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Cover: "Red Deer River Breaks"

John Stone  
24 by 18-inch print  
Original painting in acrylics.  
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What's in a definition?

John Wootton, MD, CM, CCFP, FCFP  
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Can J Rural Med 1996; 1 (2): 55

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Using a concept implies knowing its definition. That must mean that as editors of the Canadian Journal of Rural Medicine (CJRM), we know how to define "rural." Well, think again. Had we waited for a consensus on this issue before publishing we might never have got the Journal off the ground.

This uncertainty has many practical consequences, one of which touches our desire to send this journal out to physicians who are engaged in the practice of rural medicine. Who are they, and how do we find them?

It turns out that the mailing of our first issue stumbled into this semantic quagmire. A Canada Post definition of rural was used, and copies were mailed only to physicians with a "0" strategically placed in their postal codes. This filter correctly identified addresses in the most rural areas of the country but missed everyone else, including many GP anesthetists who may regret that they missed our feature article on ambulatory epidural anesthesia in rural areas, by Dr. Stuart Iglesias of Hinton, Alta., and the accompanying editorial, by Dr. Joanne Douglas, clinical professor and head of the Division of Obstetric Anaesthesia at the British Columbia Women's Hospital and Health Centre, Vancouver, BC. Either may be ordered directly from the authors or through CJRM. The full text of CJRM, volume 1, number 1, including these articles, can be accessed via the Internet at: <http://www.cma.ca/cjrm/vol-1/issue-1.htm>.

So to those folks in Renfrew, Ont., in Hinton, Alta., and in Dauphin, Man. (among many others), unquestionably practitioners of rural medicine, an apology and a hope that with this issue we have been able to refine our aim.

Aside from how it has affected CJRM and its targetted audience, many more substantive concerns hinge on the definition of rural. It is important to identify the features that describe practices that we conveniently group under the moniker "rural" so that we can understand the

issue of recruitment and retention, provide the necessary training and, in the end, provide the health care that is appropriate to rural communities. Physicians simply cannot be tossed into a rural area and be expected to "do the best they can." Issues of fundamental justice and of fiscal equity hinge on clear definitions.

Yet a definition of rural, as it applies to medicine, remains elusive. Distance from a major centre is not itself a reliable indicator. A practice 40 km from Toronto may function in a significantly different manner from one located 40 km from Red Deer. Transport time in good weather has been used by some as a definition, as has the presence or absence of key specialty or subspecialty facilities. However, these in isolation are not a full description since weather varies with the season, and specialty availability, at times, seems just as unpredictable. The level of responsibility assumed by rural physicians is widely seen as a defining concept, but even in this area there may be great interphysician variability (even in clearly rural regions), and responsibility itself is difficult to quantify.

The medical needs of rural communities must be explicitly defined, parameters of practice clearly spelled out and training provided to match the skills required. To do this effectively we must be able to define rural.

CJRM will be exploring the topic in greater depth in a forthcoming issue, and we are interested in broadening the discussion within and outside the rural community. If you have a clear idea of what rural means to you, share it with us. I have a feeling that the answer will come from those who know rural medicine the best, rural doctors themselves.

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Qu'est-ce qu'une définition?

John Wootton, MD, CM, CCFP, FCFP  
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Can J Rural Med 1996; 1 (2): 55

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Pour utiliser un concept, il faut en connaître la définition. Cela doit signifier que, comme rédacteurs du Journal canadien de la médecine rurale (JCMR), nous savons définir le mot rural. Pensez-y deux fois. Si nous avions attendu de dégager un consensus sur la question pour publier, il est fort possible que nous n'aurions jamais pu lancer le Journal.

Cette incertitude a de nombreuses conséquences pratiques, dont une a trait à notre désir de faire parvenir ce journal aux médecins qui pratiquent la médecine en milieu rural. Qui sont-ils et comment les trouver?

L'envoi de notre premier numéro est tombé dans ce borborygme sémantique. On a utilisé une définition de rural établie par la Société canadienne des postes et des exemplaires du Journal ont été expédiés seulement aux médecins dont le code postal contenait un «0» à un endroit stratégique. Ce filtre a identifié correctement les adresses des régions les plus rurales du pays, mais raté toutes les autres, y compris celles de nombreux omni-anesthésistes qui peuvent regretter d'avoir manqué notre article vedette sur l'anesthésie épidurale ambulatoire en région rurale, produit par le Dr Stuart Iglesias, de Hinton (Alb.), et l'éditorial qui l'accompagnait du Dr Joanne Douglas, professeur clinique et chef de la Division d'anesthésie obstétrique au Women's Hospital and Health Centre de la Colombie-Britannique, à Vancouver. On peut commander l'un ou l'autre texte directement des auteurs ou par l'intermédiaire du JCMR. On peut trouver le texte intégral du JCMR, volume 1, numéro 1, y compris les articles en question, à l'adresse Internet <http://www.cma.ca/cjrm/vol-1/issue1.htm>

À nos collègues de Renfrew (Ont.), Hinton (Alb.), ou Dauphin (Man.), entre autres, qui sont sans aucun doute des praticiens de la médecine rurale, nous présentons nos excuses et nous espérons avoir pu rectifier le tir avec ce numéro.

Outre ses répercussions sur le JCMR et le lectorat qu'il vise, beaucoup d'autres préoccupations de

fond pivotent sur la définition du mot «rural». Il est important d'identifier les caractéristiques qui décrivent les pratiques que nous qualifions commodément de «rurales» afin de pouvoir comprendre la grande question du recrutement et de la rétention des membres, de fournir la formation nécessaire et, en bout de ligne, de fournir les soins de santé qui conviennent aux communautés rurales. On ne peut tout simplement catapulter les médecins dans une région rurale et s'attendre à ce qu'ils «fassent de leur mieux». Les enjeux liés à la justice fondamentale et à l'équité budgétaire pivotent sur des définitions claires.

La définition du mot rural appliqué à la médecine demeure toutefois insaisissable. La distance par rapport à un grand centre n'est pas en soi un indicateur fiable. Une pratique située à 40 km de Toronto peut fonctionner très différemment de celle qui se trouve à 40 km de Red Deer. Certains ont utilisé, comme définition, la durée du transport par beau temps, tout comme la présence ou l'absence d'installations spécialisées ou sous-spécialisées clés. Ces éléments ne constituent toutefois pas une description complète à eux seuls puisque le temps varie selon la saison et que la disponibilité de spécialités semble parfois tout aussi imprévisible. Le niveau de responsabilité assumé par les médecins ruraux est en général conçu comme une définition, mais même dans ce domaine, il peut y avoir d'importantes variations entre les médecins (même dans les régions clairement rurales) et la responsabilité en soi est difficile à quantifier.

Il faut définir clairement les besoins médicaux des communautés rurales, préciser clairement les paramètres de la pratique et donner la formation nécessaire à l'acquisition des compétences requises. Pour pouvoir le faire efficacement, nous devons pouvoir définir le mot «rural».

Le JCMR creusera davantage la question dans un prochain numéro et nous souhaitons élargir la discussion dans la communauté rurale et en dehors de celle-ci. Si vous avez une idée claire de ce que veut dire le mot «rural» pour vous, faites-nous en part. J'ai le pressentiment que la réponse viendra de ceux qui connaissent le mieux la médecine rurale, soit les médecins ruraux eux-mêmes.

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President's message

Keith MacLellan, MD  
Shawville, Que.  
President, Society of Rural Physicians of Canada

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Rural medicine is a global issue. This statement may sound contradictory because, after all, rural medicine is very much community based. Decentralization of decisions, training and care are at the core of our discipline. Yet, while politics, history and economics fragment our world, geographic realities can unite us, particularly with the strong, shared experiences of rural doctors. This possibility was highlighted at the First International Conference on Rural Medicine, held in Shanghai between May 21 and 28, 1996, a meeting where rural doctors from many countries exchanged ideas, skills, stories and entertainment. Many themes were familiar to Canadian doctors: isolation, heavy workloads, high levels of responsibility and skills, poor political representation at the regional and national levels, inadequate training programs and underfinancing. Combine these with a love of the countryside or the bush and a commitment to rural people and the challenges their health care creates, and you'll find a rural doctor from almost any country.

Three events were, to my mind, the salient points of the conference. The first was the overwhelming interest in an acknowledgement of China's barefoot doctors -- those who staff the front lines of the Chinese medical system. This acknowledgement was repeated over and over as doctors from around the world visited villages and looked into the barefoot doctors' black bags, visited their clinics and viewed their patients.

Another high point was a talk by Dr. Roger Strasser, one of the world's few professors of rural medicine, in which he described why he believed his discipline to be distinct, with its own literature, research and clinical characteristics. His presentation of the rural training policy of WONCA (the World Organization of Family Doctors) is available to anyone wishing to make representation to governments or health bodies.[1]

Finally, the Rural Doctors Association of Australia and the Society of Rural Physicians of

Canada (SRPC), with help from many countries, convened the World Organization of Rural Doctors (WORD), devoted to improving health care to rural residents globally and helping in the formation of national and regional rural doctors' associations. The premise is that in order to create effective change in rural health care, contributions must come not only from government and collegial academic levels, but also from the field workers themselves -- those "toiling at the coal face." WORD should be fully established by September 1997, in time for the Second International Conference on Rural Medicine, in Durban, South Africa. Contact us through the SRPC if you would like to help.

So you see? You are not alone, even though isolation is such a big factor (sometimes good, sometimes bad) in most rural doctors' lives. Give us your support, tell us what's in your black bag, join the SRPC. There is lots of work to do, both for your town and for the world.

### Reference

1. WONCA Working Party on Training for Rural Practice. Policy on training for rural practice. Can Fam Physician 1996;42:1181-3.

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## Message du président

Keith MacLellan, MD

Shawville (Qué.)

Président, Société de la médecine rurale du Canada

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La médecine rurale est une question mondiale. Cette affirmation peut sembler contradictoire parce qu'après tout, la médecine rurale est des plus communautaires. La décentralisation des décisions, de la formation et des soins constitue le cœur même de notre discipline. Or, si la politique, l'histoire et l'économie balkanisent notre monde, les réalités géographiques peuvent nous unir, compte tenu particulièrement des expériences solides et communes des médecins ruraux. Cette possibilité a été mise en évidence au cours de la première Conférence internationale sur la médecine rurale qui s'est tenue à Shanghai, du 21 au 28 mai 1996. Au cours de cette réunion, des médecins ruraux de nombreux pays ont échangé idées, compétences, anecdotes et divertissements. De nombreux thèmes étaient bien connus des médecins du Canada : isolement, lourdeur de la charge de travail, niveau élevé de responsabilité et de compétences spécialisées, représentation politique médiocre aux échelons régional et national, insuffisance des programmes de formation et du financement. Conjuguez ces facteurs à l'amour de la campagne ou de la brousse et à un engagement envers la population rurale et les défis que posent leurs soins de santé, et vous trouverez un médecin rural dans à peu près n'importe quel pays.

Pour moi, trois événements ont été les points saillants de la conférence. Il y a eu d'abord l'intérêt prédominant qu'a suscité chez les participants la reconnaissance des médecins aux pieds nus de la Chine -- qui sont aux premières lignes du système médical en Chine. Cette reconnaissance s'est répétée à maintes reprises à mesure que des médecins de toutes les régions du monde se sont rendus dans des villages où ont examiné les troussees médicales des médecins aux pieds nus, visité leurs cliniques et rencontré leurs patients.

