policy concerning IMGs was considered and will be recommended to the membership at the SRPC's AGM in April for approval. Please check the SRPC Web site for this policy (www.srpc.ca). Comments from the general membership are most welcome. We are also represented on a national task force to develop national procedures and

standards to facilitate the incorporation of IMGs into the Canadian workplace.

Primary care renewal

A committee of the executive is working on a policy on primary care renewal that will develop principles relevant to rural practice. Watch for a draft on the Web site. We will have this ready for final approval at our AGM in Kelowna.

Get involved!

The nominating committee is looking for members interested in becoming involved in our regional committees, standing committees and executive. If you are interested, please contact Dr. Peter Hutten-Czapski, chair of the nominating committee at phc@srpc.ca

Kelowna, BC -- April 2003

Please mark your calendars for Apr. 24–27, 2003 -- the SRPC's Annual Rural and Remote Medicine Course in Kelowna, BC. It's a chance for you to meet colleagues from across the country and to attend rurally relevant CME workshops and presentations while relaxing in a beautiful part of Canada.

Correspondence : Dr. Jill Konkin; jillk@telusplanet.net

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Message de la présidente : Défis pour 2003

Jill Konkin, MD, Jasper, AB

CJRM 2003;8(1):10

Deux grands rapports sur le système de santé ont paru en 2002 : Guidé par nos valeurs -- L'avenir des soins de santé au Canada, de M. R. Romanow¹, et l'Étude sur l'état du système de soins de santé au Canada dirigée par le sénateur M. Kirby². Dans les deux cas, on a reconnu les problèmes des régions rurales et éloignées et chaque rapport contient une recommandation afin d'améliorer la prestation des services à nos communautés, ainsi que pour stabiliser et augmenter les ressources humaines de la santé dans les régions rurales et éloignées.

Stratégie nationale sur la santé rurale

L'Exécutif et le Conseil de la SMRC ne ménageront pas leurs efforts pour assurer que ces recommandations demeurent un volet important du renouvellement de notre système de santé. Nous pensons aussi avec un optimisme prudent que le moment est venu de donner suite à notre proposition relative à une stratégie nationale sur la santé rurale³. Ceux d'entre vous qui ont leurs entrées auprès de leurs députés provinciaux ou fédéraux devraient continuer de défendre les soins de santé en milieu rural et de préconiser le besoin d'une stratégie coordonnée de prestation des services de santé aux communautés rurales et éloignées.

DFME

D'importantes initiatives en cours portent sur les diplômés de facultés de médecine étrangères (DFME). Au cours de sa réunion de novembre 2002, le Conseil a étudié une politique sur les DFME qu'il recommandera aux membres d'approuver au cours de l'AGA de la SMRC en avril. Veuillez consulter cette politique sur le site web de

la [SMRC](http://www.srpc.ca) (www.srpc.ca). Les commentaires des membres sont les bienvenus. Nous sommes aussi représentés à un groupe de travail national chargé d'établir des procédures et des normes nationales afin de faciliter l'intégration des DFME dans les milieux de travail du Canada.

Renouvellement des soins primaires

Un comité de l'Exécutif prépare une politique sur le renouvellement des soins primaires qui établira des principes pertinents à la pratique en milieu rural. Surveillez le site web où l'on affichera une version préliminaire de la politique. La politique sera prête pour approbation finale au cours notre AGA à Kelowna.

Participez!

Le comité des candidatures cherche des membres intéressés à siéger à nos comités régionaux, à nos comités permanents et à l'Exécutif. Si vous êtes intéressés, veuillez communiquer avec le Dr Peter Hutten-Czapski, président du Comité des mises en candidatures, à l'adresse phc@srpc.ca.

Kelowna (C.-B.), Avril 2003

Veillez réserver sur votre calendrier la période du 24 au 27 avril 2003 -- au cours de laquelle se tiendra le cours annuel sur la médecine en milieu rural et éloigné de la SMRC, à Kelowna (C.-B.). Vous aurez la chance de rencontrer des collègues de toutes les régions du pays et d'assister à des ateliers et des exposés d'EMC pertinents pour le milieu rural tout en vous détendant dans une région magnifique du Canada.

Correspondance : Dr Jill Konkin; jillk@telusplanet.net

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Dialysis, diabetes and Canada's Aboriginal people

Michael E. Green, Bc, MD, MPH, CCFP

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In this issue Salvalaggio and colleagues 1 present a qualitative study of the impact of renal failure and dialysis on patients of Aboriginal descent in Northwestern Ontario (see page 19). As a family physician practising in a predominantly Aboriginal setting, my own experiences with patients echo the sentiments expressed in the study. Many patients with end-stage renal disease (ESRD) choose to deal with the rigours and complications of attempting peritoneal dialysis in difficult settings -- even when it is failing and hemodialysis would be superior -- rather than leave their homes in some of Ontario's most remote locations. I have seen them attempt dialysis while at hunting camps and tolerate the complications of wildly fluctuating blood sugar levels, ranging from rapidly progressing visual loss to hypoglycemic seizures. I have seen them quietly accept the reality of increasing health and lifestyle impairments, all to avoid the most dreaded outcome of all -- the loss of family, friends, community, culture and traditions that comes with relocation "down south."

Many patients are willing to confront mortality at home rather than endure the emptiness of a life alone in a setting as unfamiliar to them as Africa would be to most Canadians. Imagine yourself being diagnosed with an incurable deadly illness that requires medical intervention several times a week to sustain your life. Imagine then being told your only hope of receiving such treatment requires you to move hundreds of miles away from home, to a place where you cannot even speak your own language and be understood. And all this is forever -- with very limited options for trips home to visit. Unfortunately, this is the reality facing more and more Aboriginal people every day. Currently, in the Cree population of the Ontario coast of James Bay, where I work, the rates of patients with ESRD who require dialysis are 3.2 times higher than the national average. These rates are expected to rise significantly as the current epidemic of type 2 diabetes and its complications

among Aboriginal Canadians continues its unrelenting course. 3,4 This is particularly so because Aboriginal patients with diabetes are more likely to develop nephropathy and ESRD than their non-native counterparts, and those with ESRD are much more likely (relative risk = 6.5) than non-Aboriginal patients to require dialysis.³

With 50% of Canada's Aboriginal people living on reserves, most of which are in rural and remote areas, this increase will be felt disproportionately in rural communities.

Rural physicians who serve Aboriginal communities such as ours are already being required to manage more and more patients with ESRD, to the point where our locum physicians are suggesting we create a "Dialysis for Dummies" handbook to assist them in their work. Improved outreach and satellite dialysis services for Aboriginal people are urgently required. Despite the millions of dollars that these programs will cost, the demand for even more hemodialysis satellite services and the strains on existing sites will grow unchecked if significant resources are not allocated to improve programs for both the primary prevention of diabetes and the secondary prevention of complications through improved patient management. Current programs, such as the national Aboriginal Diabetes Initiative,⁵ are struggling to provide even basic education in diabetes in many communities, as formulaic budget allocation processes often fail to consider the high cost of delivering services to rural and remote communities. In addition, cutbacks in other government programs, such as physical education programs in schools, makes the prevention of diabetes and obesity through promotion of healthy lifestyles more difficult. Comprehensive community-based programs that are sensitive to the unique culture of Canada's First Nations (for example, those in Sandy Lake and Kahnawake^{6,7}) can achieve results, but they require extensive consultations with community members, involvement of the community in program development and implementation and outreach through community agencies (e.g., local school boards and health authorities). Such programs take time, effort and money to implement, but in my view, failure to do so on a broader basis will result in much higher personal and societal costs.

Competing interests: None declared.

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Perspectives on health: experiences
of First Nations dialysis patients relocated from remote
communities for treatment

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Len Kelly, MD, CCFP, MCISc, FCFP
Bruce Minore, HBA, MA, PhD

Objective: To explore the experience of health and illness among First Nations dialysis patients. **Design:** Qualitative descriptive study using semi-structured interviews. **Setting:** Thunder Bay Regional Hospital Renal Service, Thunder Bay, Ont. **Participants:** Twelve self-declared First Nations patients receiving either peritoneal dialysis or hemodialysis. The Nishnawbe–Aski Nation participated in the development, review, and dissemination of the study. **Methods:** Interviews were conducted with participants in either English or Oji–Cree, with an interpreter on hand where necessary. All interviews were audiotaped and transcribed verbatim. Transcripts were subjected to immersion/crystallization analysis by 3 researchers. Theoretical saturation led to the development of 4 major themes. Research findings were represented to participants and community partners. **Results:** Four major themes related to the dialysis experience emerged: 1) somatic issues, 2) loss of independence, 3) impact on relationships, and 4) psychological adjustment. **Conclusion:** First Nations dialysis patients face symptomatic, functional, interpersonal and psychological challenges; becoming sick and receiving treatment is a multidimensional experience.

Objectif : Étudier l'expérience de la santé et de la maladie chez des membres des Premières nations en dialyse. **Conception :** Étude descriptive qualitative faisant appel à des entrevues semi- structurées. **Contexte :** Service de dialyse de l'Hôpital régional de Thunder Bay, Thunder Bay (Ont.). **Participants :** Douze personnes se déclarant membres des Premières nations et recevant un traitement par dialyse péritonéale ou par hémodialyse. La Nation Nishnawbe– Aski a participé à

l'élaboration, à l'examen et à la diffusion de l'étude.

Méthodes : On a interviewé les participants en anglais ou en oji-cri et un interprète était disponible au besoin. Toutes les entrevues ont été enregistrées sur bande sonore et transcrites textuellement. Trois chercheurs ont soumis les comptes rendus à des analyses par immersion-cristallisation. Quatre grands thèmes se sont dégagés de la saturation théorique. Les résultats de recherche ont été présentés aux participants et aux partenaires de la communauté. Résultats : Il est ressorti quatre grands thèmes relatifs à l'expérience de la dialyse : 1) les aspects somatiques; 2) la perte d'autonomie; 3) les conséquences sur les relations; 4) l'adaptation psychologique. Conclusion : Les membres des Premières nations qui sont en dialyse sont confrontés à des défis sur le plan symptomatique, fonctionnel, interpersonnel et psychologique. L'apparition de la maladie et le traitement constituent une expérience multidimensionnelle.

Introduction

Canada's First Nations population has 3 times^{1–3} the rate of end-stage renal disease (ESRD) than the non-aboriginal population. The prevalence of this chronic illness reflects higher rates of type 2 diabetes⁴ and glomerulonephritis.⁵ Unless a donor kidney for renal transplant is available, ESRD requires chronic renal dialysis. Although continuous ambulatory peritoneal dialysis is an option for some individuals, it requires medical support, extensive patient education and commitment, as well as adequate community water supplies and sanitation facilities. Such conditions are often unavailable in smaller, more remote communities. Hemodialysis requires additional resources, such as trained personnel and dialysis machines. As a result, First Nations dialysis patients often have very little choice but to leave their communities and relocate to larger, urban centres. The authors of this study wanted to understand this experience.

Several studies have addressed the experience of illness of First Nations dialysis patients through their exploration of decision-making issues⁶ and the impact of relocation.⁷ It has been suggested that isolation, unemployment and lack of familiarity with the health care system play larger roles for First Nations patients than for the general population.^{8,9} Divergent concepts of health and patient priorities can make cross-cultural challenges interesting; cultural context and rules of behaviour may not be explicit.¹⁰ Language barriers and time constraints may further hamper cross-cultural understanding.^{11–13}

Clare Brant, a Mohawk psychiatrist, outlined a set of Native rules of behaviour,

including the principles of non-interference, noncompetitiveness, emotional restraint, sharing, teaching by modelling, altered protocol, and unique concepts of time.¹⁰ Other clinicians have described altered communication styles with First Nations patients; patience, comfort with silence, listening, storytelling and humour are among the elements often encountered.¹⁴ Recent publications addressing the ethics of research among First Nations emphasize the need for community participation. Externally driven, quantitative survey-type methodology is considered unacceptable.^{15–17} In this context, it was felt that a qualitative descriptive study would best document First Nations dialysis patients' experience.

Objective

The objective of this qualitative study was to explore the experience of health and illness among First Nations dialysis patients in Northwestern Ontario.

Methods

Design

Qualitative research methodology was used to explore participants' attitudes and experiences in depth. More familiar quantitative approaches (e.g., surveys) are recognized as being inadequate for First Nations research.¹⁵ A series of questions for use in semi-structured interviews were developed in consultation with the health office of the Nishnawbe–Aski Nation (NAN). This Ontario nonprofit corporation is mandated by the Chiefs of 46 First Nations communities across Northern Ontario to represent their communities' health, economic and social interests. The questions dealt with the meaning, causes and consequences of health and illness, as well as the actual dialysis experience. The questions were reviewed by research peers, several First Nations interpreters, and the Lakehead University Department of Native Studies in Thunder Bay, Ont. Translations into Oji–Cree were agreed upon by 2 interpreters.

The study was approved by the Thunder Bay Regional Hospital Research Ethics Committee as well as by the Nishnawbe–Aski Nation.

Data gathering

Patients eligible for the study included all self-declared First Nations individuals receiving either peritoneal dialysis or hemodialysis through the Thunder Bay

Regional Hospital Renal Service. Interview subjects were chosen based on their likely willingness to share their stories. Permission to approach potential participants was obtained by their nurses. The research study was described, and informed written consent was obtained. Confidential one-hour interviews were conducted by one of the authors (G.S.) on the dialysis unit or in another venue, with or without an interpreter, according to participant preference. Interviews were audio-taped and transcribed verbatim, and were supplemented by field notes.