L'allocution du Dr Roger Strasser, un des rares professeurs de médecine rurale au monde, a été un autre point saillant. Il a alors décrit pourquoi il croyait que sa discipline était distincte avec ses publications, ses recherches et ses caractéristiques cliniques distinctes. Son exposé sur la politique relative à la formation rurale de WONCA (Organisation mondiale des médecins de famille) est disponible pour quiconque veut présenter des instances à des gouvernements ou à des organismes

du secteur de la santé.

Enfin, l'Association des médecins ruraux de l'Australie et la Société de la médecine rurale du Canada (SMRC), avec l'aide de nombreux pays, ont créé l'Organisation mondiale des médecins ruraux, vouée à améliorer les soins de santé fournis aux populations rurales de la planète et à aider à créer des associations nationales et régionales de médecins ruraux. La prémisse est la suivante : si l'on veut modifier efficacement les soins de santé en milieu rural, les contributions doivent provenir non seulement du secteur public et des milieux collégiaux et universitaires, mais aussi des travailleurs locaux eux-mêmes -- ceux qui «abattent la tâche». L'Organisation mondiale devrait être entièrement fonctionnelle en septembre 1997, à temps pour la deuxième Conférence internationale sur la médecine rurale qui se tiendra à Durban, en Afrique du Sud. Si vous voulez aider, veuillez communiquer avec nous par l'entremise de la SMRC.

Vous voyez donc que vous n'êtes pas seul, même si l'isolement est un facteur tellement important (parfois bon, parfois mauvais) dans la vie de la plupart des médecins ruraux. Appuyez-nous, dites-nous ce qu'il y a dans votre sac noir, adhérez à la SMRC. Il y a énormément de travail à faire, à la fois pour votre localité et pour le monde entier.

#### Référence

1. WONCA Working Party on Training for Rural Practice. Policy on training for rural practice. Can Fam Physician 1996;42:1181-3.

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Practical tips for rural family physicians teaching residents

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An increasing number of residents are taking some or all of their family medicine training in the rural family practice setting. A positive and thoughtful approach to teaching, combined with the benefits of this setting, can make the experience enjoyable and successful for the resident, the preceptor, patients, staff and colleagues. This article groups practical tips under the following headings: before the resident arrives; the first day; during the rotation -- office practice, house calls, nursing home and hospital; evaluation; and troubles. The article is intended to provide a constructive framework within which rural family physicians can develop their own approach to teaching residents in their practices.

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## Résumé

De plus en plus de résidents font une partie ou la totalité de leur formation en médecine familiale dans une pratique familiale rurale. Jumelée aux avantages qu'offre ce contexte, une stratégie positive et réfléchie de formation peut rendre l'expérience agréable et couronnée de succès pour le résident, le précepteur, les patients, les membres du personnel et les collègues. Cet article présente des trucs pratiques relatifs aux aspects suivants : avant l'arrivée du résident; la première journée; au cours de la rotation -- pratique au cabinet, visites à domicile, visites de foyers de soins et d'hôpitaux; évaluation; troubles. L'article vise à présenter un cadre constructif où des médecins de famille ruraux peuvent élaborer leurs propres façons de former des résidents dans leur pratique.

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## Introduction

Although there is a body of literature dealing with teaching family medicine residents and another dealing with rural practice, only a few articles are devoted to the practical aspects of teaching residents in the rural family practice setting.<sup>1-11</sup> This setting is ideal for teaching family medicine for several reasons. Rural physicians need to be skilled clinicians and must also be an effective resource for their practices and community populations. The setting models and encourages continuity of care and close doctor-patient relationships. By its very nature, the rural family medicine teaching and learning experience tends to be direct, personal and meaningful for both resident and preceptor.\* Residents can experience the full range of family practice, including office-based practice, house calls and nursing home visits, as well as the diversity of hospital-based family medicine, with direct care of in-hospital patients, emergency department work, deliveries, procedures, anesthesia and assisting at surgery. As a result, residents in rural family medicine develop the knowledge, skills and attitudes to equip them for rural practice. Studies have also shown that rural training increases the proportion of physicians entering rural practice.<sup>[12-16]</sup>

In Canada rural family medicine rotations currently range from a brief 1-month exposure to a 12-month, in-depth experience. The goals and challenges differ in these different models.[9] In this article, we address elements universal to all lengths of rotation.

This article is based on our experience of teaching residents in our rural family practice since 1988, on feedback from the residents with whom we have worked and on discussions with other preceptors and residents in training in Canada and Australia. Our purpose is to provide practical tips for rural family physicians who teach the increasing number of residents taking some or all of their postgraduate family medicine training in a rural family practice setting. We also hope to encourage rural physicians to become preceptors.

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### Before the resident arrives

Before the resident arrives, groundwork needs to be laid with the preceptor's staff and colleagues, the hospital administrator and the hospital staff. All of these people will contribute to the success of both the resident's learning experience and the preceptor's teaching experience. It is important that they be involved from the outset, that they be made aware of the benefits of the process and the role that they can play, and that they understand the skill levels, roles and responsibilities of the resident.

### University relations

The residency program director or rural program coordinator should outline the university's expectations and arrange for faculty development and administrative support. Financial arrangements and program support vary from university to university[9] but should generally result in the preceptor's making neither more nor less money while training a resident and doing neither more nor less total work. In general, a resident will lighten the preceptor's direct clinical load, which will thus generate time for a variety of teaching activities. A teaching stipend paid to the preceptor, in addition to the resident's fee-for-service billings, encourages dedicated teaching time and makes it less likely that the resident will be used in a service-only role.

The university can help to ensure that the rural community's practice facilities are appropriate. The university can also extend its teaching aids by equipping a room with a video camera to allow direct observation and videotape review. This is particularly important for practices that have residents most or all of the time and for residents who do most of their training in a rural setting. In addition, assistance with information technology links such as electronic mail and access to literature searching helps reduce the resident's isolation in rural areas. The university should also provide a letter of good standing on the resident's behalf.

### Pre-rotation meeting between resident and preceptor

To set the stage for the rotation, the resident and the preceptor should meet beforehand, if at all

possible. The preceptor can use the pre-rotation meeting to help orient the resident in a number of ways:

- provide information to the resident about the rotation and the setting;
- introduce the resident to some of the people with whom he or she will be working;
- tour the practice, hospital and community;
- sort out accommodation, schedules and other specific needs;
- ask the resident to prepare goals and learning objectives for the rotation so that the preceptor and the resident can together develop a suitable educational plan to best meet the learner's needs within the realities of the teaching setting.

### Resident manual

A manual is a helpful resource that can be given to the resident either at the pre-rotation meeting or on the first day of the rotation. The manual should include the following components:

- a map and information about the practice and the town, including social and recreational opportunities;
- a description of the rotation, including responsibilities, schedules, locations and key personnel;
- a description of various activities and selectives that the resident may undertake with other physicians;
- a copy of the hospital protocol for medical students and residents.

### The preceptor's office and staff

Staff members in the preceptor's office are the first and last points of contact for patients and are integral to the joy or stress of the resident and the preceptor. It is important that they appreciate the benefits and challenges of the resident placement.

The office staff should be asked to put their thoughts on paper and assist in developing a plan for orienting the resident to the practice. Staff members can encourage patients to participate in the learning and teaching process. In turn, the office staff should be encouraged to provide important feedback regarding patient concerns to both the preceptor and the resident and to aid in the evaluation of the resident.

The resident should be given adequate space in which to see patients, write notes, read and perform other duties. Access to a computer that would allow literature searches is ideal.

### The preceptor's colleagues

Most rural physicians are eager to be part of the teaching process, although in most communities only one or two are prepared to take the major responsibility for a resident's placement. This "team approach" provides a great opportunity for residents to broaden their experience by exposing them to physicians with a variety of practice styles and teaching strengths. The

preceptor should encourage colleagues to help supervise the resident periodically. However, the lines of responsibility should be clarified for both the preceptor's colleagues and the resident.

#### The hospital

A supportive hospital administrator and staff are important to the success of the resident's involvement with hospital patients.

Before the rotation begins, the preceptor should establish a standard protocol, with the approval of the medical advisory committee, outlining the resident's role in the hospital and the degree of supervision required. The level of responsibility and degree of supervision should be different for medical students, 1st-year residents and senior residents.

The preceptor should also discuss the resident's rotation in advance with the hospital administrator and ensure that relevant hospital departments and staff are notified before the resident's arrival.

The resident should have his or her own insurance through the Canadian Medical Protective Association.

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#### The first day

The preceptor should set aside a block of time on the first day to introduce the resident to office staff, colleagues, the hospital administrator and key hospital staff.

The office staff can help in the office orientation. The resident should see only a few patients on the first day in the office, and for the first few days it may be beneficial for the preceptor or a member of the office staff to personally introduce patients to the resident. The resident should also prepare a short letter of introduction to be displayed prominently in the waiting room and in examination and interview rooms.

The preceptor's goal here is to provide orientation to the practice, as well as helping to ease the resident into patient care. The preceptor must be careful not to overwhelm the resident with too many details on the first day.

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#### During the rotation: Office practice

##### Scheduling

Good scheduling contributes to satisfied patients, happy staff and a successful learning and teaching experience. The preceptor should determine the time he or she needs to deal with each type of office visit and give the resident more time for each type. For example, the resident can initially be given 20-minute blocks for minor problems and 40-minute blocks for complete assessments and counselling appointments. The resident can move toward a more realistic practice schedule as he or she advances in training and develops more knowledge and skills. Breaks should be built into the schedules of both the preceptor and the resident to allow discussions of patient care.

Continuity of care is important in family medicine but can be difficult to arrange during a resident's rotation for several reasons,[17] including short rotation length, patient preferences and scheduling problems. It is often convenient to have the resident see patients with urgent problems, as these patients are usually grateful to be seen on short notice. Teaching the resident to give the patient specific follow-up instructions will aid in continuity for both the resident and the patient. Some patients (for example, patients with chronic problems, such as congestive heart failure and diabetes, who are under long-term care and who need frequent follow-up, as well as patients requiring prenatal or well-baby care) could be asked to see the resident for their regular follow-up over the course of the rotation.

Patient "fatigue" resulting from seeing several consecutive residents rather than the preceptor can be addressed by changing which patients see a given resident through the entire rotation. Practices that have residents on a continuous basis can establish a new patient population specifically designated as the resident practice; these patients will then have a clear expectation that a resident will be their primary physician. However, the preceptor retains final responsibility for all patient care.

### Charting and prescriptions

The preceptor should stress that all notes must be clear yet succinct and that no laboratory or radiography results are to be filed in the chart until they have been acted upon, if necessary, and initialled by the resident or preceptor. The resident should be encouraged to keep the problem list, the medication list and other evolving patient databases up to date. Periodic chart audit by the resident fosters awareness of the components of good charting. The Peer Assessment Report form, available from the College of Physicians and Surgeons of Ontario, and the College's published guidelines[18] provide useful frameworks for this process.

If a prescription is written on duplicate paper, one copy can be attached to the chart for review by the preceptor. The resident should be encouraged to use generic drug names and to document the purpose of each drug on the prescription to reduce the opportunity for patient error. For example, potential confusion between Lasix and Losec can be minimized by writing "furosemide (ankle swelling), 20 mg once daily" and "omeprazole (stomach), 20 mg once daily" respectively.

### Patient chart review and problem-based learning



One of the joys of sharing the patient load with a resident is that the preceptor tends to be finished seeing patients sooner than would otherwise be the case. The time saved should be reinvested in teaching.

The preceptor and the resident should set aside time each day for a teaching session. This session should be used to discuss the patients that the resident has seen over the course of the day, especially any that raise important learning or teaching issues. Reflective questioning is often helpful in the teaching process.

The preceptor can encourage the resident to pick one or two interesting or challenging patient problems each day as the focal point for reading. Some residents keep a handwritten or computer log to identify topics studied.

#### Direct observation and videotape review

Direct observation and videotape review of patient visits with the resident are two important teaching tools to help the resident develop interviewing skills. They are also a great aid in the preceptor's evaluation of the resident. Many universities supply videotape equipment for rural preceptors to use in teaching.[9]

At first, video review may be somewhat daunting for the resident, so the preceptor should be specific, gentle and positive. Modified Pendleton's rules[19] are a helpful feedback technique ([Table 1](#)).

Patients should be informed and their consent received before videotaping takes place.

Cross-viewing by the program director, rural coordinator or other supervisors from the university department allows a diversity of feedback for the resident.

#### Supervision and responsibility

Transferring patient care responsibilities to the resident can be difficult for a new preceptor. Indeed, this process is done gradually with each new resident. The family practice setting provides the opportunity for close supervision and assessment of the resident's abilities through initially frequent consultation between the resident and the preceptor during the day and through daily chart review discussions. If either the resident or the patient has concerns, the preceptor should be consulted directly.

Each resident progresses through training at a different speed. The close one-on-one supervision available in a family practice setting allows cultivation of the resident's strengths, as well as identification of any weaknesses. The sooner areas of weakness are identified, the easier it is to focus on strengthening those areas during training.

In keeping with graded responsibility and the goal of progressing toward independent practice, it is neither necessary nor appropriate for the preceptor to see every patient that the resident sees in the office, the emergency department or other settings. Note that provincial guidelines for supervision of residents vary (details can be obtained from each province's licensing body, for example, the College of Physicians and Surgeons of Ontario[20]). In our practice, all notes written by the resident are initialled by the preceptor, to indicate that the chart has been reviewed. In this way, the resident is allowed considerable independence, and the preceptor maintains continuity and knowledge of what is happening to all patients in the practice.

In addition to encouraging case-based discussion and problem resolution on a daily basis, it is helpful to set aside a block of time to discuss teaching, social or personal issues of importance and to re-examine the learning and teaching objectives. The shorter the rotation, the more frequent these sessions should be. This time allows for reflection on issues that may not be formally "taught," such as practice management, lifestyle issues, community involvement and the boundaries between the physician's personal and professional life, especially in rural communities where one's patients are also one's neighbours, friends and colleagues.[21]

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During the rotation: House calls and nursing home visits

House calls provide an opportunity for a much deeper understanding of patients and the context of their illnesses and represent a rewarding aspect of family practice. The preceptor should accompany the resident the first time he or she visits any house call location. Residents are often comfortable making repeat elective house calls on their own. The preceptor and the resident should discuss the criteria for making a house call on an urgent basis rather than suggesting an office or emergency department assessment, as well as the importance of avoiding compromising or unsafe situations, especially after dark.

Visiting patients in a nursing home provides an opportunity for the resident to develop a considerable degree of responsibility in the long-term care of geriatric patients. In a busy rural family practice, it is important for the resident to have time dedicated for nursing home rounds.

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During the rotation: The hospital

Most rural physicians are heavily involved in hospital-based family medicine, including direct care of in-hospital patients; emergency department work, obstetric deliveries, procedures and minor surgery; and assisting in major surgery and sometimes anesthesia. All of these situations provide excellent learning and teaching opportunities that help the resident put urban hospital

training into practice in a rural context, where there is little or only distant specialist back-up. These settings are also ideal for the rural preceptor's interested colleagues to become involved in resident training.

#### In-hospital rounds

In the hospital setting, the expectations of hospital staff as well as the nature of the patient's illness can make transferring responsibility for patient care to the resident difficult. Care of these patients by the resident can be facilitated by having the resident make rounds and write progress notes and doctor's orders first thing in the morning, for review with the preceptor at teaching rounds just before going to the office or at noon. The preceptor should make suggestions either in the notes or directly to the resident, so that the resident can write the actual doctor's orders.

#### Emergency department

In the emergency department, the degree of independence and level of supervision required will vary according to the stage of residency training and the capability of the individual resident. Residents who have received Advanced Cardiac and Trauma Life Support training before their rural rotation can play a major role even in major cardiac or trauma cases. Residents who may have been used to doing one thing at a time on other rotations may have difficulty making the shift to emergency medicine, where one often has to deal with several major problems in different patients simultaneously. Within the unpredictable ebb and flow of many rural emergency departments, time can often be found for wide-ranging discussions of diagnosis or therapeutics.

#### Obstetrics

Resident skill and comfort levels vary enormously in the area of obstetrics. Depending on the individual's interest, the resident can be involved in deliveries with trusted colleagues, as well as with the preceptor. The resident should be made aware of local limitations and the need to involve the supervising physician at an early stage in circumstances that may lead to operative intervention or transfer of the patient elsewhere.

#### Procedures

Many minor operative procedures, such as flexible sigmoidoscopy, endometrial biopsy, casting and excision of a variety of lesions, are performed routinely by rural family physicians in hospital and office settings. Residents seem to look forward to and benefit from direct hands-on training in such procedures. However, some residents are technically adept while others struggle to master the techniques. The preceptor should objectively (and humbly) review his or her own procedural techniques, then demonstrate the procedure for the resident. The resident can subsequently perform the procedure with lessening degrees of supervision.

#### Selectives and enrichments

We encourage our residents to spend one or two half-days a week on other selectives and enrichments. For example, residents in our practice often spend a half-day every second week

with a general practice (GP) anesthetist. This exposure helps them to gain confidence in performing intubation and in dealing with unconscious patients and may cultivate an interest in GP anesthesia. Specialists within the region and visiting specialists who hold clinics in the area are often a good source of selective experiences. Residents in our practice have benefited from exposure in this way to obstetrics, physiatry, psychiatry, orthopedic surgery, internal medicine and radiology. Half-days spent in various health and community agencies such as a pharmacy, a home care agency, a physiotherapy department and an industrial medicine setting also broaden the resident's outlook.

### Seminars

The resident should be involved in presenting short seminars for the nursing and medical staff at the hospital and at regular teaching rounds. Some programs require the resident to conduct a research project that can involve a rural health topic.

Most of our residents are fortunate enough to regularly spend Wednesday afternoons in London, Ont. (a 3-hour round-trip drive, weather permitting), at the resident academic half-day seminar series. These sessions provide peer learning and social interaction. Programs in which residents are placed more distantly in rural areas may find retreats to the university for a weekend or several days more appropriate. The preceptor should be aware of the problem of isolation for the resident, who may find a rural placement a stark contrast to the social milieu of medical school in a large city.<sup>9</sup> Involving the resident in social and community activities, when possible, can help.

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### Evaluation

Evaluation of the resident is an important part of the rural training experience and should be learner-centred and ongoing. As already discussed, feedback early in the rotation can be given through daily chart reviews, frequent observation and some videotaping.

A formative or interim evaluation should be done partway through the rotation to identify progress to date, strengths and areas that need improvement and to set educational goals for the remainder of the rotation.

A summation or final evaluation at the end of the rotation is necessary for the university residency program. We find it helpful to first ask the resident to do a self-evaluation on an extra form; we then use that as a focus for discussion in completing our final evaluation.

Input from office and hospital staff, colleagues and other residents can be helpful.

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## Troubled or troubling residents

Although most residents have an excellent rural practice training experience, it must be remembered that some may suffer from stress, illness or other problems. Compassion and understanding on the part of the preceptor are of utmost importance.

In addition to being away from their peers, residents may be separated from their families and usual support persons. Furthermore, residents of various minority groups, relating to ethnic background, religion or sexual orientation, may be unable to find people with similar interests or background in the rural community.

There is always the potential for personality conflict between the resident and the preceptor, given the close, direct and prolonged nature of some rural practice rotations.

The resident or a family member may suffer medical or psychiatric illness. The resident's competence to practise must be carefully assessed, and the risk of suicide must not be ignored. Such problems must be recognized early, and appropriate medical, psychiatric and supportive resources found, either within the rural community or within the resident's own university community. However, a preceptor would be well advised to avoid becoming the resident's physician.

Full communication with the program director or rural coordinator is essential. Under difficult circumstances the help of this person can be invaluable. Sometimes the resident must be removed from the rural practice before the end of the rotation. At these times, support is needed for both the resident and the preceptor, both of whom may have difficulty dealing with the experience.

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## Conclusions

A positive experience during rural family medicine rotations can encourage more residents to choose rural practice as a career and can help the resident to develop the knowledge, skills and attitudes necessary for rural practice. Rural preceptors provide meaningful rural learning experiences by integrating university, local hospital and preceptor office components and fostering positive relationships among preceptor, resident, patients, colleagues and staff. The groundwork for this process must begin before the resident's arrival and extends through the many facets of the rotation.

We, like many other rural family physicians, have found teaching residents to be a positive experience that challenges and encourages us to stay current in and enthused with the practice of medicine. Although at times tiring, frustrating and humbling, its great rewards are the

professional and personal development that we see in the residents.

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Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

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## Abstract

**Objective and method:** To assess the attitudes of rural family physicians in Newfoundland toward the use of clinical practice guidelines (CPGs) by means of a cross-sectional survey sent by mail to all of Newfoundland's family physicians working in communities with a population of less than 30 000.

**Results:** According to data available through medical organizations, the family physicians providing primary care in rural Newfoundland are predominantly young men; just over half of them are graduates of Canadian medical schools, and only 26.9% are members of the College of Family Physicians of Canada. Of the 232 family physicians to whom the survey was sent, 137 (59.1%) returned a completed questionnaire.

**Positive attitudes:** Among the respondents, 95.6% felt that family physicians should be involved in the development of guidelines, 72.6% had read at least one guideline, 65.9% were prepared to use guidelines in their own practice, 61.6% thought that guidelines would improve their treatment ability, and 59.7% thought that guidelines would improve their knowledge of disease.

**Negative attitudes:** A large number of respondents (76.5%) felt that government should not legislate guidelines, 75.7% were worried about the medicolegal implications of guideline implementation, 66.2% felt that guidelines reduce physicians' flexibility, and 57.9% felt that guidelines would not improve their diagnostic ability.

**Conclusions:** The respondents were, in general, favourably disposed toward CPGs; most had already read some guidelines, and about two-thirds were prepared to use them. Almost all respondents felt that family physicians should be involved in the development of guidelines for use in family practice. These family physicians felt that guidelines were more likely to help them treat patients than to make a diagnosis. Despite these favourable attitudes, physicians were worried about the medicolegal implications of the introduction of guidelines, and many of them felt that guidelines would limit their personal flexibility in caring for patients. Organizations developing or implementing CPGs in family practice should address these concerns.