Data analysis

The immersion/crystallization method was chosen for data analysis. This qualitative approach consists of repeated cycles of "prolonged immersion into and experience of the text and then emergence, after concerned reflection, with an intuitive crystallization of the data."¹⁸ Analysis occurred during and after the data collection stage using field notes as well as QSR NUD*IST qualitative analysis software (QSR International).

Validity of the data set and subsequent analysis was tested in a number of ways. The interviewer did not speak Oji-Cree; translated interviews were reviewed and verified by a second interpreter. Themes that evolved early on in the analytical process were tested in subsequent interviews with probe questions. Confirming and deconfirming cases were sought until the interview content did not appear to yield any new thematic material. Triangulation of analysis of each interview with 2 other researchers limited the effect of personal bias by the interviewer. Finally, dissemination to research participants, the renal service, and NAN allowed for "member checking," a qualitative validity technique.

Participants

Twelve dialysis patients were interviewed over a 5-month period. Eight interviews were conducted in English and 4 in Oji-Cree. Participants ranged in age from 19 to 73 years. There were 3 men and 9 women. Communities of origin were widespread throughout Northwestern Ontario. Seven individuals identified communities of origin accessible by air only. Disease processes leading to dialysis were also variable; the majority had type 2 diabetes. Participants had spent anywhere from 6 months to more than 5 years on dialysis. Three people were on peritoneal dialysis, and 9 were on hemodialysis at the time of the interview.

Results

Dialysis had a tremendous impact on many facets of the participants' lives. Four major themes emerged as essential interdependent elements of the experience, and indeed contributed to one another: 1) somatic issues, 2) loss of independence, 3) impact on relationships, and 4) psychological adjustment.

Somatic issues

Dialysis patients disclosed significant physical symptoms. These in turn had an impact on the quality of life of participants. Many individuals identified weakness and fatigue as a major adverse effect of treatment. Patients described increased difficulty carrying out activities of daily living.

"Being sick to me is if I'm flat on my back and I can't get up."

A number of participants felt that the frequent experience of pain during the course of their illness and treatment altered their ability to carry out formerly easy tasks and to enjoy life. Some feared further pain and its consequences.

"I'm so sick and tired of being so sore . . ."

Nausea, loss of appetite and dietary restriction reduced the enjoyment of eating. Necessary diet modifications were perceived to be restrictive, and noncompliance resulted in nausea and discomfort. Other physical symptoms surfaced (e.g., shortness of breath, body swelling, abnormal smells or tastes).

"Loss of independence

A loss of independence was universally described. Function was very important to participants. Self-sufficiency was often threatened; participants felt that they were creating a burden for others.

"Being sick is when you can't even help yourself any more. . . . You can't wash your clothes or clean up your house and you don't have the energy to do anything. That's what sick is."

Limitation of physical mobility figured prominently. Patients felt that their bodies had lost strength and would not allow them to carry out their premorbid activities in the same way.

"It's slowly failing that's all. I used to be able to walk about from [the other end of town] to here . . . I still can do it, but I gotta take a lot of sit downs to let [my] legs rest."

While a lack of activity was equated with illness, maintenance of activity, on the other hand, was perceived to be beneficial to health.

"When I feel better a little bit . . . I always try to take a walk. Walk. That's the only way I'm supposed to move around. If I don't do it, I'll just be stuck. . . . like they say . . . our blood doesn't circulate when we stop. Only when we're moving, that's the only time it moves. When we stop, everything stops."

Occupational independence was highly treasured and greatly missed. Patients missed being able to work and contribute to their communities and families. Many had attempted to keep as busy as possible but resented the loss of a defined role.

Economic loss resulted from unemployment, physical disability and relocation. A low income resulted in several concerns related to housing; participants had to deal with limited storage space, loss of privacy and poor security. Individuals found it difficult to live within their budgetary constraints.

"I loved to work. I was working before . . . before I moved here. . . . at least I didn't have to go on welfare [laughing]. . . . I can't get anything . . . buy anything. . . . I used to buy [my daughter] lots of things but now I have to watch our budget."

Limited income intensified many patients' separation from their home communities. Travel in the North is expensive, and patients were unable to afford regular visits with family and friends.

"They're being pulled out from their home without any assistance and they have to try and adjust, especially the ones that haven't . . . that's never been . . . away from home before . . . a lot of people can't go home because they can't afford it."

Dialysis also limited recreational pursuits. Premorbid recreation typically consisted of outdoor, land-based activities such as hunting, fishing and camping. Many fond memories of a more peaceful, quiet time surfaced. Participants felt that they could not enjoy such activities to the same extent in the urban environment.

"Because I like to sit . . . sit out there in the bush. Think. Relax . . . without any

noise."

These traditional recreational activities were associated with social well-being and felt to be a consequence of good health. "I like when my kids spend time with me, do things for me. It makes me alive. Or if we go picking somewhere in the bush. I feel better. A lot better. Or if there's camping. I like it. I miss all those things."

Impact on relationships

While participants emphasized the importance of individual function, they also valued their relationships. Dialysis not only led to physical separation from friends and family but also changed patients' ability to socialize and live up to former roles within these relationships.

Participants with children felt lonely without them; when they were able to visit, the hardships of dialysis were minimized and quality of life improved.

"When my kids are in town I feel . . . better. I can feel myself."

Children were equally affected by their parents' illness. Participants worried about the ability of their children to cope on their own. Others felt that some role reversal had taken place, and that children were now taking care of their parents.

Participants felt distanced from other family members also and believed that their presence, especially at the time of relocation, would be helpful. Some worried about their inability to support elderly parents and partners.

"My husband is not well either . . . I worry about him too. Right now, it's just the two of us at home."

Friendships in home communities were recalled. Laughter and play were common ingredients in these friendships and allowed patients to better cope with illness and remain connected to the community.

"I'd walk down to my friend's place. . . . Maybe we'd go play cards. . . . We used to have a lot of fun. . . . We used to go to powwows. We used to go to powwow trails."

Some patients experienced alienation from their former friends. They felt stigmatized by their illness.

"I don't have any friends [laughing] any more. I used to have . . . lots of friends. But I guess they're . . . kind of scared of this disease or something."

Psychological adjustment

Dialysis patients experienced a wide variety of psychological changes as well, as might be expected with a population at different stages of change. They described emotional reactions consistent with grief and loss -- sadness, boredom and depression.

"At the beginning it was okay. It didn't bother me. Now it's . . . I'm getting down, down, down."

Conversely, others reacted with denial. Noncompliance with treatment occasionally resulted.

Although withdrawal behaviour was prevalent, many patients reacted with anger and frustration. Occasionally this anger translated itself into blame.

"I blame my daughter . . . she . . . let [the doctor] put that catheter on. . . . I didn't want it in. I told them 'I don't want it in right now. . . . When I'm good and ready, I'll let you know.' "

Participants endured a lot of uncertainty. They experienced worrisome physical symptoms, underwent numerous diagnostic investigations and travelled great distances with many unanswered questions. Participants struggled with a loss of autonomy over treatment decisions.

"All my friends were asking me, 'What's wrong with you? Look at your face! [It] is all swollen! Look at your hands! Look at your legs. Everything is all swollen. What are they doing to you?' I said, 'I don't know what the white people are doing to me in Thunder Bay. They're drowning me with their water.' "

Mortality was another issue. The onset of ESRD and the need for life support from dialysis reinforced the notion that death could come with very little warning.

". . . they [i.e., death] might call on me today, maybe in an hour or something you know? And I don't like to leave when I have bitter feelings, or an angry feeling or .

. . you know?"

Coping strategies were developed to manage these feelings of uncertainty and loss. Many participants indicated that happiness was essential to health. Humour and laughter were used to tell stories during the interviews. Visits with friends permitted the sharing of happy memories. Many believed in the importance of a positive focus. Gratitude and hope helped alleviate the suffering.

"In a way, I'm luckier than some of them. . . . When I start worrying about how I am, I look at other people. I see them with their feet off, or almost right up to their waist with no legs and I think I'm luckier."

For some, this optimism encouraged active participation in their care, through better lifestyle management or the assumption of nursing and housekeeping tasks.

Several individuals acknowledged that spirituality played a role in their lives. For some, traditional ways were central to wellness. One participant felt that pride in her culture and language and faith in her people's medicines was the only way to get through her illness. For another, a Christian philosophy prevailed, and faith in God was paramount to emotional survival.

"I just about died a few times. God's . . . looked after me and He pulled me through."

Discussion

The authors came away with a better understanding of the dialysis experience of a First Nations patient, including, but not limited to, physical symptoms, loss of independence, altered interactions with family and friends, and psychological adaptation to illness. Although many of our findings might be expected intuitively, the experiences of these patients have not been clearly documented in the past. It is hoped that our results can clarify the important elements of the dialysis experience for both patients and their caregivers.

Our findings are consistent with those of similar studies. Wilson and colleagues^{>7} examined the effects of relocation for dialysis in the Moose Factory Zone; subjects expressed concerns about increased expenses, housing inadequacies, family separation and a lack of control over health care decisions. Kaufert and coworkers^{>6} found that First Nations ESRD patients experienced uncertainty about

their diagnosis, loss of freedom and an inability to contribute to their communities. Hospitalized First Nations individuals interviewed in another Thunder Bay study identified physical, emotional and functional facets of health, illness and healing (Homeniuk S, Knutson G, Wrigley M. Aboriginal patients' views of health and nursing. Unpublished observations, 1996). Physical and social limitations, uncertainty about the future and depression are also prominent themes in studies involving ESRD patients of non-First Nations descent. However, the latter group preferred problem-solving as opposed to affective measures for use as coping strategies.^{19,20} Our study's findings are unique in their emphasis on familial separation and functional loss -- particularly physical mobility and untoward physical symptoms.

Participants described a range of internal reactions and subsequent adjustments to their situation. Traditional spirituality played a role for only some patients; this finding may reflect the variable experience of Western acculturation and traditional cultural preservation in First Nations communities.²¹ Given this diversity, patient perspectives on these matters must be approached within a patient-centred paradigm.

The study findings also have several administrative implications. A greater focus on occupational therapy and physiotherapy, with particular attention to physical mobility, could help to alleviate functional loss. Recreational therapy programs could provide opportunities to enjoy premorbid, land-based activities in a new setting. Access to family medicine, social work and cultural liaison services -- before, during and after the transition to an urban setting -- would help to ensure that individual needs are met in other areas. Financial support for housing and travel arrangements could significantly decrease the impact of relocation. The notion of satellite units closer to home communities has also been entertained as a way to minimize this separation. Finally, patient-driven education and support groups have been advocated in similar qualitative studies and could serve to improve overall quality of life.^{22,23}

Limitations

The fatigue and discomfort caused by ESRD and the noise and distractions of dialysis treatments may have limited the responses of some participants. Cultural limitations were also present. A Western study method was used by a non-First Nations research team. Researchers had to be mindful of cross-cultural differences in ethical rules while conducting field work. Where added language barriers existed, an interpreter acted as an intermediary. Interpreters served not only as

translators, but also as culture brokers, informants and patient advocates.¹¹ Attempts to minimize these limitations included a literature review of cross-cultural communication issues, frequent assessment of interview technique, the use of open-ended questions, a relaxed time frame, regular debriefing with interpreters and advice and participation from First Nations individuals and NAN representatives.

Areas for further study

An exploration of function and mobility might lend greater insight into the effects of functional loss. Patient recommendations for improvements to their care remain conjecture at present and could be elicited. Focus groups or "sharing circles" might be an ideal setting in which to explore the experience of dialysis from the perspective of patients and family and community members. The relatively undocumented nature of urban Aboriginal communities might also be discussed in this way in an attempt to help ESRD patients from rural areas adjust.

Conclusions

The richness of the stories we encountered suggests that health and illness encompass a breadth of experience much greater than that of diagnosis and treatment of disease. Acknowledging the symptomatic, functional, interpersonal and psychological challenges faced by First Nations dialysis patients may allow both clinicians and patients to better understand the experience.

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Incidence of falls by rural elders compared with their urban counterparts

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Purpose: The primary purpose of this study was to investigate how the incidence of falling by rural people over the age of 65 differed from those in an urban community. Secondary outcomes were the Modified Falls-Efficacy Scale (MFES), Activities-specific Balance Confidence (ABC) Scale, and the Timed Up & Go Test (TUG).

Methods: A total of 115 subjects completed questionnaires at 2 separate sites, one urban, one rural. Forty rural subjects (age 75.5 ± 7.7 , mean \pm standard deviation), and 75 urban subjects (age 76.0 ± 7.3) were recruited.

Results: Twelve rural subjects (30.0%) reported at least 1 fall in the previous 12 months, which was not statistically different from the 22 urban subjects (29.3%) who fell during the same time period. Neither the MFES (rural 8.94 ± 1.99 , urban 8.86 ± 1.82), nor ABC (rural 81.7 ± 23.7 , urban 77.4 ± 23.7), nor TUG (time in seconds; rural 12.21 ± 4.95 , urban 13.25 ± 5.65), were found to be statistically different between the 2 groups. The ABC appeared to be more sensitive to the fear of falling in a rural, ambulatory population compared to the MFES. The TUG was predictive of falling if > 15 seconds.

Conclusions: Falls by elderly people in rural areas are as prevalent as falls by their urban counterparts. However, it is not known whether rural elders have different risk factors from urban elders that may combine to give this same incidence rate.