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## Résumé

**Objectif et méthode :** Évaluer les attitudes des médecins de famille ruraux de Terre-Neuve à l'égard de l'utilisation des guides de pratique clinique (GPC) au moyen d'un questionnaire postal transversal envoyé à tous les médecins de famille de Terre-Neuve qui travaillent dans des

communautés de moins de 30 000 personnes.

Résultats : Selon des données disponibles auprès des organisations médicales, les médecins de famille qui fournissent des soins primaires en milieu rural à Terre-Neuve sont avant tout de jeunes hommes. Un peu plus de la moitié d'entre eux sont diplômés de facultés de médecine du Canada et 26,9 % seulement sont membres du Collège des médecins de famille du Canada. Sur les 232 médecins de famille auxquels on a envoyé le questionnaire, 137 (59,1 %) l'ont renvoyé rempli.

Attitudes positives : Parmi les répondants, 95,6 % étaient d'avis que les médecins de famille devraient participer à l'élaboration des guides, 72,6 % avaient lu au moins un guide, 65,9 % étaient disposés à utiliser des guides dans leur propre pratique, 61,6 % étaient d'avis que les guides amélioreraient leur capacité de traitement et 59,7 % pensaient que les guides amélioreraient leur connaissance des maladies.

Attitudes négatives : Beaucoup de répondants (76,5 %) étaient d'avis que le gouvernement ne devrait pas légiférer sur les guides, 75,7 % étaient préoccupés par les répercussions judiciaires de la mise en œuvre de guides, 66,2 % étaient d'avis que les guides réduisent la flexibilité dont disposent les médecins et 57,9 % pensaient que les guides n'amélioreraient pas leur capacité de diagnostic.

Conclusions : Les répondants étaient en général bien disposés en ce qui concerne les guides. La plupart avaient déjà lu des guides et les deux tiers environ étaient prêts à les utiliser. Presque tous les répondants étaient d'avis que les médecins de famille devraient participer à l'élaboration de guides qui serviraient en médecine familiale. Ces médecins de famille étaient d'avis que les guides avaient plus de chances de les aider à traiter des patients qu'à poser un diagnostic. En dépit de ces attitudes favorables, les médecins étaient préoccupés par les répercussions judiciaires de la mise en œuvre de guides et beaucoup d'entre eux étaient d'avis que les guides limiteraient la flexibilité dont ils disposaient personnellement pour traiter leurs patients. Les organisations qui élaborent ou mettent en œuvre des GPC en pratique familiale devraient tenir compte de ces préoccupations.

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## Introduction

Clinical practice guidelines (CPGs) are statements, systematically developed, that assist the physician in making decisions about appropriate health care for specific clinical conditions or situations.[1] Over the past decade, thousands of guidelines have been developed.[2-5] Much of the impetus for their appearance has come from studies that show how the behaviour of physicians varies enormously, even within small areas of the same country.[6,7] More recently, there has been an emphasis on the introduction of guidelines as a method of controlling health

care costs,[8] enhancing the standards of medical care by improving outcomes[9] and reducing the risk of litigation.[10]

Originally, CPGs were developed using peer review and consensus conferences. Recently, more explicit processes, based upon the systematic evaluation of scientific evidence, have led to an explosion of CPGs.[11,12] Desirable attributes for good guidelines have been developed,[13] and there are also guidelines for reviewing guidelines.[14,15]

Despite the tremendous enthusiasm and the great expenditure of time, effort and money to develop guidelines, there are doubts about their effectiveness in medical practice. Several comprehensive reviews[16]-[18] have revealed that most CPGs have been developed for use in the hospital setting, and that of the minority developed for use in the community, most are concerned with preventive care. Furthermore, most evaluations of CPGs look at the process of care (Did the physicians do what the guidelines suggested?), rather than the outcome of care (Did the patients actually feel better as a result?). A review of the relevance of most CPGs to common conditions treated in primary care[19] found that of 91 studies of guidelines for care in the community, only 4 satisfied the criteria of being done in a clinical care setting, of being applicable to conditions normally treated by family physicians, of being conducted in a methodologically sound manner and that the use of the CPG resulted in significantly improved patient outcomes. A further concern is that physicians tend not to comply with guidelines, even if they agree that such guidelines are needed.[20]

Most of the effort to date has concentrated on guideline development, and there is uncertainty about how to disseminate CPGs and implement them in medical practice. It is not enough merely to mail copies of guidelines to physicians; it seems necessary to use predisposing, enabling and reinforcing strategies to make sure that physicians actually use guidelines.[21,22] Many CPGs have been developed and tested in a tertiary care setting, but there has been little effort to do the same in primary care settings. It is conceivable that CPGs might be of more use to family physicians in rural practice, because they tend to have less opportunity for continuing medical education and less access to specialist colleagues than do their urban counterparts.

There is a dearth of information on the attitudes of family physicians toward CPGs, and many questions remain unanswered: What are the greatest concerns about CPGs among family physicians? What barriers exist to the effective use of CPGs in family practice? What factors should organizations consider when developing, disseminating or implementing CPGs in the family practice setting?

The main objective of this study was to assess the attitudes of rural family physicians toward CPGs. More specifically, we wanted to explore the physicians' knowledge of and familiarity with guidelines, their prior use of CPGs, their satisfaction with and confidence in CPGs, their worries about CPGs and the barriers to the use of CPGs in family practice; in addition, we wanted to determine whether family physicians felt that they should be involved in the development of

CPGs. This study should add to the rather small base of knowledge about the use of CPGs in family practice.

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## Methods

A two-page, self-administered questionnaire\* (which was tested with a group of physicians at the Newhook Community Health Centre in Whitbourne, Nfld.) was mailed to all 235 family physicians working, in late 1994, in Newfoundland communities with populations of less than 30 000. The physicians were among those identified on a list provided by the Newfoundland and Labrador Medical Association as being in full-time family medical practice; this list was updated by a secretary, who phoned all practices for a recent list of family physicians. The questionnaire was accompanied by a covering letter assuring confidentiality (indeed, the survey was anonymous) and a stamped return envelope. A second questionnaire was sent to physicians who did not respond to the first mailing within 3 weeks. No further follow-up was done.

After the questionnaires had been returned, demographic information about physicians in the sample group was obtained from the Newfoundland and Labrador Medical Association (unpublished data), the Newfoundland Medical Board register[23] and the Canadian Medical Directory.[24] This information included sex, type of practice (single or group), year of graduation, country of training (as Canadian or foreign), membership status in the College of Family Physicians of Canada and type of payment (salary, fee-for-service or other).

The questionnaire contained 12 closed-ended and 3 open-ended questions. The closed-ended questions requested a response of "yes," "no" or "unsure," or a response on a five-point Likert scale. To minimize response bias, the scale on three of these questions was reversed. Closed-ended questions requested information about use of CPGs, attitudes toward government legislation of CPGs, physician involvement with CPG development, the influence of CPGs on physicians' knowledge of and ability to diagnose and treat disease, the effect of CPGs on the autonomy and flexibility of physicians in dealing with patients, and concerns relating to legal and malpractice issues. The open-ended questions asked the physicians to list the advantages and disadvantages of guidelines and to give any other comments.

The data were analyzed with the Quattro Pro spreadsheet package[25] and SPSS-X for Vax.[26] Descriptive statistics were compiled for the answers to the questions and the demographic characteristics of the physicians. Chi-square analyses were used for proportions, and Spearman's rho coefficient was used as a measure of association (concordance) for ordinal variables. An alpha value of 0.05 was specified for all statistical tests.

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## Results

Of the 235 surveys mailed, 3 were returned because the physicians were no longer in practice at the addresses to which the surveys had been sent. Of the remaining 232 physicians, 137 (59.1%) returned a completed questionnaire; of these, 104 (75.9%) replied to the first mailing and 33 (24.1%) to the second mailing.

Demographic information was obtained for 221 of the 235 physicians to whom surveys were mailed. One hundred and seventy-nine (81.0%) of the physicians were men, and just over half (126 [57.0%]) were graduates of Canadian medical schools. Almost half (102 [46.2%]) had graduated in 1990 or later, and an additional 73 (33%) had graduated in the 1980s. Only 59 (26.7%) were members of the College of Family Physicians of Canada. More than a third (81 [36.7%]) were paid by salary rather than fee-for-service.

About a quarter of respondents had never read a CPG or were unsure about using guidelines in their practice ([Table 1](#)). Less than half of those who had read a CPG thought that it had affected their practice. There was almost unanimous support for the idea of family physician involvement in the development of CPGs but not for government legislation of them.

A majority of respondents thought that CPGs would be likely to improve physicians' knowledge of and ability to treat disease, whereas more than half felt that the use of CPGs would not improve the ability to diagnose disease ([Table 2](#)). The number of respondents who thought that guidelines would improve treatment was significantly greater than the number who thought that guidelines would improve diagnosis ( $\chi^2 = 10.10$ ,  $p < 0.002$ ).

A majority of the respondents felt that CPGs would reduce flexibility in dealing with patients and indicated that they were also concerned about legal and malpractice issues ([Table 3](#)). However, there was a fairly even split on the questions of whether CPGs would hamper family physicians' individual skills and experience and whether guidelines accurately reflect optimal diagnosis and treatment ([Table 3](#)).

In the replies to the open-ended questions, the most frequently listed advantages of CPGs were that they would standardize the approach to clinical conditions (39 respondents), they represent an easy reference for diagnosis and treatment (22), and they provide up-to-date learning for physicians (17). The most frequently listed disadvantages were that CPGs reduce flexibility or force stepwise treatment (33 respondents), they reduce autonomy and impair the art of clinical medicine (19), and they artificially categorize patients (16).

Some questions on the survey tended to be answered in a similar fashion; that is, in some cases, responses on the Likert scales were significantly concordant from one question to another. For example, responses to the statement that the use of CPGs reduces flexibility were concordant

with those for the statement that CPGs do not permit physicians to fully use their individual skills (Spearman's  $\rho = 0.66$ ,  $p < 0.001$ ). The responses that were significantly concordant are presented in [Table 4](#).

In addition, some questions seemed to be answered in a significantly dissimilar fashion: responses to some statements were in significant disagreement with responses to other statements. Pairs of statements with responses that were in significant disagreement are presented in [Table 5](#).

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## Discussion

We found that, in general, rural Newfoundland family physicians had favourable attitudes toward CPGs. Most had already read some guidelines, were prepared to use them and felt that such guidelines would improve doctors' knowledge of disease and ability to treat. An overwhelming majority felt that family physicians should be involved in developing CPGs to be used in primary care.