Objet : Cette étude visait principalement à déterminer la différence entre l'incidence

des chutes en milieu rural et en milieu urbain chez les personnes de plus de 65 ans. L'échelle modifiée chute et efficacité (MFES -- Modified Falls-Efficacy Scale), l'échelle de confiance de l'équilibre spécifique aux activités (ABC -- Activities-specific Balance Confidence) et le test chronométré lever et marcher (TUG -- Timed Up & Go Test) ont constitué les résultats secondaires.

Méthodes : Au total, 115 sujets ont rempli des questionnaires à deux sites, soit un en milieu urbain et un autre milieu rural. On a recruté 40 sujets en milieu rural (âgés de $75,5 \pm 7,7$ ans, âge moyen \pm écart type) et 75 sujets en milieu urbain (âgés de $76,0 \pm 7,3$ ans).

Résultats : Douze sujets du milieu rural (30,0 %) ont déclaré être tombés au moins une fois au cours des 12 mois précédents, ce qui ne présentait aucune différence statistique par rapport aux 22 sujets du milieu urbain (29,3 %) ayant fait une chute au cours de la même période. On n'a constaté aucune différence statistique entre les deux groupes en ce qui concerne les échelles MFES (ruraux $8,94 \pm 1,99$; urbains, $8,86 \pm 1,82$) et ABC (ruraux $81,7 \pm 23,7$; urbains, $77,4 \pm 23,7$), ou les résultats du test TUG (durée en secondes; ruraux, $12,21 \pm 4,95$; urbains, $13,25 \pm 5,65$). L'échelle ABC semblait plus sensible que l'échelle MFES pour repérer la crainte de tomber dans une population ambulatoire rurale. Le test TUG était prédicteur d'une chute si le résultat dépassait 15 secondes.

Conclusions : Les chutes chez les personnes âgées sont aussi prévalentes en milieu rural qu'en milieu urbain. On ne sait toutefois pas si les personnes âgées en milieu rural présentent des facteurs de risque différents de celles du milieu urbain qui peuvent se conjuguer pour produire le même taux d'incidence.

Introduction

Falls by older people have been shown to result in significant morbidity and mortality. These accidental falls are quite common in the elderly population. The existing literature reports that approximately 30% of all ambulatory people over 65 years of age suffer at least one fall per year, with the rate increasing with age.^{1–3} However, incidence rates have not been specifically investigated for falls in rural areas. There may exist differences in lifestyles between older people living in rural communities and those in tertiary centres where this research commonly takes place. Medical consequences of falls may range from no noticeable lesions or minor soft-tissue injuries to fractures, disability and, rarely, death. In addition, the psychological post-fall effects and staggering health care costs^{4–6} from falling

provide extra incentive to develop an appropriate approach to dealing with falls in all communities. Roughly one-quarter of all Canadians live in rural areas. If the incidence of falls in these rural areas is as high as reported in major centres in Canada and the United States, even a small decrease in the rate of falls could result in significant benefits, both clinical and economic.

Literature specifically concerned with falls by older people who live in rural communities appears to be limited to just 1 study in North America. In this 1996 study 16 of 31 subjects reported falling in the previous year.⁷ This incidence rate of just over 50% is much higher than the usual 30% reported in urban studies, and is cause for concern. The alarmingly high rate may have simply been a result of a self-reporting bias on the part of the subjects or because of the small sample size. Unfortunately, no parallel data were collected concerning what the results would be of applying similar methodologies to urban controls, and thus no statistical conclusions could be drawn. With no other published information concerning falls by rural elders, it appears they may have some unique risk factors toward falling.

Intrinsic or extrinsic factors

Risk factors for falls may be divided into intrinsic or extrinsic factors.² Intrinsic factors are those individual characteristics of the patient that may be due to age (e.g., poor visual acuity), disease or medications. Extrinsic factors are those in the home surroundings (e.g., poor household lighting) or community environment. While these risk factors may not be entirely controllable by the person at risk, identifying both intrinsic and extrinsic factors may allow anticipation of difficulty and could result in activity or environmental modification to better prepare for at-risk situations.

There is great difficulty, however, in determining the extent of the interaction of intrinsic or extrinsic factors for any one fall; that is, it is difficult to know where to lay the "blame." A study⁸ of 162 recent fallers asked each person to what extent they attributed their fall to their "own limitations," or their "surroundings." People with poorer self-rated health, dexterity difficulties, and those living in an apartment were associated with attributing their fall to their own limitations. Those with higher self-rated health and those who fell outdoors were more likely to attribute their fall to the external surroundings.

People's attributions about falls may have important consequences. Firstly, if rural elders assign the blame for their falls differently from their urban counterparts, examining attributions about falls may in fact provide some insight into

investigating any unique rural risk factors. Secondly, some attributions may provide the patient with a sense that the fall was caused by a random occurrence that may be prevented in the future. Conversely, an attribution that the fall was caused by some permanent, intrinsic factor could lead to feelings of hopelessness and actually enhance someone's fear of falling.⁸ Identification of these intrinsic factors allows for possible remedial action that may be very effective at preventing falls.

Fear of falling

Fear of falling may also have consequences for rural populations. Fear of falling has been shown to be correlated with changes in functioning and activity levels.⁹ Increased physical activity has been associated with both an increased and a decreased risk of suffering a serious injury from a fall.^{3,9,10} A decreased activity level is also considered to be a risk factor for falling,¹¹ as well as an increasing risk of injurious falls.¹² Recently, exercise interventions have been shown to decrease the incidence of falls.^{13,14} To date, there are no existing studies documenting any information regarding the fear of falling or falls self-efficacy (i.e., an individual's perception of capabilities and confidence in regard to falling) in rural areas, although this may have interesting implications considering the potential difference in activity levels and demands of living of those in rural areas.

Goal of study

The aim of this study was to determine the incidence of falls and associated factors among older, community-living adults in a rural area compared to those in an urban setting. Secondary measures included 2 measures of falls self-efficacy (the Modified Falls-Efficacy Scale [MFES] and the Activities-specific Balance Confidence [ABC] Scale), the Timed Up & Go (TUG) Test, and the attempt to gather qualitative information surrounding specific fall events.

Similar to the definition used by Baldwin and colleagues,⁷ a fall is considered to be any event in which the person comes to rest inadvertently on the ground or other lower level (e.g., stairs, a coffee table, pile of snow), as long as the action is not the consequence of a violent blow or assault, loss of consciousness, onset of paralysis or from an epileptic seizure. The term "faller" will be used to denote someone who has had at least one fall in the previous 12 months; the term is not intended to be a label or a designation for any person or group of people.

Methods

Subjects

A total of 121 people were approached to participate voluntarily in this study at 2 independent sites -- Blenheim, Ont., a rural community of approximately 4500 people (the rural medical practice) and London, Ont., (pop. 350 000) (the urban medical practice). These 2 communities are both in Southwestern Ontario and are roughly 90 minutes apart by car. All data were collected simultaneously over the course of 3 weeks during the summer of 2000.

The people who were asked to volunteer in the study were the first 121 consecutive patients over 65 years of age who visited their family doctor for reasons other than a recent fall. No subjects from nursing homes were consulted, and patients cognitively impaired beyond the ability needed to complete the questionnaire were excluded.

Instrumentation

The first part of the study consisted of a questionnaire that was designed to gather information regarding demographics, self-rated health on a scale of zero (poorest health) to 10 (completely healthy), most recent eye examinations, use of walking aids, alcohol consumption, current medications, falls-specific situations for those reporting falls, specific exercise routines or daily activities, and 2 measures of falls self-efficacy.

The 2 self-efficacy scales used to determine the degree of fear of falling were the MFES¹⁵ and the ABC Scale.¹⁶ The MFES is a 14-item scale that was expanded from the original 10-item Falls Efficacy Scale (FES).¹⁷ The FES measures fear almost exclusively using indoor activities, which may negate any differences experienced by those in a rural setting. The MFES has 4 extra questions involving outdoor activities, which may provide a more useful measure of the fear of falling in an ambulatory population. The ABC Scale was developed to have a wider continuum of activity difficulty within its 16 questions, and thus may be a more suitable measure of balance confidence in highly functioning elders.¹⁶ The MFES measures falls-efficacy from zero (not at all confident) to 10 (completely confident), whereas the ABC expresses confidence as a percentage from 0% (no confidence) to 100% (complete confidence).

The TUG Test involves a patient getting up from an armchair, walking 3 metres,

turning around, walking back to the armchair, and sitting down.¹⁸ The event is timed with a stopwatch and has been shown to be a useful predictor of falling in older people.¹⁹ Patients are instructed to walk at a safe, comfortable speed, and the time to complete the task is recorded in seconds. In this study identical chairs were used at both sites. The chairs had seats 42.0 cm high, 47.5 cm wide, and arm supports 64.5 cm from the ground.

People who reported a fall in the last 12 months were asked to report if they had been able to get up without help, the extent of any injuries, any medical consequences, their attributions surrounding the fall, where the fall occurred and, finally, how many falls they have had in the past 12 months. To determine a person's attributions regarding the most recent fall, subjects were asked to rank the reason for the fall on a scale from zero to 10 where zero indicated the fall was caused entirely by their own personal limitations and 10 indicated the fall was entirely due to external surroundings. A minor injury was described as "cuts or bruises," whereas a major injury was considered to be "broken bones or a head injury."

Study protocol

Upon the patient's arrival at the medical office, his or her age was checked in the medical records to determine eligibility. The patient was then invited to an examining room, where a staff member, but not the doctor, briefly explained that participation in the study consisted of a questionnaire followed by the TUG Test. It was stressed at this time that the response sheet would be coded with a number to assure the patient's confidentiality and that the physical answer sheets would be destroyed once the responses were entered into a computer. A consent form detailing all of this information was also provided. The signed consent form was retained in the medical chart, but the questionnaires were not.

The subject was then left alone to complete the questionnaire. Those requesting help for reasons such as forgotten eyeglasses had the questionnaire read to them, but answered the questions on their own. Upon completion of the questionnaire, the subject was walked to the chair for the TUG Test.

The entire procedure rarely exceeded 20 minutes.

Statistical analysis

Independent sample *t*-tests were used to determine statistical differences in continuous variables between the rural and urban populations. The relative risk (RR) of falling for each discrete variable was calculated along with the confidence interval (CI) using cross tabulations. These RRs for falling were calculated for the entire population and for the urban and rural subsets. The 0.05 level was adopted as the maximum probability value denoting a statistically significant difference. To simplify analyses and to calculate RRs, some continuous variables were grouped at extreme ends of the scales. The MFES scores were arbitrarily called "low" if the score was less than 6 and called "high" if the score was greater than 9. Likewise, a "low" ABC score was considered less than 60% and "high" was greater than 90%. The TUG score was referred to as a "low" score if it was less than 12 seconds and "high" if the subject took longer than 15 seconds to complete the task. A subject was said to have a "low" self-rated health if they ranked themselves lower than 5; a score above 8 was called "high."

Results

A total of 121 consecutive people over the age of 65 were invited to participate in the study. Four people refused participation from the urban medical practice, and 2 from the rural practice; the most common reason was lack of time.

As part of the questionnaire, all subjects were asked if they were currently living in a rural or urban community. Nine subjects from the urban medical practice designated themselves as living in a rural area, whereas 26 of the subjects from the rural medical practice were actually from urban communities. Thus, a total of 75 subjects were classified as urban (from this point on referred to as "urban"), and 40 subjects were classified as rural ("rural"). Demographic information for the rural and urban groups are shown in [Table 1](#). The small age difference between the urban and rural groups was not statistically significant. Forty-one of 75 urban subjects were female (54.7%), as opposed to 17 of 40 rural subjects (42.5%). Ninety-five percent of rural subjects were living in a house, whereas only 66.7% of urban subjects were living in a house. Almost twice as many urban subjects were living alone (39.2% urban vs. 20.0% rural).

Characteristics of health for both groups are shown in [Table 2](#). The incidence of falls was 29.3% in the urban group and 30.0% in the rural group; these rates were not statistically different.

A less often employed measure of falling reported in the literature is the fall rate,

calculated as the total number of falls per 100 person-years. The urban group reported 53 total falls for a fall rate of 71 falls per 100 person-years. There were 20 falls in the rural group for a fall rate of 50 falls per 100 person-years. The fall rate calculated here is considered less reliable due to the reporting methodology, because a person is more likely to remember if they have had a fall in the past year, but not necessarily how many falls they have had in the same time period.

Independent sample *t*-tests revealed no differences in self-rated health, time since last eye exam, nocturia frequency, MFES, ABC, or TUG scores between groups. The use of walking aids, amount of alcohol consumption and medication profile were also remarkably similar between the groups. The majority of study subjects used no walking aids (75.7% in the urban group, 82.5% rural), and did not consume any alcohol (66.7% urban, 55.0% rural). More than half of the urban subjects partook in some type of regular exercise program (62.7%), but less than half of the rural subjects did the same (45.0%).

RR analysis for falls in the urban subjects found that a "high TUG" (RR = 6.9, 95% CI 2.15–22.28) and a "low ABC" score (RR = 4.5, 95% CI 1.42–14.57) were associated with an increased risk of falling; a "high ABC" (RR = 0.3, 95% CI 0.11–0.99) was associated with a decreased risk of falling ([Table 3](#)). None of the measured variables attained statistical significance within the rural group.

Characteristics of the falls by the 22 urban subjects and 12 rural subjects who fell are summarized in [Table 4](#). A larger percentage of rural fallers fell outside than did urban fallers, and on average laid less blame on their surroundings (lower attribution score) than their urban counterparts. However, none of the differences of the fall characteristics were statistically significant between urban and rural groups.