Relatively little is known about physicians' attitudes to CPGs. We found only three published reports of mail surveys, one involving responses from 1513 US internists[27] and two involving primary care doctors, one in the United States (with 52 respondents)[28] and one in the United Kingdom (with 213 respondents).[29] Each of these surveys, as well as our own, had a response rate of about two-thirds, which is typical for a mail survey. Only 23% of US urban physicians reported using guidelines; they were more confident in guidelines produced by their own professional bodies and younger physicians were much more favourably disposed to guidelines than were older physicians.[28] British general practitioners were generally in favour of guidelines, 78% of such physicians having been involved in writing in-house guidelines, and 69% felt that they were effective in improving patient care.[29] But even in the United Kingdom, more than a quarter of physicians were concerned that guidelines would result in "cookbook" medicine, would stifle innovation and might be used to set performance-related pay.[29]

We found that attitudes to CPGs in rural Newfoundland were closer to those in the United Kingdom than to those in the United States. It is possible that this difference relates to the timing of the surveys. The US survey[28] was published in 1991, and there has been much activity in the guidelines field since then. Attitudes among US physicians may have changed in the interim and may now be more in line with our survey and the 1995 British survey.[29] At present, Canadian family physicians seem ready for CPGs tailored to their practice or for studies about the best way to implement CPGs in primary care.

Despite the predominantly positive attitudes toward guidelines that we found, there were some

consistent reservations. There was less confidence that CPGs would improve diagnostic ability than that they would improve treatment, and many respondents felt a threat to their professional flexibility and application of individual skills to the care of patients. There were also substantial minorities -- on the order of 40% -- who felt that their knowledge of disease and their treatment skills would not be improved by the use of guidelines and that, consequently, guidelines would not affect their practice.

Our correlational analyses revealed that respondents' attitudes were fairly consistent from one question to another. There were two camps: a slightly larger group that favoured CPGs and a smaller group that was against guidelines.

In concordance with the guidelines literature, which states that physicians are more likely to comply with guidelines if they have been involved in their development,[16,30-32] the rural physicians who replied positively to statements about CPGs in our survey were also strongly in favour of becoming involved in developing CPGs.

One of the current debates about CPGs is whether the general public should be involved in their development. To date, not enough research has been done to definitively answer this question. A recent survey of organizations active in the CPG field in Canada[33] indicated that provincial medical associations and medical specialty societies should be involved in the development of CPGs, but not patients.

There were several limitations to our study. The survey was cross-sectional, and only 60% of physicians responded. Although our covering letter to physicians defined CPGs as consensus statements, which suggest what physicians should do, we have no way of being certain that all respondents understood the concept in the same way. Because the survey was completely anonymous, rather than confidential, we had no way of obtaining information from the nonrespondents to compare with information received from the respondents.

In summary, our survey found that rural family physicians in Newfoundland are, in general, fairly favourably disposed toward CPGs. The consensus was that family physicians should be working to produce guidelines for their own use and that family physicians may have doubts about the accuracy of diagnosis and treatment with respect to CPGs. These findings may indicate a problem related to using specialist-developed CPGs in primary care. Most physicians are familiar with CPGs and have used them. There is, however, a degree of scepticism about whether the introduction of guidelines will actually improve patient care: many felt that their ability to respond creatively to the individual patient may be somewhat hampered by guidelines.

The results of this survey illustrate several important points for individuals planning the development or implementation of CPGs for family physicians. Those who want family physicians to test or use CPGs must address the legal concerns of physicians. They must also address the perception that CPGs reduce physicians' flexibility by emphasizing that, as their



name implies, CPGs are guidelines only. In the present climate of opinion among family physicians in Newfoundland it seems likely that CPGs that concentrate on treatment, rather than diagnosis, are more likely to succeed. Finally, we must remember that the effectiveness of CPGs developed in tertiary care settings or based largely on research conducted in such settings should be examined carefully before and after their dissemination to the family practice setting.

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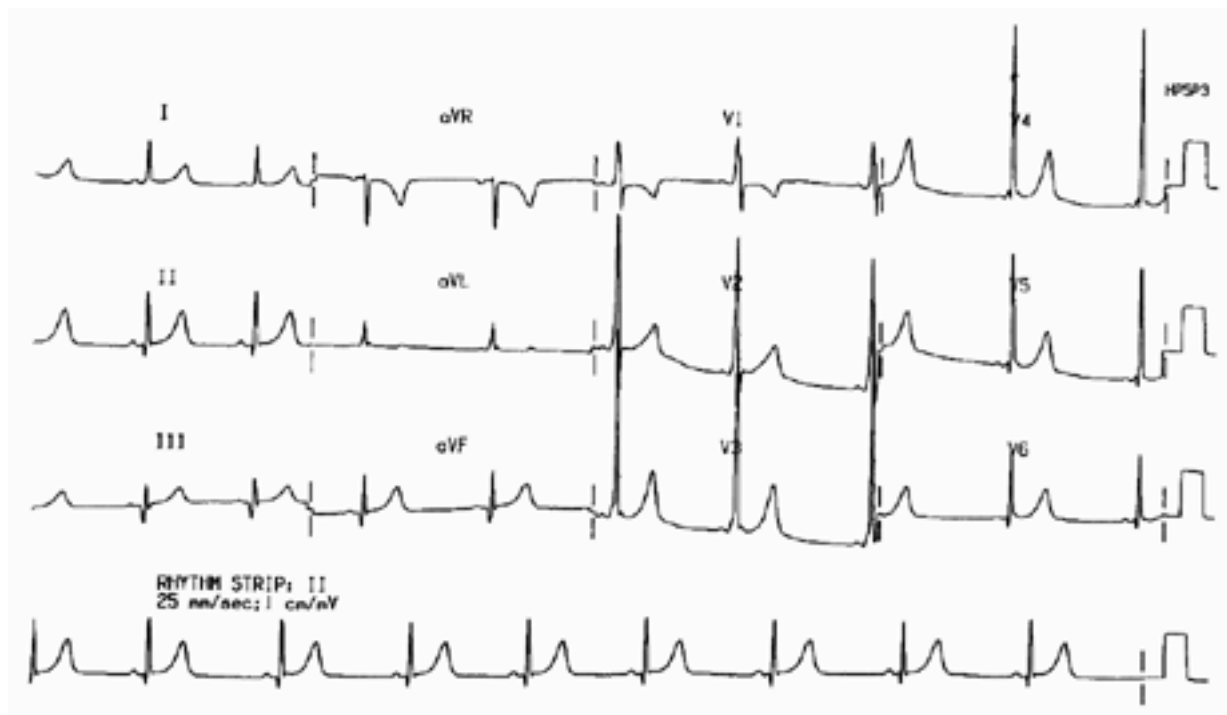
## Country cardiograms case 2

Jim Thompson, MD, CCFP(EM), FCFP  
Sundre, Alta.

Can J Rural Med 1996; 1 (2): 82

### Case presentation

A 16-year-old boy repeatedly presented to our rural clinic and emergency department in normal sinus rhythm but with a history of palpitations. His electrocardiograms had always been normal. On the advice of a cardiologist, we did an exercise treadmill test to see if we could provoke arrhythmia but were unable to do so. The results of Holter monitoring were also normal. We continued to watch the patient, and eventually he presented with the electrocardiogram shown below.



What is your diagnosis, and how would you manage this patient in your rural setting? See answer

and discussion on [page 99](#).

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"Country cardiograms" is a regular feature of the Canadian Journal of Rural Medicine. In each issue we will present an electrocardiogram and discuss the case in a rural context. Submit cases to Dr. Jim Thompson, Canadian Journal of Rural Medicine, Bag 5, Sundre AB T0M 1X0 (email [jthompso@agt.net](mailto:jthompso@agt.net)).

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## The occasional skin graft

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Can J Rural Med 1996; 1 (2): 83-85

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## Introduction

Fingertip injuries are a common presentation in all emergency departments, particularly those in busy urban casualty wards, where plastic surgery is usually readily available.

Rural emergency departments see fewer patients, so fingertip injuries are less frequently encountered by individual general practitioners. Many types of finger injuries are complicated enough to demand plastic surgery consultation, regardless of travel and other inconvenience to the patient, but repair of clean avulsions of the fingertip that do not involve bone exposure or fracture is relatively simple and does not require extensive practice or maintenance of competence. Furthermore, the rare complications (e.g., failure of the graft to take) are easily fixed and usually do not involve an increase in the time to healing. This article illustrates step by step a split-thickness skin graft of a simple fingertip avulsion, a procedure often done by junior surgery residents or interns at major teaching centres and well within the reach of rural general practitioners.

The first thing to remember is that simple fingertip avulsions will heal with no treatment other than bandaging. However, in most cases, this healing takes time, as long as 6 to 8 weeks, and the new tissue is fragile. A split-thickness skin graft does not usually improve the end result but will greatly accelerate the healing time, thus allowing much earlier return to full function of the finger. The entire procedure, even without practice, takes about 20 to 30 minutes and can be delayed if other matters in the emergency department are pressing.

Also take note that if the avulsed tip is brought in with the patient, no donor graft is needed. Simple defatting and scraping of the avulsed segment, followed by suturing, as described here, will suffice.

The following criteria should be met before proceeding:

- the fingertip avulsion does not involve fractured, exposed or thinly covered bone
- the patient does not have severe vascular disease such as Raynaud disease or white hand syndrome
- follow-up is feasible.

The accompanying illustrations would not have been possible without the cooperation of the Department of Anatomy, McGill University, Montreal. It should also be noted that with the current trend of replacing cadaver programs in anatomy departments with CD-ROM resources, it will become more difficult to prepare this type of teaching tool.

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## Materials

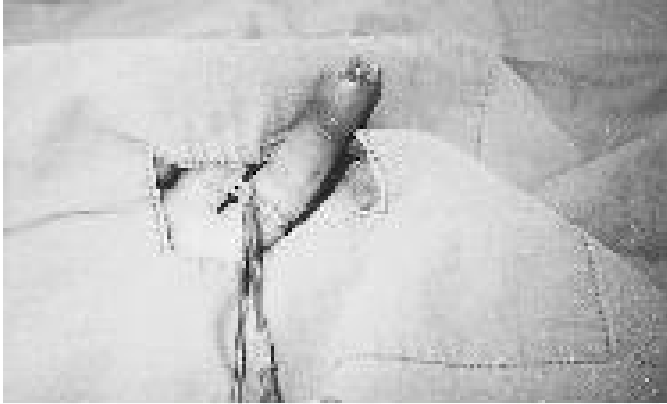
The following materials are needed:

- regular emergency department suture tray
- "plastics pack," including small forceps, small iris scissors and straight scissors, small needle driver, and small straight and curved hemostat forceps ("mosquitoes")
- 2% lidocaine without adrenaline
- topical antiseptic
- sterile rubber band
- dermatome blade or sterile razor blade
- dressing material
- 5-0 nylon on a small needle
- lubricated gauze.

[\[Table of contents\]](#)

## Procedure

Step 1. Properly prep and drape the injured hand and finger. Put in a digital ring block in the usual fashion, using 2% lidocaine. A sterile rubber band tourniquet can be applied later when the graft is ready.



### Step 1

Step 2. Prepare the donor site (the volar aspect of the forearm; very superficial veins should be avoided). Shave and prep the skin, and raise a square intradermal weal (as in a tuberculosis skin test) using lidocaine and a 1.5" 25-gauge needle. The square should be roughly twice the size of the intended graft.



### Step 2

Step 3. Using the dermatome blade and a little mineral oil, slice a thin piece of skin larger in area than the intended graft. The lidocaine intradermal weal will ensure that the sample is thin. Split-thickness grafts incorporate all of the epidermis and variable parts of the dermis. Since the dermis is about 20 times thicker than the epidermis, graft thickness will vary; however, precise uniformity is not important for this type of operation. A sterile razor blade, cut in two lengthwise and held in a hemostat, will do just as nicely for this step of the procedure. A complete dermatome is ideal, but the technique takes some learning and the equipment is expensive unless

it is to be used in other procedures.



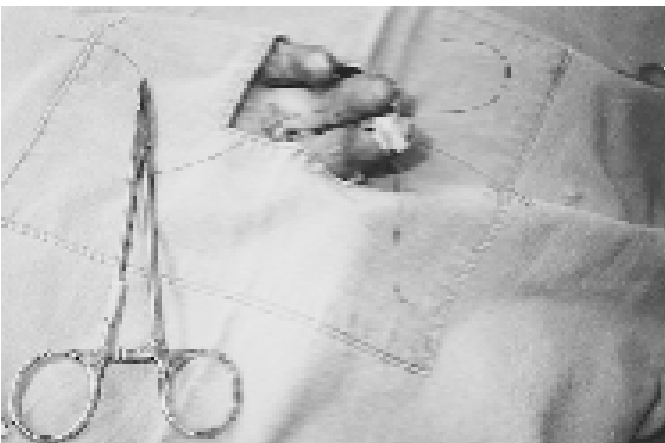
Step 3

Step 4. The excised skin will be ragged at the edges and too large. It should be fitted and trimmed. This is the time to place the rubber band tourniquet and to scrub, clean and debride the graft site.



Step 4

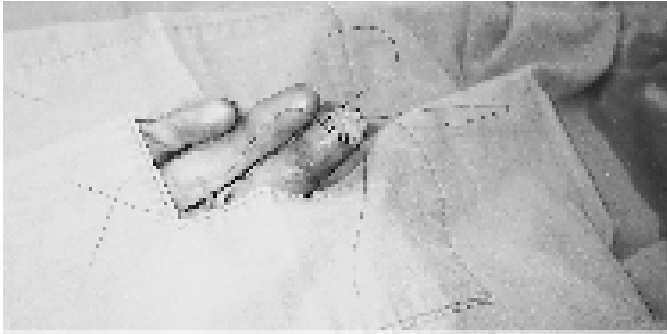
Step 5. Suture the graft to the recipient site at four opposing "corners," leaving one end of the cut sutures 5 to 10 cm long at each knot site.



Step 5



Step 6. Suture the remaining edges of the graft to the recipient site, cutting the sutures short. The graft will contract slightly, so it is advisable to trim the graft such that it is larger in diameter (by 1 to 2 mm) than the wound. The fingernail can be trimmed and sutured through, if necessary.



Step 6

Step 7. Cut a piece of lubricated gauze and fold it over to form a thick pillow approximately the size of the graft. Tie it down over the graft using the four longer sutures placed initially. This serves to put pressure on the graft against the recipient site, thus preventing hematomas and helping the graft to take.



Step 7

Step 8. Remove the tourniquet and dress the graft with a pressure dressing. The donor site can be dressed as a simple abrasion.

The graft should be inspected in 2 to 3 days to make sure that no infection has set in. The sutures and compressive "pillow" can be removed in 10 days. It is not unusual for the edges of the graft to be black, but this appearance is of no consequence. A good graft "take" will be dusky red over almost the whole site. Only rarely will the entire site be black, in which case the procedure should be repeated, after debridement of the recipient site.



Step 8

[\[Table of contents\]](#)

## Conclusion

This simple procedure will save the patient considerable time, expense and incapacity, as well as giving the rural physician a safe, useful and morale-boosting technique.

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## Rural pearls

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Mount Forest, Ont.

Can J Rural Med 1996; 1 (2): 86

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### Preventing weight bearing in the mentally impaired patient

In my 14 years as a rural physician, I have been exposed to patients with mental impairment in the form of dementia, as well as having had a large group of handicapped patients. While caring for these patients in both the nursing home and the hospital situation, I have had to develop ways of preventing weight bearing in people who have difficulty learning.

Simply tape to the heel, inside the sock, either a hexagonal nut or a roll of tape. The uncomfortable sensation created by the foreign body prevents full weight bearing on the foot. When the patient is not ambulatory, the foreign body is removed to prevent ulceration. The method prevents the patient from bearing the full body weight, and even quite mentally impaired patients, using a walker, can ambulate with partial or no weight bearing on the affected leg. This approach increases the number of mentally impaired patients who can ambulate successfully after major hip fracture and other leg injuries.

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### Colostomy in the mentally impaired patient

Doctors and staff often find it difficult to deal with mentally impaired patients who have colostomies. Some of these patients continually fiddle with the bag, pull it off or play with the contents. I have found a simple technique that solves the problem. Have the patient wear full-length coveralls and either put a lock at the top to keep them zipped up, so that the hands cannot get in to the level of the ostomy bag, or put the coveralls on backwards and zip them up the back. This technique makes management at home of slightly impaired patients much easier for their caregivers and works extremely well in institutional care.

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## Smelly feet

Physicians are often presented with the awkward problem of patients whose feet give off strong odours. The problem can be dealt with by having the patient cleanse the feet nightly with rubbing alcohol. This technique also works for odours in the axilla. The alcohol leaches out the aromatic hydrocarbons that are not removed by water. The technique was introduced to me by a health care aide who had worked with a patient with phenylketonuria who had problems with underarm odour.

Most patients who try the technique are delighted with the results and are relieved to be able to take off their shoes without embarrassment. As a physician who must examine those malodorous feet, I also find it beneficial!

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Focus on Alberta

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Can J Rural Med 1996; 1 (2): 87-89

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Alberta's publicly funded health care system began to experience an extraordinary revolution in April 1995, when massive cutbacks, regionalization, dehospitalization and changes in nonphysician scopes of practice began. Rural medicine in Alberta has been greatly affected, and the number of people potentially touched by these changes is not insignificant.

About 40% of Alberta's 2.5 million people live outside our seven cities.[1] Before April 1995 there were 104 rural hospitals, with a total of 3879 acute-care beds, and approximately 540 rural family physicians, nearly all of whom provided emergency department services for 50% of all emergency outpatient visits in the province.[1,2]

The most important of the sweeping new health care legislation introduced since 1995 was consolidation of Alberta's 120 hospital boards into 17 regional health authorities. The budgets given to the new regional boards for the 1995-1996 fiscal year led to the loss of a significant number of rural acute-care beds and the closure of some rural hospitals, sometimes with little input from local physicians.

Many rural physicians in Alberta felt severely marginalized by the political process that led to regionalization and massive fiscal cutbacks in 1995. The shift of control away from local hospital boards and the failure to consult physicians about matters affecting patient care in their communities seem to have been the two key factors leading to the feeling of marginalization.

A limited survey of 702 rural physicians in Alberta conducted by a group of rural physicians in

1995 (which had a 27% response rate) found that 88% of respondents wanted representation by an identifiable body within the Alberta Medical Association (AMA) (<http://www.agt.net/public/asrm/amasurv.htm>). A similar survey in Ontario also reported that a majority of rural physicians preferred representation by a rural physician organization.[3]

These findings led to the formation of the independent Alberta Section of Rural Medicine (ASRM) at an April 1996 organizational meeting in Banff. The Section has applied to the AMA for formal section status and continues to work for rural physicians in the meantime. The ASRM Web site (<http://www.agt.net/public/asrm/ruralama.htm>) describes the Section's activities.

Alberta Health began funding a new program in 1990 called the Rural Physician Action Plan (RPAP). RPAP is unique in Canada and is similar to a comprehensive program in western Australia.[4] It has brought together government, universities, regional health authorities, medical organizations and municipal governments and is gradually awakening these groups to the realities of rural medicine.

The Alberta program is administered by a predominantly urban multistakeholder steering committee and is gradually becoming more effective and more comprehensive, reaching into all aspects of rural medicine. In the 1996-1997 fiscal year Alberta Health will increase the budget for RPAP from \$1.7 million to \$2.8 million.

RPAP is gradually becoming the comprehensive type of program needed to really make a difference for rural communities and their doctors. So far, RPAP has funded a rural locum program through the AMA, education initiatives through the universities, studies of rural physician recruitment and retention, and a program to help communities recruit rural physicians.[5] However, problems remain: there is too little direct representation from practising rural physicians on RPAP's decision-making committees, and some of the funding appears to be going toward projects that only indirectly address the issues.

An independent evaluation of the RPAP, commissioned by the provincial government in 1995 and released earlier this year, is beginning to influence events.[5] The so-called MacDonald Report concluded that RPAP provided good value to the taxpayers but that the effect of many of the initiatives could not be determined, given the context of rapid change throughout the health care system. The report identified important barriers to implementing changes that would improve rural physician recruitment and retention. These barriers included strained relationships between regional health authorities and rural physicians, anxiety about further cutbacks and the fact that a significant number of rural physicians were thinking about leaving the province.

The MacDonald Report made four suggestions to Alberta Health:

- quickly mobilize the regional health authorities to work with rural physicians
- improve funding and working conditions for rural physicians

- separate urban and rural issues
- address competition from recruiters from the United States.

One consequence of the MacDonald Report is a controversial plan to consider paying rural and urban family physicians differently. Many of the findings of the MacDonald Report are reminiscent of the landmark Scott Report that came out in Ontario last year.[6] Like the Scott Report, the RPAP evaluation is important because it was done by nonphysician, nongovernment authors and was based on interviews with many practising rural physicians.

The MacDonald Report identified many of the same issues that the Scott Report did, issues that rural physicians themselves think are important. It remains to be seen whether this evaluation will have any more real impact in Alberta than the Scott Report has had so far in Ontario.

The two faculties of medicine in Alberta continue to evolve toward the comprehensive model of training for rural medicine recommended by WONCA (the World Organization of Family Doctors) and available at <http://www.cfpc.ca/carmen/woncapol.htm>. RPAP programs at both the University of Calgary (described at <http://www.med.ucalgary.ca/saran/>) and the University of Alberta (described at <http://hippocrates.family.med.ualberta.ca/rpap/rpap.html>) have led to rural physician training programs for medical students and residents and enhancement programs for rural physicians in practice. In addition, rural education is available at training sites in rural communities throughout Alberta. RPAP has been a significant factor in improving rural education in Alberta.

Training in advanced skills for rural family physicians is being developed in Alberta. Both universities train residents in 1-year programs for anesthesia and emergency medicine. The University of Calgary has just developed a 3rd-year program in surgical and obstetric skills intended for graduates of a 2-year family medicine residency program and plans to welcome the first resident to the program in 1997. The University of Alberta has run a 3rd-year advanced skills program in surgery and obstetrics since 1992.

Granting credentials for procedural privileges is a major issue of contention in rural Alberta. Some rural physicians have felt that their ability to introduce new procedural skills to rural communities has been unfairly restricted, which in turn has restricted access to appropriate care for patients. The new regional health authorities are starting to give patient care privileges to rural physicians. In regions where there are both urban and rural physicians this process is leading to debates between urban specialists and rural family physicians about privileges to perform various procedures. The debates seem to be based on contradictory perceptions that each group has about quality patient care, appropriate access to health care and competition for limited resources.