Discussion

The incidences of falling found in this study were 29.3% and 30.0% for urban and rural centres, respectively.

These rates are believable for a number of reasons. First, the rate of falling in the urban group was identical to the commonly reported incidence of falling of 30% as determined in urban settings.^{1–3} Because the urban and rural rates of falling, found to be the same, were calculated using the same questions as part of the same package at the identical time, any measurement or self-reporting biases should

cancel out. Indeed, a rural incidence rate of falling of around 30% is much more favourable than the 52% calculated in the only other North American study specifically directed at falls by the elderly in a rural area.⁷ The larger sample size of the rural group and the large urban control group used in the current study strengthens the results found here.

One potential limitation of this study was the reliance on people to self-designate themselves as either rural or urban subjects regardless of their medical practice, thus allowing "rural" patients to attend the urban medical practice and vice versa. While this may confound the analysis, it tends to echo the difficulty in separating rural and urban Canada from a research perspective by highlighting the various definitions of "rural area." Other studies on falling reported to be from rural areas actually examined smaller cities of 9000²⁰ and 13 500 people.²¹ The Canadian census defines rural as less than 1000 people; the United States census extends the definition to less than 2500. Future rural medical research must accommodate for these differing definitions.

The implications of the incidence rates being similar in both the urban and rural areas needs some study. It may be that the incidence of falling by those over 65 in rural areas is the same as those in urban areas simply because they share the same risk factors and fall for the same reasons in both the city and countryside. If this is the case, fall-prevention programs could be prepared and delivered in the rural setting in a similar fashion to those programs used in larger centres. Future studies may, however, find that although the rate of falling in rural areas is the same as urban centres, rural people have different and unique factors that combine in a different manner to add up to the same incidence rate.

Calculating RR ratios for each of the urban and rural groups provided little conclusive information concerning risk factors or indicators of falling. The relatively small sample of 40 rural subjects, of whom 12 fell, failed to yield significant RR ratios for any of the measured variables. The urban data, drawn from 75 subjects, indicated that those with a TUG score in excess of 15 seconds or an ABC score below 60% were more susceptible to falling, whereas an ABC score greater than 90% indicated the person was less likely to have suffered a fall in the previous year. Due to the nature of this study, it cannot be concluded whether fallers had high TUG times or low ABC scores before they fell, or if they had modified their activity levels and developed an increased fear of falling since their fall.

The demographic survey revealed that almost all rural subjects were living in

private houses, and were only half as likely as urban counterparts to be living alone. This is likely attributable to a lower proportion of urban subjects who are married. While not directly studied here, independent rural living may present important implications with regard to immediate post-fall consequences.

Roughly one-quarter of both urban and rural subjects reported that they were unable to get up by themselves after their most recent fall. This is well within the range of 14%–50% previously reported.^{4,22} Other studies have shown that between 3% and 16% of fallers remain on the ground for more than one hour.^{4,21,23} Fallers who require help to get up must therefore either live with others or count on people to periodically check on their well-being. The main threat here is that a rural resident who has fallen outside (e.g., on a gravel driveway), may have a longer wait before they are discovered than someone who has fallen outside in the city, a longer time until the ambulance arrives, a longer drive to the hospital, and the potential of a hospital less well equipped to handle the severe consequences of the longer lie (e.g., specialists, imaging technologies).

Literature reports that approximately 4% of all elderly people seek medical help specifically for falls each year.²⁴ The sample size of the present study was too small to determine if that value held true for the rural fallers, but indicates the need for proper referral for post-fall follow-up. Evidence suggests that falls are commonly markers for underlying disorders that may be readily detectable by post-fall assessment within 7 days.²⁵ People will seek help after a fall depending on their own attributions toward the accident. However, it is not clear if internal or external attributions are predictive of seeking help. This study found that, on average, the rural fallers laid less blame on their surroundings (and thus more on themselves) for causing the fall than did the urban group, although this difference was not statistically significant.

There are no previous studies that have specifically investigated falls self-efficacy in rural elders; there appears to be no difference in this regard when examined with the ABC and MFES. With this ambulatory population it appears that the ABC Scale was more sensitive to change between subjects, as shown by the relative risks of falling. The MFES was modified from the original FES to be more applicable to an active population,¹⁵ although the rural subjects expressed some difficulty completing the survey because they were asked questions they felt did not apply to their lifestyles. Specifically, asking about confidence while using public transportation (MFES question 11) in a town with no public transportation network, or asking farmers about confidence while performing light gardening (MFES question 13), caused a certain degree of hesitation while answering.

A TUG score in excess of 15 seconds was shown to increase the relative risk of falling in the urban sample only (RR = 6.9, 95% CI 2.15–22.28). When the urban and rural subjects are taken together, the use of the TUG as a tool for fallers is also supported (RR = 3.4, 95% CI 1.30–8.60). Recent information may show that the TUG is not as feasible for elderly fallers as originally determined;²⁶ however, that study population involved cognitively-impaired older adults, a group excluded from this study. Previously, the TUG has been endorsed as a predictor of falling for those people who took longer than 16 seconds to complete the task.¹⁹

This study has raised important questions about falls in the elderly in rural communities and points future research in the direction of investigating more quantitative data concerned with rural fallers. The small data set here reveals no significant differences between injury rates, fall attributions, or whether the fall happened inside or outside, but a larger number of subjects would better explore these variables. Work is also needed to investigate the consequences of the fall itself -- the ability to get up after the fall, the time until help is obtained, and the degree of complications for those in rural areas compared with urban counterparts.

Competing interests: None declared.

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Table 1. Demographics of subjects who participated in the study, by self-classification of location of residence

Characteristic	Location of residence; no. (and %)* of subjects	
	Urban <i>n</i> = 75	Rural <i>n</i> = 40
Mean age (and SD), yr	76.0 ± 7.3	75.5 ± 7.7
Subjects > 80 yrs of age	20 (26.7)	9 (22.5)
Women	41 (54.7)	17 (42.5)
Marital status		
Single	1 (1.3)	2 (5.0)
Married or common-law	41 (54.7)	31 (77.5)
Divorced or separated	3 (4.0)	1 (2.5)
Widowed	30 (40.0)	6 (15.0)
Living arrangements		
Living in a private house	50 (66.7)	38 (95.0)
Living with spouse	37 (50.0)	30 (75.0)
Living with family or others	8 (10.9)	2 (5.0)
Living alone	29 (39.2)	8 (20.0)
SD = standard deviation		
*Unless otherwise specified		

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Table 2. Health characteristics of subjects who participated in the study, by self-classification of location of residence

Characteristic	Location of residence; no. (and %)* of subjects	
	Urban <i>n</i> = 75	Rural <i>n</i> = 40
Faller†	22 (29.3)	12 (30.0)
Mean self-rated health score (and SD)‡	7.07 (1.92)	6.82 (1.65)
Mean no. of years since last eye exam (and SD)§	1.47 (2.19)	1.11 (1.39)
Mean no. of nightly urinations (and SD)	1.74 (1.42)	1.74 (1.13)
Walking aids		
None	56 (75.7)	33 (82.5)
Cane	14 (18.9)	5 (12.5)
Walker/wheelchair	4 (5.5)	2 (5.0)
Alcohol consumption		
None	50 (66.7)	22 (55.0)
1–7 drinks/wk	21 (28.0)	10 (25.0)
8–14 drinks/wk	3 (4.0)	7 (17.5)
15 or more drinks/wk	1 (1.3)	1 (2.5)
No. of daily medications		
None	5 (6.7)	7 (17.5)
1–5	46 (61.3)	24 (60.0)
6 or more	24 (32.0)	9 (22.5)
Falls self-efficacy		
	8.86	
Mean MFES score (and SD)	(1.82)	8.94 (1.99)
Mean ABC score (and SD)	77.4 (23.7)	81.7 (23.7)
	13.25	
Mean TUG score, s (and SD)¶	(5.65)	12.21 (4.95)
MFES = Modified Falls-Efficacy Scale; ABC = Activities-specific Balance Confidence Scale; TUG = Timed Up & Go Test; SD = standard deviation *Unless otherwise specified. †“Faller” denotes someone who had at least 1 fall in the past 12 months. ‡On a scale of 0–10; data missing for 5 subjects (2 urban, 3 rural). §Data missing for 1 urban subject. ¶Data missing for 4 subjects (3 urban, 1 rural).		

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Table 3. Relative risk calculations for fallers in both study groups

Variable	Location of residence							
	Urban (N = 75)				Rural (N = 40)			
	Faller; no. (and %) of subjects n = 22	Non- faller; no. (and %) of subjects n = 53	RR	95% CI	Faller; no. (and %) of subjects n = 12	Non- faller; no. (and %) of subjects n = 28	RR	95% CI
Age > 80 yr	9 (40.9)	11 (20.8)	2.6	0.90–7.78	3 (25.0)	6 (21.4)	1.2	0.25–5.98
Women	14 (63.6)	27 (50.9)	1.7	0.61–4.68	6 (50.0)	11 (39.3)	1.5	0.40–6.04
Eye exam in the past year*	14 (63.6)	37 (69.8)	0.7	0.25–2.04	8 (66.7)	22 (78.6)	0.5	0.12–2.45
No alcohol consumption	15 (68.9)	35 (66.0)	1.1	0.38–3.19	8 (66.7)	14 (50.0)	2.0	0.49–8.20
8 or more drinks/wk	0	4 (7.5)	0.9	0.86–1.00	4 (33.3)	4 (14.3)	3.9	0.61–14.86
No daily medications	1 (4.5)	4 (7.5)	0.6	0.06–5.54	2 (16.7)	5 (17.9)	0.9	0.15–5.57
6 or more daily medications	8 (36.4)	16 (30.1)	1.3	0.46–3.77	2 (16.7)	7 (25.0)	0.6	0.11–3.43
Low self-rated health (< 5)†	6 (27.2)	8 (15.1)	2.0	0.61–6.72	2 (16.7)	9 (32.1)	0.4	0.07–2.37
High self-rated health (> 8)†	7 (31.8)	25 (47.2)	0.5	0.17–1.39	6 (50.0)	6 (21.4)	4.0	0.90–17.87
Low ABC score (< 60%)	9 (40.9)	7 (13.2)	4.5	1.42–14.57‡	3 (25.0)	3 (10.7)	2.8	0.47–16.35
High ABC score (> 90%)	6 (27.2)	28 (52.8)	0.3	0.11–0.99‡	6 (50.0)	15 (53.6)	0.9	0.22–3.36
Low MFES score (< 6)	4 (18.2)	3 (5.7)	3.7	0.76–18.18	2 (16.7)	2 (7.1)	2.6	0.32–21.05
High MFES score (> 9)	11 (50.0)	39 (73.6)	0.4	0.13–1.01	8 (66.7)	22 (78.6)	0.5	0.12–2.45
Low TUG score (< 12 s)§	8 (36.4)	32 (60.4)	0.4	0.13–1.04	6 (50.0)	18 (64.3)	0.7	0.16–2.75
High TUG score (> 15 s)§	11 (50.0)	7 (13.2)	6.9	2.15–22.28‡	1 (8.3)	5 (17.9)	0.5	0.05–4.46

RR = relative risk; CI = confidence interval; for other abbreviations and definitions, see footnotes in Tables 1 or 2.
 *Data missing for 1 urban subject.
 †Data missing for 5 subjects (2 urban, 3 rural).
 ‡p = ≤ 0.05
 §Data missing for 4 subjects (3 urban, 1 rural).

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Table 4. Characteristics of most recent falls of study subjects who reported having fallen at least once in the past 12 months		
Conditions and outcomes of falls	Location of residence; no. (and %) of subjects	
	Urban (n = 22)	Rural (n = 12)
Fell outside	10 (45.5)	7 (58.3)
Required help to get up	6 (27.3)	3 (25.0)
Minor injury	12 (54.5)	4 (33.3)
Major injury	1 (4.5)	1 (8.3)
Went to ED	1 (4.5)	1 (8.3)
Admitted to hospital	0	1 (8.3)
Attributions about falls*		
Mean attribution score (and SD)	5.6 (3.4)	4.6 (4.4)
Range	0–10	0–9.5
Low attribution score (< 4)	6 (27.3)	5 (45.5)
High attribution (score > 7)	11 (50.0)	5 (45.5)
Falls in past 12 mo, range	1–12	1–3

ED = emergency department; SD = standard deviation
 *Data missing for 1 rural subject. Attribution score of 0 indicates the fall was attributed entirely to subject's own limitations, and a score of 10 indicates the fall was attributed entirely to external surroundings.

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Table 2. Health characteristics of subjects who participated in the study, by self-classification of location of residence

Characteristic	Location of residence; no. (and %)* of subjects	
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Faller†	22 (29.3)	12 (30.0)
Mean self-rated health score (and SD)‡	7.07 (1.92)	6.82 (1.65)
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Mean no. of nightly urinations (and SD)	1.74 (1.42)	1.74 (1.13)
Walking aids		
None	56 (75.7)	33 (82.5)
Cane	14 (18.9)	5 (12.5)
Walker/wheelchair	4 (5.5)	2 (5.0)
Alcohol consumption		
None	50 (66.7)	22 (55.0)
1–7 drinks/wk	21 (28.0)	10 (25.0)
8–14 drinks/wk	3 (4.0)	7 (17.5)
15 or more drinks/wk	1 (1.3)	1 (2.5)
No. of daily medications		
None	5 (6.7)	7 (17.5)
1–5	46 (61.3)	24 (60.0)
6 or more	24 (32.0)	9 (22.5)
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	8.86	
Mean MFES score (and SD)	(1.82)	8.94 (1.99)
Mean ABC score (and SD)	77.4 (23.7)	81.7 (23.7)
	13.25	
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MFES = Modified Falls-Efficacy Scale; ABC = Activities-specific Balance Confidence Scale; TUG = Timed Up & Go Test; SD = standard deviation *Unless otherwise specified. †“Faller” denotes someone who had at least 1 fall in the past 12 months. ‡On a scale of 0–10; data missing for 5 subjects (2 urban, 3 rural). §Data missing for 1 urban subject. ¶Data missing for 4 subjects (3 urban, 1 rural).		