A large number of acute-care beds have been taken out of both the urban and rural sectors of

Alberta's health care system. The impact of this change is still unclear, but we have heard reports that rural physicians are having to keep more acutely ill patients in rural hospitals with fewer resources because urban specialists cannot take them, and urban specialists are less able to transfer patients back to rural hospitals than in the past, because there are fewer rural beds.

The cutbacks and regionalization process have led to problems in recruiting and retaining rural family physicians. Uncertainty, exclusion from decision-making, hospital closures and reduced funding have led to physician departures, and a significant number of the Alberta family medicine residents who completed their residencies last year departed for the United States. International medical graduates have been licensed under special legislative provisions to fill some of the vacant rural positions in several regional health authorities.

The Society of Rural Physicians of Canada (SRPC) is well represented in Alberta, and several Alberta physicians are active in the organization. The University of Calgary hosted the SRPC's national conference in Banff in April 1996 and looks forward to doing the same in 1997 under the leadership of Dr. Cathy Scrimshaw of Pincher Creek. Dr. Hal Irvine of Sundre maintains the SRPC Web site (<http://www.gretmar.com/srp/home.html>). The SRPC's resources and programs have been instrumental in advancing rural medicine in Alberta.

The Alberta Chapter of the College of Family Physicians of Canada (CFPC) increasingly promotes rural physician issues. Dr. David Topps of Airdrie is moderator of CaRMeN (<http://www.cfpc.ca/carmen/>), the CFPC-sponsored rural physician Internet email list. Dr. Robert Wedel of Taber, past president of the Alberta Chapter of the CFPC, is an active proponent of rural medicine in Alberta.

Rural physicians in Alberta are now looking forward to a productive time of stability and renewed development after the storm of change in 1995. The many RPAP and rural physician initiatives underway in Alberta demonstrate that there is a will to ensure that the people of rural Alberta continue to have access to good local health care. Improved recognition of the role that rural physicians must play in all of these initiatives will be a key factor in their success.

World Wide Web resources for organizations and topic mentioned in the article
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The Alberta Health Web sit is at <http://www.health.gov.ab.ca/>, and more information about recent legislation in Alberta can be found at <http://www.health.gov.ab.ca/annual-5.htm>.

A review of the MacDonald Report can be found at <http://www.agt.net/public/asrm/rpap.htm>.

More information about recent physician losses from Alberta is available at <http://www.amda.ab.ca/mpinfo/newrel/execsum.htm>.

The Web site of the Alberta Medical Association can be found at <http://www.amda.ab.ca/>.

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The Trenches: Life In

Martin Benfey, MD

Can J Rural Med 1996; 1 (2): 92

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Sure the Front can be pleasant; when all is quiet.  
You may chat and smoke but rather wish,  
You were at home with your wife, your children.  
Gardening, perhaps, on such a fine sunny day.  
Screaming, without warning, the shelling starts.  
Again.  
Instead of heeding the impulse to flee, AWOL,  
You press forward to heal the wounded.  
When suddenly overwhelmed.  
In the deepest shit with the sickening sensation,  
Of sinking.

With a silent gasp reinforcements are called,  
And together the team works.  
Comrades in arms.  
And now this day is done, and a small battle won,  
Your colleagues nod and say "good job."  
Happy that, today, not they but you were the one.  
In the line of fire.  
Later, instead of a medal the government refuses pay,  
Insisting: "Justify your action." Justify your presence.  
"Give us the code." They say.  
(What code to save a life?)  
And to think that you volunteered to serve,  
In the trenches.

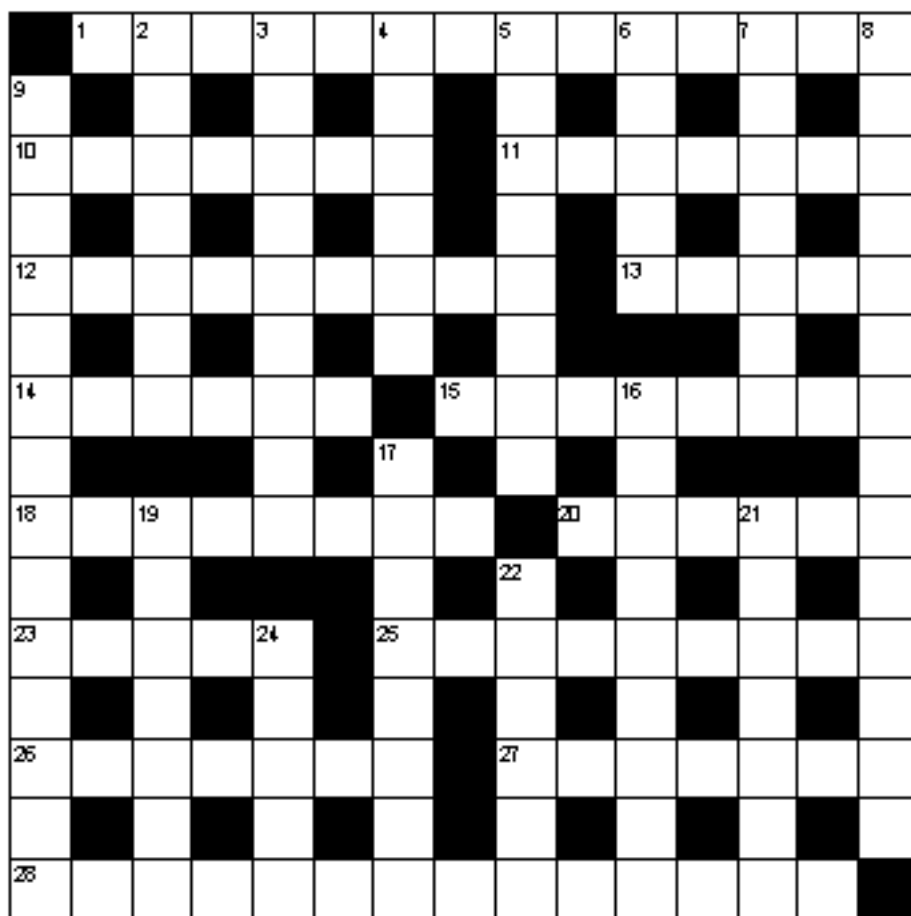
Elke Bzdurreck-Benfey



## Cryptic crossword

Lee Teperman  
Charteris, Que.

Can J Rural Med 1996; 1 (2): 93



## Clues

### Across

1. Healthy, though everything in Quebec must be considered (4-7-3)
10. Weakness I intend to turn into self-help group (7)

11. Body of people contracting polio with indication of Tourette syndrome (7)
12. The drugs a doctor gives children (9)
13. Prognosticator who is rejected by Liberal (5)
14. Denote changes in knowledge base? (4,2)
15. Type of pill for one man given lots of shots (8)
18. Cure for the common cool carried by the medium cool (8)
20. Chief of three elements found in water (6)
23. Firm parent's profound nods? (5)
25. Blood factor in sheep contained in drink (5,4)
26. Publishing that is followed by litigation (7)
27. "Just beat us" to one badly beaten (4,3)
28. Stopper in the hand equal to obstetrics in the bushes? (9,5)

## Down

2. Rescission, to use rare forms (7)
3. Itchy palm belies this body system (9)
4. Doctor with her bottled drink (6)
5. Outspend wildly on things not billed (8)
6. Hospital problems answered by upgrades (5)
7. Time of havoc, to be really obvious (7)
8. Happy to have had the last laugh? (7,2,5)
9. Grace MD in China deployed as a tool of the Industrial Revolution (7,7)
16. Cultivated roses or PC hardware! (9)
17. Hormone representing no danger (8)
19. Medical examiners in First Nation territory (7)
21. Wind that finds small crack to loves' armour (7)
22. Organ to play on, say, a bender (6)
24. Hang needed to play golf? (5)

Answers to the cryptic crossword appear on [page 95](#).

For [instructions on how to tackle a cryptic crossword](#), please see the first issue of CJRM (1996;1:34-5) or correspond with Lee Teperman, RR 5, Shawville QC J0X 2Y0; email [bullhits@infonet.ca](mailto:bullhits@infonet.ca).

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Kudos for the first issue of CJRM

Can J Rural Med 1996; 1 (2): 61-62

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Congratulations to the Society of Rural Physicians of Canada on this excellent new journal. I hope it will alert your community to the concerns of a weary corps of rural doctors.

The answer to many of our common problems lies in such areas as education and psychosocial support.

Education is vital, and we need to ensure that it is integrated into our practices from the moment we leave school until the day we retire. Rural doctors need to be involved actively in the selection and the curriculum of undergraduate doctors, in the training of rural physicians through hospital and practice segments, and in the selection of appropriate continuing medical education, including control over the accreditation and recertification processes. If we are to be effective we have to work for involvement in these vital areas.

Finally, rural medical practitioners and their families need a lot of support. Research is needed into retention strategies to reduce the high attrition rates that are wasteful of the money spent on education and training of rural physicians.

I urge all those who want to see an adequate rural medical workforce of happy, functioning, rural doctors in happy, functioning, rural communities to involve themselves in working to achieve these objectives.

Digby Hoyal, MD  
President  
Rural Doctors Association of Australia

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Congratulations on the publication of the first issue of the Canadian Journal of Rural Medicine. It's another step forward in providing recognition, support and continued education for those physicians and other health care professionals who look after the health care needs of Canadians

in rural and remote settings. Although difference in setting is not usually a factor in most diseases, there are real differences in the level of responsibility taken by rural physicians, who have limited access to consultants and other back-up and diagnostic facilities compared with their urban colleagues. Some situations, such as industrial accidents related to mining, fishing and logging, occur only in rural settings.

The Department of Family Practice at the University of British Columbia trains residents to identify both their own educational needs and the health care needs of the community. For those physicians who plan a career in rural medicine, emphasis is placed on hands-on learning, together with experienced preceptors who understand rural health care needs.

We have developed opportunities for enhanced-skills training for family physicians in obstetrics, anesthesia, psychiatry, surgery and emergency medicine. A member of our department also coordinates continuing medical education, via teleconference, across rural British Columbia.

I anticipate that your journal will become a vehicle for the publication of research done in rural settings, which will add to our knowledge base in family medicine. Your journal can help these dedicated physicians to maintain and further develop both relevant knowledge and skills.

Carol Herbert, MD, CCFP, FCFP  
Royal Canadian Legion Professor and Head  
Department of Family Practice  
University of British Columbia  
Vancouver, BC

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Congratulations to you, your editorial board and the Society of Rural Physicians of Canada (SRPC) on the publication of the première issue of the Canadian Journal of Rural Medicine. As a rural practitioner, I was gratified to see a publication that addresses issues specific to our practice setting, as well as issues that we have in common with our urban colleagues, viewed from our unique perspective. I enjoyed Jim Thompson's "[Country cardiogram](#)"; not only was this article instructive academically, but it brought out vividly the decision cascade that we all must add to our patient care regimens related to isolation and the weather. [Dr. Iglesias's proposal for ambulatory epidural analgesia](#) is sure to further the discussion of this important topic.