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High self-rated health (> 8)†	7 (31.8)	25 (47.2)	0.5	0.17–1.39	6 (50.0)	6 (21.4)	4.0	0.90–17.87
Low ABC score (< 60%)	9 (40.9)	7 (13.2)	4.5	1.42–14.57‡	3 (25.0)	3 (10.7)	2.8	0.47–16.35
High ABC score (> 90%)	6 (27.2)	28 (52.8)	0.3	0.11–0.99‡	6 (50.0)	15 (53.6)	0.9	0.22–3.36
Low MFES score (< 6)	4 (18.2)	3 (5.7)	3.7	0.76–18.18	2 (16.7)	2 (7.1)	2.6	0.32–21.05
High MFES score (> 9)	11 (50.0)	39 (73.6)	0.4	0.13–1.01	8 (66.7)	22 (78.6)	0.5	0.12–2.45
Low TUG score (< 12 s)§	8 (36.4)	32 (60.4)	0.4	0.13–1.04	6 (50.0)	18 (64.3)	0.7	0.16–2.75
High TUG score (> 15 s)§	11 (50.0)	7 (13.2)	6.9	2.15–22.28‡	1 (8.3)	5 (17.9)	0.5	0.05–4.46

RR = relative risk; CI = confidence interval; for other abbreviations and definitions, see footnotes in Tables 1 or 2.
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Medical error in rural practice

Samuel G. Campbell, MB BCh, CCFP(EM), Dip PEC(SA)

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See response from [T. Renouf](#)

The issue of error in medicine has attracted worldwide attention in the past few years. Initiatives to define the nature and full extent of the problem have failed, thus far, to address the issues particular to rural medicine. This article provides an overview of what is known about medical error in this setting and suggests strategies by which the rural medical community can approach this important subject.

La question des erreurs en médecine attire l'attention dans le monde entier depuis quelques années. Les initiatives visant à cerner la nature et l'ampleur du problème n'ont pas jusqu'ici abordé les enjeux particuliers à la médecine rurale. Cet article présente un aperçu de ce que l'on sait sur l'erreur médicale dans ce contexte et propose des stratégies qui permettraient aux milieux de la médecine rurale d'aborder cette question importante.

Introduction

In November 1999, the Institute of Medicine of the National Academies published a report¹ *To Err is Human: Building a Safer Health Care System* that suggested that up to 98 000 fatalities a year in the United States may occur as a result of medical error. (This is equivalent to a 747 aircraft crashing every 3 days.) There was significant public reaction, and the report attracted both congressional and presidential attention. A number of publications devoted to the topic followed,

including the entire Mar. 8, 2000, issue of BMJ and Academic Emergency Medicine's November 2000 issue. Canadian interest has been demonstrated with several articles in Canadian publications²⁻⁵ and medical error symposia held in Halifax in August 2001 and October 2002. These symposia focused on clinical error in frontline practice and were two of the first to be driven exclusively by clinicians. Landmark studies in the US^{6,7} and Australia⁸ and a preliminary study in the UK⁹ have all unearthed evidence of a significant incidence of preventable adverse events in health care systems. A similar study will commence shortly in Canada. An important question yet to be addressed is: "Where does rural medicine fit in all of this?"

The landmark studies⁶⁻⁸ were all performed using retrospective audits of hospital charts. Hospitals with less than 3000 admissions per year and psychiatric hospitals were excluded, essentially eliminating non-urban centres from consideration. In estimating the incidence of error in the US, the Institute of Medicine totally excluded error in outpatients from their analyses, acknowledging that "very little is known about the extent of adverse events in ambulatory care."¹ Error in family practice and in emergency medicine, the 2 disciplines where the majority of doctor-patient encounters occur, was also excluded from consideration in the major studies.

Indicators of the quality of preventive or primary medical care popular in the US, such as regional admission rates for chronic diseases, may not be transferable to the rural arena, where reasons for admission frequently differ strongly from those in urban areas.¹⁰

Nature of rural medicine puts it at higher risk for error

Canadian rural physicians manage the vast majority of their patients without specialist support. Studies of rural emergency departments showed that over 97% of patients are managed without transfer to referral centres.¹¹⁻¹³ There are few comparative studies¹⁴ and although, for example, rural death rates for trauma are double those experienced in an urban environment, it is believed that rural physicians provide a standard of service comparable to that delivered in the cities.¹⁴⁻¹⁶ The paradigm of practice, however, differs significantly. Rural practitioners work in potentially error-prone environments, and clearly these settings have features qualitatively and quantitatively different from those of their urban counterparts ([Table 1](#)).

Continuing medical education opportunities are frequently limited by time and

distance. Specialist, and particularly subspecialist, backup is often sparse. The scope of a rural practitioner's duties is generally broader when compared with urban practice and is associated with a correspondingly higher risk. The relative isolation in which many rural physicians practise often means less opportunity to benchmark their practice against that of their peers, and the constructiveness of feedback from peers or consultants may be diminished by the closer personal and working relationships that develop between colleagues who work interdependently. Urban consultants, to whom rural patients may be referred, are often unfamiliar with the realities of rural living and medical practice, and their advice may not be appropriate in the rural setting. Decreased accessibility for rural doctors to technological and diagnostic support may create inertia against pursuing accepted practices in patient workups and may lead to more emphasis on clinical judgement than might occur in an urban setting. Reason¹⁷ has termed this "flesh and blood" decision-making, reflecting a greater reliance on clinical acumen in the face of less accessible technological support. An Australian study found that the association between lack of access to resources and incidents of error involving fatalities was particular to rural settings.¹⁸

Personal characteristics and expectations of rural patients often appear to differ from urban ones.¹⁴ Personal and anecdotal experience suggests that rural patients are frequently more stoical and their expectations are less rigid, which may mean that poor outcomes are accepted with more tolerance. Patients who live in economically disadvantaged and remote communities sometimes suffer from a lowered sense of self-worth; this can also affect their expectations. These factors may erode patient perception of what constitutes an adequate outcome.

Rural practitioners often have a higher status in the community than do physicians who practise in cities, and their isolation from the greater medical community tends to place them more under the scrutiny of their patients than their peers. This may lead to an increased use of defence mechanisms (denial, projection, blaming) in an effort to minimize personal stress, and to maintain the confidence necessary to practise in a relatively unsupported environment. While their increased familiarity with their patients carries advantages it may, nevertheless, compromise clinical decision-making in subtle ways.

The nature and extent of error in rural practice

Very little work has been done in the field of error in rural practice. Ely and colleagues¹⁹ conducted a survey of 70 physicians who practised in "rural areas and small cities" in the US to ascertain their perception of their most memorable error.

Interestingly, 10% declined to participate because they could not remember any error they had made, perhaps demonstrating the extent of denial amongst rural physicians. The 53 physicians who did complete the survey were asked to identify the contribution(s) to their error from a list of causes, divided into 4 categories. Physician stressors were identified as contributing factors by 91% of physicians, most commonly, haste, distraction and time of visit. Process of care factors, such as being too focused on one diagnosis, or not managing the case aggressively enough, were identified by 91% of physicians. Patient-related factors, such as normal blood tests or patient influence, were identified by 72%, and physician characteristics, such as ignorance of the medical aspects of the case or the physician reaching beyond his or her capabilities, by 62%. These findings yield only a preliminary picture of the demographics of error in rural practice. Nevertheless, awareness of, and insight into, when these processes are operating may help physicians modify their practice in order to minimize the risk of error.

There are limited data on how rural physicians are responding to an atmosphere in which the discovery of error is feared. Summerton surveyed 300 general practitioners in the UK, of which half practised in non-urban areas.²⁰ Although he did not compare changes in practice between rural and urban physicians, he did find that 98% of respondents claimed to have changed their practice as a result of the possibility of a patient complaining or of being sued. Over 50% "sometimes" and 30% "often" worried about being sued. Although changes were often felt to be positive in that they potentially improved the standard of care offered, negative changes, which entailed unnecessary interventions to patients and increased costs to the system, occurred more frequently.

In spite of the neglect of rural medicine in the literature, several assumptions can be made with reasonable comfort. It is likely that a significant source of error in rural medicine is missed or delayed diagnoses. The benchmark studies identified 3 areas in particular where such errors arise: family practice, emergency medicine and internal medicine.^{6,8} All 3 operate with different paradigms but all share the common feature of an increased uncertainty about diagnosis and, therefore, an increased reliance on clinical judgement that might not exist in other settings (e.g., orthopedics, general surgery, obstetrics/gynecology, oncology). In these specialties, the clinical diagnosis is usually better defined and the errors more closely associated with procedural problems than with diagnostic ones. Such data as there are in family practice clearly indicate that the majority of errors resulting in litigation arise from within the diagnostic process,²¹ and it is well accepted that these diagnostic errors largely derive from predictable cognitive errors.²²⁻²⁴ Given the intrinsic features of rural medicine described above, such cognitive errors

would be expected to be even more prevalent in the rural setting. The important point is that while cognitive errors are often associated with the most devastating outcomes, they are at the same time highly preventable. This is an area where significant gains can be made. Greater insights must be developed into the sources of cognitive error and efforts made to find the optimal strategies to prevent them.²³ The process should rightly start with medical undergraduate education²⁵ and with special training offered for those planning a career in rural medicine.

Another assumption that can be drawn from the literature is that rural physicians frequently suffer significantly as a result of recognizing their errors.^{17,26,27} Physicians are poorly trained in dealing with error, both at a personal level and in how they communicate the error to patients. One author²⁸ has stated that physicians are actually taught not to deal with our errors! In many cases, the defence mechanisms mentioned above are subconsciously perceived as the most efficient way of coping with the realization that someone is suffering as a result of our error. The only "positive" aspect of error — that it may serve to teach us how to avoid its repetition — is lost forever, and nagging doubts about our competency may linger for years.

Although there is a paucity of information on both the extent and cost of medical error to patients in rural practice, the starting points must be that all human behaviour is fallible and that error is inevitable. Identifying risks of error in rural practice is, therefore, an important goal and will lead to its minimization or avoidance. The medical error movement is gathering momentum, and it is likely that we will be exposed to an increasing number of strategies that have been designed to avoid error but have been developed in a non-rural environment. These may not always be appropriate, therefore, for rural practice. Rural physicians need to be active in examining the issue of error in their own practices.

What can be done?

Rural physicians need a forum at which accumulated knowledge on error in rural practice can be communicated and discussed with peers. A Web-based reporting system should be initiated, similar to that proposed for emergency medicine.² It might review cases or scenarios in which confidentiality is maintained and the physician is protected against discovery. These might reveal patterns of error that rural physicians could use to design standards and strategies for risk control that are most appropriate to rural practice and against which rural physicians might be fairly judged. Errors occurring in Canadian rural practice identified by the reporting system should be published regularly in this format. The forum should be open,

non-judgemental and forward-thinking. A reference statement similar to that proposed by the Royal Australian College of General Practitioners should outline the philosophy of dealing with error committed by rural physicians.²⁹

In order to close the decision-support gaps that currently exist between urban and rural practice, a number of initiatives will be required, such as the following:

- recognition that decreased accessibility to technological and diagnostic support may lead to more emphasis on clinical judgement than current medical standards of care dictate;
- improved communication from urban centres to the periphery¹⁶ to ensure a more efficient dissemination of evidence-based, decision support systems (clinical pathways, algorithms, other cognitive aids);
- standardized formats to guide ongoing care in patients referred home from urban treatment centres;³⁰ and
- greater use of telemedicine and more widespread availability of point-of-care testing.

Rural hospitals can effectively tailor risk management strategies developed for larger urban institutions. Introducing several different methods to identify adverse events that occur in their institutions will decrease recurrence rates by altering and improving the system that contributed to their cause.^{31,32}

Rural physicians would be well served by a means of support to assist them in dealing with their emotional responses to their error, as well as by ongoing education to find efficient ways to communicate their experiences to peers and patients. A physician workshop similar to that described by Couper²⁸ should be offered for the purposes of healing damaged emotions, learning from the mistakes of others, and providing think tanks of frontline rural physicians to further explore strategies that can be communicated to each other. Consideration should also be given to the introduction of these concepts into medical school curricula. Examples of suggestions derived from physician discussion at error workshops include those listed in [Table 2.28](#)

Error is inherent in virtually all man-made systems, and we should avoid the knee-jerk reflex to apportion blame when error occurs. Undoubtedly, we do need to be held accountable for our actions, but it is now well recognized that blaming a person perceived to be responsible for an adverse event does little to prevent the error happening again to other clinicians. No one can learn from unreported errors driven underground by fear of embarrassment or litigation. Reliable systems need

to be developed for monitoring and reporting medical error, and its etiology examined by systematic root cause analysis to determine its origin.

Like the public trust in the National Health Service in the UK,³³ the Canadian health care system, despite its flaws, is still regarded by Canadians as something that belongs to them. Perhaps this feeling is strongest in rural communities, where health care professionals are regarded with more affection and respect. Honest discussion with the public regarding physician limitations, as well as the limitations of the system in which they are obliged to operate, will go a long way in avoiding the litigious and defensive medical atmosphere that has developed in the US. The new science of error prevention in health care,³⁴ in which expertise is developed in the root causes of error, as well as the routine development of strategies to avoid it, will improve the quality of health care that can be delivered in rural medicine.

Conclusion

The issue of medical error in rural practice has been neglected, both in the literature and by the profession. The time has come for quantification and description of the scope of the problem.

The occurrence of error is as inevitable in medicine as it is in practically all forms of human behaviour. Managing and controlling the risk of error requires that we avoid the initial reflex to apportion blame when error occurs. Although physicians do need to be held accountable for their actions, identified errors should be recognized as valuable tools in adjusting systems to avoid the recurrence of the error by the physician or by others. Reliable systems need to be developed for the reporting, monitoring and discussion of medical error in the rural setting. Support systems should also be developed for rural physicians through which they might gain more insights into the impact of error on their own functioning and well-being.

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Table 1. Characteristic features of rural practice that may contribute to an increased risk of error

1. Broader scope of practice
2. Increased reliance on clinical judgement
3. Relative isolation
4. CME opportunity limitations
5. Decreased specialist availability
6. Variations in local admission criteria
7. Increased familiarity with patients
8. Inadequate feedback
9. Differing patient characteristics / expectations
10. Differing physician coping mechanisms

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Table 2. Workshop suggestions for the positive management of error

1. Take mistakes seriously — do not bury them
2. Use an evidence-based medicine approach to learn from them
3. Talk to trusted peers about mistakes
4. Talk to nonmedical friends about mistakes
5. Establish a forum where mistakes can be discussed, both emotionally and intellectually
6. Pay attention to self-care
7. Professional organization should develop “helplines” for doctors
8. Discuss mistakes with patients in a way that does not burden them but, nevertheless, still allows for apology and restitution

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L'échelle canadienne de triage et de gravité pour les départements d'urgence (ÉTG) : énoncé sur l'implantation en milieu rural

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Énoncé approuvé par la Société de la médecine rurale du Canada, l'Association canadienne des médecins d'urgence, l'Association des médecins d'urgence du Québec et l'Affiliation nationale des infirmières et infirmiers d'urgence.

Contexte

L'échelle canadienne de triage et de gravité pour les départements d'urgence (ÉTG) est reconnue comme un progrès important dans la normalisation du triage aux départements d'urgence (DU) tant urbains que ruraux au Canada. Depuis sa publication, de plus en plus de DU du Canada l'ont mise en œuvre. Elle devait améliorer le soin des patients en améliorant leur triage, mais son implantation a causé de nombreux effets indésirables dans les DU ruraux.

Dans beaucoup de communautés rurales, les médecins de famille ou les omnipraticiens dispensent tous les soins, d'urgence ou autres. Ces communautés comptent en général peu de médecins, qui font de nombreuses heures de garde et dispensent souvent des soins à l'urgence, mais s'occupent aussi de patients hospitalisés, pratiquent des accouchements et visitent des patients dans des foyers de soins. Certains de ces médecins œuvrent aussi comme anesthésistes ou

chirurgiens dans leur localité. Ils font souvent de la garde de nuit à partir de chez eux.

De même, le personnel infirmier des départements d'urgence ruraux n'est pas spécialisé. À beaucoup d'endroits, ce sont les mêmes infirmières qui dispensent des soins dans la salle de médecine-chirurgie, la salle d'obstétrique, la salle de réveil et les soins intensifs.

Même si les départements d'urgence ruraux accueillent en général moins de patients que les départements urbains, l'éventail des pathologies est le même que celui que traitent des centres de soins tertiaires.

En 1999, le Comité des urgences de la Société de la médecine rurale du Canada (CU-SMRC) a entrepris des discussions sur les enjeux soulevés par l'implantation de L'échelle canadienne de triage et de gravité pour les départements d'urgence (ÉTG) en milieu rural. En 2000, l'ÉTG était devenue la grande question de l'heure au comité, qui a amorcé la mise au point d'un processus d'implantation en milieu rural. Au cours de l'assemblée annuelle de la SMRC, un groupe de discussion a cherché à délimiter les enjeux auxquels font face les diverses communautés rurales qui appliquent l'ÉTG.

Divers médecins ruraux ont signalé une combinaison ou l'autre des éléments suivants :

- Patients classés dans la mauvaise catégorie.
- Retards de triage attribuables au manque de personnel infirmier.
- Réanimation initiale retardée (RCR, accès IV, défibrillation) en attendant l'arrivée du médecin.
- Mauvais triage de cas pédiatriques.
- Ambulances qui utilisent une échelle de triage différente à cause de laquelle un DU n'est pas préparé à accueillir des patients gravement malades.
- Aucune communication entre l'ambulance et le DU, ce qui retarde inutilement les soins après l'arrivée du patient à l'hôpital.
- Médecins appelés au DU seulement après l'arrivée du patient, ce qui retarde inutilement les soins.
- Aucune mention des patientes en obstétrique dans l'ÉTG.
- Observation rigoureuse des délais prévus dans l'ÉTG, ce qui entraîne l'appel de médecins la nuit pour des cas non urgents, alourdissant ainsi le fardeau déjà lourd que les périodes de garde imposaient aux médecins. Plusieurs ont dit avoir l'intention de partir, ce qui a posé une menace pour l'accès aux

soins d'urgence dans de nombreuses communautés et a constitué le principal problème.

Le CU-SRMC, constitué de bénévoles, a rédigé un projet d'énoncé sur ces questions, qui a été révisé avec la contribution d'un autre groupe de réflexion constitué de médecins ruraux au cours de la conférence de la SRMC en avril 2001. Une autre révision fondée sur les commentaires du Dr Michael Murray, président du Groupe de travail national sur l'ÉTG, a eu lieu au cours de l'été 2001.

Le Groupe de travail national sur l'ÉTG a approuvé l'énoncé en principe en avril 2002. L'Association canadienne des médecins d'urgence (ACMU), l'Association des médecins d'urgence du Québec (AMUQ) et l'Association nationale des infirmières et infirmiers d'urgence (ANIIU) ont contribué à la révision qui a suivi et a duré d'avril à août 2002.

L'ACMU, l'AMUQ, l'ANIIU et la SMRC ont ensuite approuvé l'énoncé.

L'énoncé

Introduction

L'ACMU a mis au point l'échelle canadienne de triage et de gravité pour les départements d'urgence (ÉTG) en 1998. L'ÉTG visait à établir «une relation entre les besoins des patients en soins et les délais raisonnables pour les rendre, en plus de permettre aux DUs d'évaluer la "lourdeur" de leur clientèle, leurs besoins en ressources, et leur capacité à répondre à certains objectifs opérationnels¹». Le Groupe de travail national sur l'ÉTG est d'avis que les Canadiens vivant en milieu rural ont droit à des soins médicaux d'urgence de même niveau que ceux des régions urbaines.

Depuis la publication du document, beaucoup de DU du Canada, tant urbains que ruraux, en ont adopté les recommandations. On a modifié la circulation des patients pour qu'une infirmière préposée au triage les accueille à leur arrivée au DU. Le personnel infirmier a reçu de la formation sur l'application de l'échelle.

Effectué conformément au document sur l'ÉTG par le personnel infirmier, le triage peut être très utile lorsqu'il s'agit de trier des patients en attente.

Des problèmes ont surgi dans des départements d'urgence ruraux qui manquent de

personnel lorsqu'ils essaient d'implanter ce système. Des établissements ont donné à leur personnel infirmier une formation insuffisante sur la bonne façon de l'implanter. Les effectifs médicaux ont été soumis à des pressions lorsqu'ils ont essayé de tenir compte des délais suggérés dans le document au sujet des problèmes non urgents, ce qui a causé des frictions entre les médecins et le personnel infirmier du DU, et amplifié l'insatisfaction au travail chez les médecins ruraux, dont beaucoup cherchent à établir un équilibre entre leur travail à l'urgence et la médecine familiale, le soin de patients hospitalisés et les accouchements, notamment. À certains endroits, l'observation rigoureuse des temps d'intervention rapide pourrait pousser les médecins à partir. On lit dans le document sur l'ÉTG que les délais de réponse constituent des idéaux (des objectifs) et non des normes de soin établies. Les administrateurs d'hôpitaux de nombreuses communautés rurales ont toutefois exigé que les médecins répondent dans les délais indiqués par le document, même s'il n'y a pas de preuves pour appuyer les recommandations portant sur le délai d'accès au médecin. Nous espérons que la recherche permettra de découvrir de telles données.

Pour tenir compte de ces questions, les recommandations suivantes visent à aider à implanter le guide sur l'ÉTG dans les établissements ruraux de soins de santé.

Recommandations

1. Les départements d'urgence ruraux autant qu'urbains devraient accepter les définitions de l'ÉTG et les descriptions des niveaux I à V du triage. Voir section 6 de l'ÉTG Triage dans les unités de soins d'urgence rurales».

2a. Il faudrait donner au personnel infirmier de la formation sur l'utilisation de l'ÉTG.

2b. Les membres du personnel infirmier devraient participer à l'implantation et à la surveillance des protocoles et des directives médicales.

2c. Les hôpitaux ruraux doivent disposer d'un effectif infirmier suffisant pour trier rapidement tous les patients.

3. Il faudrait donner au personnel infirmier des départements d'urgence la formation nécessaire pour pratiquer la réanimation initiale, y compris la RCR, la mise en place de perfusions IV et la défibrillation, et bien connaître les normes SARC. Un cours d'évaluation pédiatrique comme le cours ENPC est souhaitable.

Les services ambulanciers et les départements d'urgence devraient utiliser une échelle de triage commune afin de réduire le risque de malentendus qui entraînent une mobilisation inadéquate du personnel.

4b. Les services ambulanciers devraient prévenir le plus rapidement possible les hôpitaux d'accueil de l'arrivée de patients de niveaux I et II de l'ÉTG.

4c. Le personnel du département d'urgence devrait alors prévenir rapidement les médecins de garde de l'arrivée en ambulance de tous les patients des niveaux I et II de l'ÉTG, avant leur arrivée au département d'urgence.

5. Les médecins de garde devraient être accessibles en tout temps (p. ex., par téléphone, téléavertisseur) à la fois pour qu'on puisse les appeler au besoin et qu'ils puissent donner des directives aux infirmières du département d'urgence avant leur arrivée.

6. Les délais recommandés par l'ÉTG sont des délais raisonnables d'attente pour les **soins dirigés par le médecin** (en l'absence de données probantes). Les soins dirigés par le médecin pourraient inclure les suivants.

- Soins dispensés directement par le médecin en personne.
- Conseils au téléphone.
- Soins dispensés par le personnel infirmier conformément aux directives données d'avance par le médecin. Voir la section suivante qui contient plus de renseignements.

7. Il n'est aucunement question de l'obstétrique dans l'ÉTG. Parce que la préparation aux soins obstétriques varie énormément entre départements d'urgence ruraux, chaque établissement voudra peut-être établir ses propres directives pour de tels cas. Le comité a accès à très peu d'exemples de protocoles de cette nature. On encourage les hôpitaux qui en ont à les soumettre pour publication sur le site web de la SMRC (www.srpc.ca).

Protocole relatif au niveau V de l'ÉTG

*Le CU-SRMC a établi un protocole (directive médicale) pour le cas des patients du niveau V de l'ÉTG qui se présentent aux départements d'urgence. L'implantation de cette directive médicale permettrait aux départements d'urgence ruraux et éloignés de continuer de dispenser à leurs patients des soins conformes à une norme élevée tout en réduisant le nombre de consultations inutiles données au département d'urgence par des médecins ruraux. Cette directive ne vise pas à régler le problème des départements d'urgence urbains surchargés (voir [encadré 1](#)).

Le niveau V de l'ÉTG inclut les problèmes qui peuvent être aigus mais non urgents, ainsi que des états qui peuvent faire partie d'un problème chronique avec ou sans preuve de dégradation. Dans le cas de certains de ces traumatismes ou maladies, l'investigation ou les interventions pourraient être reportées ou transférées à d'autres secteurs de l'hôpital ou du système de santé.

L'infirmière peut trier les patients du niveau V de l'ÉTG pour qu'ils reçoivent des soins à un moment ou à un endroit qui convient le mieux si l'on satisfait à l'ensemble des critères suivants [a) à e) inclusivement] sans communiquer avec le médecin de garde.

- a. Le patient est âgé de six mois ou plus.
- b. L'infirmière juge satisfaisants les signes vitaux du patient, dont la température se situe entre 35 °C et 38,5 °C (38,3 °C chez les sujets de plus de 60 ans).
- c. Le patient est évalué au niveau V de l'ÉTG.
- d. Après l'évaluation par l'infirmière, il n'y a aucune indication clinique selon laquelle le patient peut avoir besoin de l'attention urgente du médecin.
- e. Dans les cas limites, ou lorsque l'infirmière n'est pas certaine, une consultation téléphonique entre elle-même et le médecin a permis d'établir que le problème n'est pas urgent.

Lorsqu'un patient dont l'état est «non urgent» satisfait à tous les critères ci-dessus, on l'informe qu'on l'a évalué en fonction d'une série de guides approuvés pour déterminer l'urgence du besoin de soins médicaux et que son problème a été jugé non urgent pour le moment.

L'infirmière peut poser un acte infirmier si c'est approprié ou recommander au patient de chercher à obtenir des services de santé plus tard au cabinet d'un médecin de famille ou à une clinique sans rendez-vous, de prendre rendez-vous ou de revenir lorsque le médecin sera présent à l'urgence. Il faut toujours indiquer au patient que s'il a d'autres problèmes ou si son état se détériore, il doit appeler l'hôpital ou se présenter de nouveau au département d'urgence. L'infirmière peut utiliser la «Lettre au patient» ([Annexe 1](#)).

Des établissements peuvent mettre au point des protocoles de traitement normalisés pour les soins infirmiers et le soulagement des symptômes. Le site web de la SMRC en affiche des exemples.

Documentation ou production de rapports

La documentation devrait suivre le même processus que dans le cas de toutes les autres consultations au département d'urgence et inclure le niveau ÉTG, l'évaluation par l'infirmière, toute intervention infirmière et des instructions sur le congé. Le médecin de garde doit revoir tous ces

documents tôt le lendemain, apporter tout changement suggéré et le communiquer à l'infirmière en cause. Le suivi effectué par le médecin serait documenté sur la même formule du patient au service externe.

Évaluation / contrôle / vérification

Il est essentiel de pratiquer un contrôle continu afin d'assurer que les directives sont efficaces et sécuritaires. La tenue d'un registre des patients qui, après le triage, doivent recevoir des soins plus tard ou ailleurs et où l'on indique tout changement des soins ordonné par le médecin permet aux hôpitaux de suivre l'efficacité du protocole et de mettre en œuvre au besoin des modifications pour l'améliorer. La surveillance, la vérification et les interventions visant à assurer que les protocoles sont tenus à jour relèvent de la responsabilité conjointe des médecins et de l'hôpital.

Responsabilité des soins

Les soins dispensés par le personnel infirmier sous les directives d'un médecin demeurent la responsabilité du médecin de garde. Il incombe aux médecins de fournir des services de garde à la communauté afin d'assurer que les protocoles et les directives médicales constituent de bons soins médicaux et qu'ils demeurent à jour. Il incombe à l'hôpital de s'assurer que les infirmières ont reçu la formation nécessaire pour mettre en œuvre les directives du médecin et de s'assurer que ces directives sont suivies.

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Encadré 1. Directives médicales/protocoles de traitement

Un exemple de directive médicale acceptable pour les patients des niveaux IV de l'ÉTГ dans les hôpitaux ruraux et éloignés est en voie de préparation.

De nombreux hôpitaux ruraux ont déjà mis au point tout un éventail de directives médicales afin de permettre au personnel infirmier de dispenser des soins ordonnés par un médecin avant son arrivée. Le degré de détail de ces directives et l'éventail des problèmes sur lesquels elles portent varient. Dans certaines communautés rurales, il peut être nécessaire d'implanter des protocoles plus ou moins détaillés que celui que propose le présent document. Des exemples en sont disponibles sur le site web de la SMRC (www.srpc.ca). On peut les télécharger et les modifier en fonction des circonstances locales.

Nous invitons les communautés qui ont implanté des protocoles à les soumettre au Comité des urgences de la Société de la médecine rurale du Canada afin d'en faire part à d'autres intéressés. On prévoit qu'au fil du temps, ces protocoles constitueront un dépôt complet de directives médicales bien réfléchies et produites d'un bout à l'autre du Canada et peut-être à l'étranger.

L'ÉTГ est en voie de révision. La SMRC est maintenant représentée au Groupe de travail national sur l'ÉTГ. Nous encourageons les médecins ruraux à faire parvenir leurs commentaires ou leurs suggestions portant sur des améliorations aux représentants de la SMRC qui siègent au Groupe de travail national sur l'ÉTГ, en utilisant le site web de la SMRC.

[\[Retourner au texte\]](#)

Annexe 1. «Lettre au patient»

Nom de l'établissement
Adresse postale
Téléphone

Monsieur, Madame,

Le département d'urgence est destiné aux patients qui ont besoin de soins médicaux urgents. Vous avez fait l'objet d'une évaluation par une infirmière qui a utilisé une série de guides approuvés pour déterminer l'urgence du besoin de soins médicaux. Votre problème a été jugé non urgent pour le moment.

Nous vous recommandons de :

- Prendre rendez-vous pour consulter votre médecin de famille.
- Revenir à l'hôpital à _____ h.

Si vous avez d'autres problèmes ou si votre état empire, veuillez appeler l'hôpital ou revenir à l'urgence.

Le directeur médical du département d'urgence,

D'XXXXXXXXXXXX

Le médecin d'urgence de garde,

D'XXXXXXXXXXXX

Heure

Date

[\[Retourner au texte\]](#)

The occasional electrical cardioversion

Hugh Hindle, MB, CCFP

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Introduction

Treating patients who present with arrhythmia is a common problem for the rural physician. Although many patients are easily managed with antiarrhythmic agents, some require electrical cardioversion. Direct current applied through the chest wall is an effective means of normalizing many dysrhythmias, and there are infrequent side effects if this procedure is used appropriately.

Indications

- First-line treatment for unstable tachydysrhythmias.
- Treatment of stable tachycardias refractory to medication.
- Treatment of atrial fibrillation and atrial flutter.

Electrical cardioversion/defibrillation is also essential in the management of pulseless ventricular tachycardia and ventricular fibrillation. Treatment of these cardiac arrest rhythms is beyond the scope of this article and is better covered through an Advanced Cardiac Life Support (ACLS) course.

Unstable tachydysrhythmias

A pulse rate > 150 beats/min with altered mentation, hypotension, respiratory difficulty or chest pain suggests an unstable tachycardia. Urgent electrical cardioversion is indicated, although a brief trial of medications may be appropriate.

Stable tachycardias

Current ACLS guidelines recommend electrical cardioversion for stable tachycardias if drug treatment has failed.¹ Significant risks of hemodynamic compromise exist if antiarrhythmic agents are combined, therefore electrical cardioversion is generally appropriate after the failure of a single agent. The common exception to this is the use of verapamil when adenosine has been unsuccessful in the treatment of paroxysmal supraventricular tachycardia.

Atrial fibrillation / flutter

Patients with recent onset of atrial fibrillation (< 48 h) are candidates for electrical or pharmacological cardioversion.

However, if it has been more than 48 hours since onset of atrial fibrillation, a clot may form in the left atrium, and cardioversion, whether spontaneous, electrical or pharmacological, may provoke a cerebrovascular accident or femoral embolus. These patients require medication for rate control and adequate anticoagulation for a minimum of 3 weeks prior to cardioversion. Anticoagulation should continue for a further 4 weeks after restoration of sinus rhythm, until the risk of embolization has normalized.²

Atrial flutter tends to be resistant to drug therapy, so early electrical cardioversion is appropriate. Patients with atrial flutter often have periods of undetected atrial fibrillation, therefore I recommend the same anticoagulation precautions as for atrial fibrillation.²

Contraindications

- Atrial fibrillation > 48 h duration unless anticoagulated for 3 weeks.
- Digoxin-related dysrhythmias.
- Conditions where the rhythm disturbance is not the primary problem. Rhythms such as multifocal atrial tachycardia and rapid atrial fibrillation may be a response to respiratory failure, where management of the underlying condition is the key to successful treatment.

Procedure

For elective procedures the patient should be fasting to minimize the risk of

aspiration. Ideally, I prefer a second physician in attendance to deal with conscious sedation or anesthesia, allowing me to concentrate on the cardioversion. Failing that, a nurse, respiratory therapist or paramedic should be available to manage the patient's airway.

Step 1

Equipment: high-flow oxygen, suction, ECG monitor and defibrillator, oxygen saturation monitor, ACLS drugs and intubation equipment (Fig. 1).



Step 2

IV line (18–20G), administer oxygen, attach cardiac monitor leads and oxygen saturation monitor, place gel pads on chest. One pad should be placed below the clavicle just to the right of the upper sternum. The second pad is located in the mid-axillary line lateral to the nipple (Fig. 2).



Step 3 Intravenous sedation with midazolam (0.05–0.15 mg/kg) + fentanyl (1.0–1.5 mcg/kg). Use a lower dose if the patient is unstable or elderly.

Step 4

Press "Synch" button to synchronize shock with R-wave (Fig. 3).



Step 5

Ensure that R-wave markers appear on the monitor (Fig. 4).

Step 6

When appropriate level of sedation occurs, warn team that you are about to charge the cardioverter.



Step 7

Select initial energy level and press "Charge."

- Supraventricular tachycardia, atrial flutter: 50 J
- Atrial fibrillation, ventricular tachycardia: 100 J

Step 8

Place paddles on gel pads and apply 10-kg pressure (Fig. 5).

Step 9

Ensure all personnel are clear by giving a verbal warning. Press the "Discharge" buttons on both paddles. Maintain paddle pressure until shock occurs.



Step 10

Check monitor. If rhythm unchanged, repeat process with higher energy level (up to 360 J). The "Synch" button must be pressed again because the machine will default to unsynchronized mode.

Step 11

If sinus rhythm is restored, check patient's condition and monitor until patient is stable.

Notes

Other sedation techniques or general anesthesia may be appropriate.

I find it easiest to stand on a small stool at the patient's left side, with the monitor opposite (Fig. 6). This allows me to see the monitor without turning and avoids the necessity of leaning closely over the patient with the paddles. In synchronized mode there may be a significant delay before discharge; maintain the paddle pressure until the shock occurs.



Many monitors allow a hands-free cardioversion option. Special electrode pads are applied at the same site as the gel pads (Fig. 7).



Charging and discharging are controlled on the monitor panel. The electrode pads ensure good electrical contact and reduce the risk of patient burn. They also allow repeated shocks at short intervals. It is vital to use a "clearing chant" with this technique, as it is not obvious to the rest of the medical team when the shock will occur.

Complications

Significant complications are uncommon. A recent series showed no complications in a group of 80 patients with recent onset of atrial fibrillation treated with electrical cardioversion in the emergency department.³

Hypoxia or hypotension

The effects of sedation can be minimized with conservative dosing regimes and reversed with flumazenil and naloxone if necessary.

Local burns

If the paddle slips off the gel pad or arcing occurs, local burns may develop. Paddles must be placed away from medication patches or ointment. Pacemakers and implantable defibrillators should also be avoided. Burn injury to the medical team may also occur with inadvertent patient or equipment contact.

Arrhythmias

All types of arrhythmia have occurred after electrical cardioversion. Although serious rhythm disturbances are rare, rural physicians must be prepared to manage potentially lethal arrhythmias, including ventricular fibrillation or severe bradyarrhythmias, which require temporary pacing. Inadvertent administration of an unsynchronized shock may result in the "R on T" phenomenon, provoking ventricular fibrillation. Serious post-shock arrhythmias are more common with digoxin toxicity, so I discontinue digoxin 24 h before an elective procedure.

Thromboembolism

Historical series suggest a risk of thromboembolism of 1%–5% following cardioversion for atrial fibrillation prior to current anticoagulation practices. With appropriate anticoagulation the risk appears to be closer to 1%.²

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A primer on rural medical politics: 7. Canadian Medical Forum

Keith MacLellan, MD

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The Joint Position Papers on Rural Maternity Care and on Advanced Maternity Skills and Cesarean Section in rural obstetrics represent an effort to improve the chances that a woman living in rural Canada can deliver her baby close to or in her own community. To do this, family practitioners must be trained and have the proper credentials on a national basis to function beyond the primary care level — not just in obstetrics, but in a wide variety of other fields. In previous primers³⁻⁸ I have discussed the obstacles to full implementation of such a policy in the governmental and university arenas, as well as the pressures on the accrediting colleges, the Canadian Medical Association, the licensing bodies and the Medical Council of Canada. In this, the seventh in the series, I ask: What if these national political associations came together? Would rural women (and others) be properly served? What other medical players might have a role?

The Canadian Medical Forum (CMF) was a staid, semi-formal organization that met twice a year under Canadian Medical Association (CMA) stewardship to discuss national issues of medical education. Member organizations included the 2 accrediting colleges, the Medical Council of Canada, the licensing bodies, the national association of medical students and that of the interns and residents, as well as the national associations of the teaching hospitals, educators, the Association of Canadian Medical Colleges and, of course, the CMA.⁶⁻⁸ As I have touched on previously, all these national organizations have well delineated mandates that by no means act in concert and are, in fact, often conflicting. About the only common characteristic is an anticipation of government direction and/or funding to accomplish their mandates. One other shared aspect of members of the CMF is a bemused reaction to Canadian rural health care issues, ranging from

serious concern, to outright manipulation, fear or condescension. Mostly, the preference is to ignore rural issues, at least until these problems come with serious money attached. From a rural point of view, the CMF is a sorry little political world, seriously short on initiatives that might help rural populations. Nevertheless, the CMF is the only national medical game in town that has such a broad representation.

The CMF has attempted to mold itself into a national interface between governments and the medical system. "Task Force 1" was struck to brief the combined federal/provincial ministers of health on physician resources. The federal government hosted the meeting, insisting the Society of Rural Physicians of Canada (SRPC) become part of the presentation (a great piece of behind-the-scenes work by the Office of Rural Health). Eventually the CMF, not being well versed in rural health complexities, accepted the SRPC as an observer. They then agreed to half of the presentation time being devoted to rural physician resources issues as presented to the ministers by the SRPC.

"Task Force 2" has followed, being a more ambitious sector study and physician model exercise. For this the CMF has received some \$2 million, but not without some haggling at the federal departmental level. Governance is still a big issue — there being none of any account. The SRPC is privileged to be part of the Management Committee of Task Force 2, where it hopes to be able to add to its previous contributions. The CMA's Affiliates Committee has produced a loose organization calling itself the "National Specialty Societies," which is now demanding access to Task Force 2 direction despite the CMA's presence. Under government prodding, other nonphysician groups, such as nursing associations, have also been invited to be part of Task Force 2, muddying the waters and making accountability even more difficult.

It is not clear whether this circus can be held together to produce anything useful as far as physician models, physician resources and health care planning. One would hope so, but whether government ministers and their officials (waiting for Kirby, waiting for Romanow, waiting for Godot) will heed the results of this tentative and confusing new CMF advocacy and consultative role is another matter. It is certainly improbable that the CMF will discuss the plight of rural childbearing women any time soon unless, of course, the issue has substantial and recurring funding attached, coupled with strong government directives to address the problem.

There are other national physician groups to which rural issues can be brought.

Most of these are specialty groups, such as the Society of Obstetricians and Gynaecologists of Canada (SOGC), the Canadian Association of Emergency Physicians (CAEP), the Canadian Association of General Surgeons (CAGS), the Canadian Anesthesiologists' Society (CAS), and so on. These groups have little power to change government or academic policies, relying on membership fees, pharmaceutical company support and CME profits to issue clinical guidelines and initiatives. Occasionally, a good clinical guideline will force change at the community level, but this is unpredictable and rare. The Joint Position Papers on Rural Maternity Care and on Advanced Maternity Skills and Cesarean Section^{1,2} have been fully endorsed by the SOGC; the rural anesthesia paper has been applauded by the CAS; work is now being done between the SRPC and CAGS. Although CAEP works alone or (at least in the past) with pharmaceutical companies, its Canadian Emergency Department Triage and Acuity Scale (CTAS) guidelines⁹ are being adopted by courts and coroners' offices as more than the benchmark they were intended to be. It is heartening that CAEP has agreed to work with the SRPC on rural modifications to CTAS.¹⁰ All these papers and policies respond to very real and serious needs in rural Canada but are no closer to useful implementation than when they were started.

In many ways, the specialty societies have been understanding and supportive of rural issues. Most (but not all!) do not feel threatened by the prospect of formalizing the generalist functioning at the specialty level, even seeing the advantage to their specialist members of this happening within controlled, limited skill sets. But, except in the amorphous National Specialty Societies mentioned above, none belong to the CMF or either of its two task forces. Other than pharmaceutical grants, most specialty societies have no consistent access to funding for implementing programs, policies and guidelines — especially not ones that require huge changes in our dominant care model — a model that currently inhibits the training and licensing of rural generalists.

Where is the blockage, then? Rural women of childbearing age are still having a difficult time arranging to have their children born close to home. Primary Care Reform, if it continues to ignore rural realities, might spell the eventual absence of any generalist functioning at anything other than the primary level. Rural populations will increasingly need to travel long distances to get even the most basic of secondary care — to have their simple fractures set, their pneumonia treated, their heart attacks and mental health cared for, their sick children treated, or their colons examined. A vision worthy of Cassandra perhaps, but when will "distance to travel for care" be considered in the same manner as urban waiting lists? Whither (and wither) comprehensive care?

Is there nothing left to do? All avenues seem blocked. Is the situation hopeless, and are we all going to a rural hell in a handbasket?

Next: The final chapter — the SRPC. Or: "We have met the enemy, and he is us."

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Not just a patient:
the dangers of dual relationships

Dan R. Reilly, MD

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Dual relationships occur when a doctor and patient have significant interactions outside the office. These relationships are particularly difficult to avoid for rural physicians and increase the risk of boundary violations. When boundaries are not respected, the doctor–patient relationship can be damaged, the level of care can be compromised and exploitation can occur. Every physician must carefully assess and reassess her or his personal interactions with patients to ensure that the doctor–patient relationship is not compromised. Il y a double relation lorsqu'un médecin et un patient entretiennent des contacts importants en dehors du bureau. Ces échanges sont particulièrement difficiles à éviter pour les médecins ruraux, ce qui augmente le risque de transgression des limites devant normalement exister entre le patient et son médecin. Une telle transgression peut nuire à la relation médecin–patient, compromettre les soins, voire donner lieu à une situation d'exploitation. Chaque médecin doit évaluer et réévaluer attentivement ses contacts personnels avec des patients afin de s'assurer que la relation médecin–patient ne soit pas compromise.

Dual relationships: a rural reality

Removing the tree stump was a community project. Each night for a week a few neighbours would gather around the offending remnant of a poplar tree and discuss its extraction. In the end, a chainsaw belonging to one of the neighbourly consultants completed the job. Observing from the kitchen window of the rural elective apartment, I was struck by how much stronger the sense of community was here than at home in the "big city." The closeness of this community was also evident at the physician's office where I was placed.

Patient encounters during clinical skills teaching sessions always began with a minute or two of one-sided "small talk" as the physician enquired about the patient's children, job, farm, etc. But in the rural doctor's office the exchange was mutual. The patient was just as interested in the doctor's life as the doctor in the patient's. I found this familiarity was vaguely uncomfortable, but discussions with several physicians revealed it was usual in rural practice.

Physicians who practise in rural areas are confronted with the challenge of treating patients who are, at the very least, acquaintances.¹ They may be neighbours, members of the same faith community, or sit across the table at board meetings. The rural physician may have as a patient her mechanic, or child's teacher. With these patients the physician has a dual relationship. Fellow citizens of a small community may be both patient and friend. The physician may be both doctor and customer. This reality presents special challenges for the rural physician. She has an ethical obligation to provide care to underserved patients. To fail to do so may leave the potential patient without a physician. On a practical level, refusing to treat any person with whom the physician has non-clinical contact may eliminate most of the potential patient population, especially if the town is remote and the physician lives where she practises. Despite this reality of rural practice it has long been recognized that dual relationships pose a threat to appropriate medical care by causing boundary violations and interfering with patient autonomy.

The dangers of dual relationships

Professional boundaries are "parameters that describe the limits of a fiduciary relationship in which one person entrusts his or her welfare to another, to whom a fee is paid for the provision of a service."² They ensure that nothing external to the fiduciary relationship compromises the level of care. More important, boundaries prevent the physician from abusing the patient's trust.

Resentments, dependencies and affective or financial bonds arising from the non-clinical relationship can threaten the physician's ability to be objective, empathic, sensitive and selfless, to confront noncompliance, and to communicate unpleasant medical information.^{2,3} This risk, in the context of family relationships, is addressed by Article 11 of the CMA Code of Ethics, which limits treatment of close relations.⁴ The same dangers confronted when treating family are present when treating others whose emotional attachment approaches that of family.

If all patients receive the "best standard of care" then all can expect similar

treatment. Boundaries dictate that, in return, the physician may only expect appropriate financial reward. A dual relationship may lead either party to expect or receive "special treatment." This expectation may never be verbalized. Equally possible is that one person may perceive that special consideration is expected, or is being offered, even when that is not the case. At the office this may be demonstrated by offers of, or demands for, unusual flexibility in time, place and length of appointments⁵ or waiving fees for non-insured services. Outside of the office the physician may receive, or expect to receive, favours such as products or services at a reduced price.⁵ If expectations beyond those normally arising in a doctor-patient interaction exist and are not met, then clinical and non-clinical relationships can both be damaged. If the physician meets the special expectations of one patient, relationships with other patients may be damaged.

Requiring patients to meet expectations other than reasonable financial compensation for services rendered is exploitation. The doctor-patient relationship can be seen as a contract based on a spoken or unspoken agreement that treatment will be rendered in return for monetary compensation. "Changing this contract, whether by subterfuge or consent, amounts to a 'bait-and-switch' tactic."⁶ The most publicized examples of this occur when a patient, attempting to ensure that the clinical relationship will continue, agrees to become the doctor's lover. But the exploitation may be more subtle. The patient may feel that it is necessary to offer the physician discounts, invitations to social events, free childcare, or any number of favours. It may even be that the patient feels the other relationship must be formed or maintained in order to continue as a patient.

Exploitation in dual relationships raises the issue of patient autonomy. The patient may not desire a relationship outside of the clinical situation but accept it as necessary.⁷ If the physician knows the patient from another setting, she may assume she knows more about the patient's wishes and the patient's knowledge level than she actually does. While it may appear that one has familiarity with "how a person processes important information" and their values, it must be kept in mind that the physician "is as susceptible as anyone else to error and self-deception about the perceptions of someone who is close."³

The doctor may also have strong desires regarding which treatment options a patient will choose. Emotional bonds or financial links may mean the physician stands to gain or lose, depending on a patient's choices.

When to accept, when to refuse

Every social relationship exists along a continuum. The casual acquaintance is at one end. Occurring due to random factors such as geography or common social involvements, this relationship involves very little emotional investment. Expectations are minimal. Rural physicians may have many patients who fall into this category, and their experience demonstrates that one can certainly avoid serious boundary violations and respect patient autonomy. At the other end of the spectrum lies spouse, partner, close family and emotionally intimate friendships. Emotional investment is large, and expectations are many. Few would argue that any physician should provide medical care to these people except in emergency situations.^{3,8}

Between these two extremes lie many relationships. A given relationship may shift along the continuum over time. The line that divides those relationships that are casual enough to permit a safe and beneficial doctor–patient relationship and those relationships that threaten it is not clear. By asking herself these questions the physician may be able to better evaluate potential patients and re-evaluate patients with whom the non-clinical relationship may have changed.

- Would I have any difficulty sacrificing the non-clinical relationship in order to provide the best medical care possible?
- Do I desire to gain, or am I gaining, anything from the clinical relationship other than appropriate financial compensation and the satisfaction that arises from being involved in an interesting and helpful profession?⁶
- Am I too close to probe this person's intimate history and physical being, to objectively present information and treatment choices, and to cope with bearing bad news?³
- Does this person expect, or is this person receiving, any special consideration regarding appointment times, duration of visits, billing for non-insured services, or other clinic rules?^{2,5,6,9}

If the physician cannot answer all these questions with an unequivocal "No" then she must consider carefully initiating or continuing the doctor–patient relationship. The slippery slope from minor boundary crossings (an inevitability in rural practice) to major boundary violations is greased by rationalizations. Thoughts such as "this circumstance doesn't qualify as a role conflict because . . ." or "this person is special because . . ." should be a bright red flag warning of future difficulties.¹⁰

As soon as the physician concedes even the possibility that a dual relationship may interfere with care, then the situation needs to be addressed. This may mean a frank

discussion with the patient or potential patient about roles and expectations. Discussing the situation with an impartial colleague may expose one's rationalizations and clarify the appropriate course of action.¹¹ It may be necessary to refuse or terminate one relationship for the sake of the other. It would be far better to walk away with a friendship or healthy clinical relationship than to destroy both by trying to juggle two roles.

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13. If expectations beyond those normally arising in a physician–patient interaction exist and are not met, then clinical and non-clinical relationships can both be damaged.

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Letters/Correspondance

Epidural analgesia for labour and delivery

To the Editor:

With regard to Truman and colleagues' article in the Fall issue,¹ the limiting factor in our hospital for epidural use is availability of nursing staff. Our protocol calls for these patients to be handled 1:1. Often on weekends or during the holidays we can't find staff to call in at any time. Our hospital has 30 beds. We deliver 150 to 190 babies per year. Our town has a population of 5000, with another 7000 or so in our drawing area.

I'm curious to know if other rural Alberta hospitals also have this problem.

Michael Magnan, MD
St. Paul, Alta.

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1. Truman C, Jin Y, John son D. Use of epidural analgesia for labour and delivery in Alberta. [Can J Rural Med 2002;7\(4\):265-70.](#)

To the Editor:

It is with interest that I read the article on epidurals in Alberta.¹ The numbers seem to reflect our own experience in Fort St. John. However, I do wonder if the authors read too much from their data in reaching their conclusion. There are a multitude of factors that will have an impact on the epidural rate in a hospital, and attempting to explain the low rates in rural areas based on the experience of the anesthetists does somewhat of a disservice to the rural anesthetists who provide this service. We have 5 GP-anesthetists here in Fort St. John who all have a minimum 1 year

training in anesthesia (several with diplomas) with extensive epidural experience. We provide standard epidurals, combined spinal-epidurals and "walking/ low-dose" epidurals.

Several times we've returned from meetings inspired by the works of the likes of Stu Iglesias and Neil Leslie and have looked at the reasons for our own low epidural rate, only to be told that "there is nothing wrong with our epidural rate."

Based purely on observation and on no empirical data I feel that some of the main influences on the epidural rate in rural hospitals are the following.

1. Patients' attitudes, expectations and education. (Dare I suggest that rural patients are "tougher" than their urban counterparts and "expect" labour to be more painful?)
2. Nursing attitudes toward epidurals. (Dare I be politically incorrect and suggest that our rural nursing colleagues tend to encourage epidurals less than do their urban counterparts?)
3. The beneficence of our rural medical colleagues. (They are less likely to call us out during the night because they know we too will have a full office in the morning.)

Unfortunately, these factors are difficult to study and to control for, but I do suspect they are the real reasons the rates differ so much.

Paul Mackey, MB BS, DRANZCOG, DA, CCFP GP Anesthetist
Fort St. John, BC

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