In the Teaching Practices Program at the University of Toronto we actively promote rural practice as a career choice, and this publication will help us to further that goal. [In Ken Babey's "Focus on Ontario,"](#) he reports that the results of the SRPC survey in January included the preference of 74.8% of respondents to have the SRPC manage the CME program for rural practitioners. It makes good sense that the consumers should control the product to ensure that it

meets their perceived needs. I'm sure that departments of family practice across the province would enthusiastically support such an initiative and collaborate in the development of CME programs if invited to do so.

I look forward to future issues of this journal and know that it will be one of the few that actually gets read from cover to cover soon after arriving.

Bob Henderson, MD, CCFP, FCFP  
Chair, Teaching Practices Division  
Department of Family and Community Medicine  
University of Toronto  
Toronto, Ont.

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Please send us your comments and opinions. Letters to the editor should be addressed to:  
Canadian Journal of Rural Medicine, Box 1086, Shawville QC J0X 2Y0; email  
[cjrm@fox.nstn.ca](mailto:cjrm@fox.nstn.ca); fax 819 647-2845

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Literature

Can J Rural Med 1996; 1 (2): 80-81

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Why patients bypass rural health care centres. Rieber GM, Benzie D, McMahon S. Minnesota Medicine 1996; 79 (6): 46-50.

To survive in the US context, many rural hospitals must be able to attract patients. According to this study, many such hospitals are "financially strained, and in danger of closing." One apparent factor is the tendency of some rural residents to bypass their local facility and seek care in larger urban medical centres.

The authors surveyed the residents of two communities in rural Minnesota to assess the reasons why they might choose to do this, in spite of longer travel distances. They found that patients had the perception that "bigger is better, and that smaller, rural medical facilities are unable to keep up with technology."

Although rural residents felt that the primary care provided in rural areas was "more compassionate and accessible" than in urban areas, they also felt that "rural physicians are less qualified."

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Long distance transmission of diagnostic cardiovascular information. Caldwell MA, Miles R, Barrington W. Biomedical Sciences Instrumentation 1996; 32: 1-6.

The perception, noted by Rieber and associates (see preceding item), that rural medical facilities are less technologically advanced may be modified over time by the widespread introduction of telemedicine projects such as the one described by Caldwell and coworkers. They report on a project in which the University of Nebraska Medical Center provided a rural hospital with advanced cardiology services. These services consisted of the long-distance transmission of cardiac diagnostic tests, as well as the remote monitoring of in-patients.

Cardiac ultrasound images were transmitted for interpretation, as were 12-lead and ambulatory electrocardiograms. The system had the ability to send both digital and analogue data, as well as

static images and 30 fps video. The authors note that in addition to increasing the availability of these services to rural general practitioners, this system "has significantly reduced the time and cost to transmit vital cardiac diagnostic information, thus improving the quality of care received by rural patients."

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The Finnmark general practitioner hospital study. Patient characteristics, patient flow and alternative care level. Aaraas I. *Scandinavian Journal of Primary Health Care* 1995; 13 (4): 250-6.

The organization of health services in Norway includes general practitioner hospitals (GPHs), which provide an intermediate level of care and from which patients are either referred to higher-level hospitals or sent home after treatment. This organization is similar to the relationship between rural community hospitals and urban secondary and tertiary level hospitals in Canada.

The study assessed the role played by GPHs and found that over the 8 weeks of the study, 60% of patients were admitted, treated and discharged from these units (mean length of stay 6.8 days). Nineteen percent were transferred to a higher-level hospital (mean length of stay 3.6 days) and 9% were transferred to GPHs from other hospitals and stayed a mean of 22.3 days. In the judgement of the investigators, 61% of those discharged from GPHs would have required admission to a higher-level hospital, and it was therefore concluded that "the GPHs have a . . . buffer function by preventing patients with acute symptoms from being unnecessarily admitted to [higher-level] hospitals."

The role of these hospitals in providing services in "long-term follow-up care" for patients transferred to them for convalescence following treatment at a general hospital was also noted.

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An educational needs assessment of rural family physicians. Norris TE, Coombs JB, Carline J. *Journal of the American Board of Family Practice* 1996; 9 (2): 86-93.

In response to the persistence of shortages in the supply of physicians to rural and underserved areas of the United States, the authors attempt to define a set of educational needs that, if satisfied, might produce a physician more suited to, and more comfortable in, rural practice.

The study was carried out by surveying 1096 family physicians who had entered rural practice within the last 3 years. The response rate was 57%. The physicians were asked about the "appropriateness and adequacy of their educational process in preparing them for rural practice."

The authors were able to define a group of items that these recent graduates felt had been inadequately addressed in training programs. These included "counselling, pediatrics, obstetrics and gynecology, geriatrics, surgery and trauma, medical specialties, surgical specialties,

community medicine and management, and a mixed factor that included rehabilitation, behavior sciences, learning disabilities (in children), chronic childhood problems, and human growth."

The authors conclude that it is possible to define the educational needs of rural practitioners; that these needs are not being met by standard family practice curricula; and that "if preparation for rural practice is improved, rural communities might be more successful in recruiting and retaining well-trained family physicians."

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## Caring for friends and family in rural practice

Can J Rural Med 1996; 1 (2): 94-95

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In April of this year, RuralMed stumbled almost by accident onto an instantly recognizable feature of rural medicine that had not, it appears, been previously highlighted as a particular characteristic of rural practice.

It all started with a posting in which a physician described his experiences as a physician/husband/son during a series of serious illnesses in his family. From medical colleagues, house staff and nurses, he experienced both suspicion and hostility about his involvement, as well as (although less frequently) understanding and support. In dramatic fashion he raised the issue of what may happen when physicians are involved in the care of members of their own family and he confronted the taboos that surround this subject. Although not a rural physician himself, he suggested that variants of his experience might be common in rural practice.

Numerous rural physicians responded with anecdotes of their own, the most telling related by a rural surgeon who, being the only one trained in laparoscopic surgery in his rural community, chose, with his colleagues' support, to operate on his wife's ruptured ectopic pregnancy rather than subject her to a hazardous 4-hour transfer or accept a less than "gold standard" form of treatment. He found widespread support and understanding among his rural colleagues for his decision but reported being the subject of his College's censure for his actions.

Many participants in the discussion felt that there exists in urban circles a lack of understanding of the reality of this aspect of rural practice. It was also pointed out by one research-minded contributor that although the subject provoked many opinions, little research has been done in the rural setting. Lynn Dunikowski, the librarian for the College of Family Physicians of Canada, contributed the following references:

- Reagan B, Reagan P, Sinclair A. 'Common sense and a thick hide'. Physicians providing care to their own family members. Arch Fam Med 1994;3(7):599-604.
- La Puma J, Priest ER. Is there a doctor in the house? An analysis of the practice of physicians' treating their own families [review]. JAMA 1992;267(13):1810-2.

Rural doctors caring for family and friends seems to be a topic worth further study in the rural setting. Specifically, the following research topics were suggested:

- What is the frequency and variety of "involved care" in rural and urban practice?
- If it is frequent enough to provide meaningful data, what are the outcomes of "involved care" compared with "non-involved care"?
- What is the impact of the doctor-friend of the patient on outcome when the main care source is "non-involved care"?
- How does the care a physician receives differ from the "usual" care?

Several respondents felt that the experience of dealing with the medical problems of friends and family, although stressful, was not entirely negative. One commented, "It took me a while to finally feel comfortable in these situations and to realize that I could still be reasonably objective in my medical care. In fact I think these situations have helped me to see my patients in the context of their real life and provide better care than otherwise."

Whether rural physicians like it or not, they will find themselves confronted by this experience more frequently, and for more serious conditions, than their urban counterparts. Whether this is good or bad is perhaps not the issue for now. We need to explore the terrain. We may find out something new. If RuralMed has sown the seeds of some good ideas, it is doing its job.

Editor's note: Sometime in May, RuralMed passed the 200-subscriber mark. Although this is not yet in the same league as snow geese at Cap Tourment in the spring, it represents a significant new resource at the disposal of rural physicians worldwide.

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To participate in RuralMed you must be able to send and receive email. Subscription is by request to the listowner. Simply send a message to Dr. John Wootton at the following address: [jwootton@fox.nstn.ca](mailto:jwootton@fox.nstn.ca)

Please provide your email address and your full name. If you include a short paragraph about your interest in rural medicine, this will be posted to the list as your introduction. You can also access a subscription form on the World Wide Web via University of Calgary Department of Family Medicine home page at: <http://hippocrates.family.med.ualberta.ca/medical/rmform.html>

RuralMed is archived by WebDoctorTM, a Canadian Internet Web site run by Gretmar Communications. Old messages can be retrieved at: <http://www.gretmar.com/srp/home.html>

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Practical tips for rural family physicians teaching residents

Table 1. Modified Pendleton's rules[19] for videotape and direct observation review.

1. Clarify	Ask for clarification of information and feelings as necessary.
2. Good points first	Ask the resident what he or she did well. Tell the resident what you observed that was done well.
3. Areas to improve	Ask the resident to identify what he or she had difficulty with and what could be improved. Provide specific suggestions for improvement.
4. Constructive summary	Mutually develop a constructive summary.

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Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

Table 1. Number and percentage of responses for questions concerning the use, legislation, reading and development of clinical practice guidelines (CPGs)

Question	No. of respondents*	Response; number (and percentage) of respondents					
		Yes		No		Unsure	
Would you use CPGs in your practice?	135	89	(65.9)	6	(4.4)	40	(29.6)
Do you think government should legislate CPGs?	136	17	(12.5)	104	(76.5)	15	(11.0)
Have you ever read a CPG for a particular disease?	135	98	(72.6)	33	(24.4)	4	(3.0)
If yes, did reading the guideline affect your practice?	101	49	(48.5)	36	(35.6)	16	(15.8)
Do you think family physicians should be involved in the development of CPGs?	135	129	(95.6)	1	(0.7)	5	(3.7)

\*Although 137 physicians responded to the survey, not all respondents answered every question.

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Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

Table 2. Physicians' estimation of how CPGs would affect knowledge of and ability to diagnose and treat a particular disease

Question	No. of respondents*	Response; number (and percentage) of respondents				
		Improve a lot	Improve	No change	Worsen	Worsen a lot
How would CPGs affect your knowledge of a disease?	134	8 (6.0)	72 (53.7)	53 (39.6)	1 (0.7)	0 (0)
How would CPGs affect your ability to diagnose a disease?	133	6 (4.5)	50 (37.6)	76 (57.1)	1 (0.8)	0 (0)
How would CPGs affect your ability to treat a disease?	133	8 (6.0)	74 (55.6)	48 (36.1)	3 (2.3)	0 (0)

\*Not all 137 respondents answered every question.

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Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

Table 3. Attitudes about the perceived effects of CPGs on flexibility in dealing with patients, use of clinical skills and legal implications

		Response; number (and percentage) of respondents				
Question	No. of respondents*	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
CPGs reduce flexibility in dealing with patients	136	22 (16.2)	68 (50.0)	18 (13.2)	28 (20.6)	0 (0)
CPGs do not allow physicians to use their clinical skills and experience	134	18 (13.4)	46 (34.3)	19 (14.2)	49 (36.6)	2 (1.5)
I am concerned about legal and malpractice issues	136	30 (22.1)	73 (53.7)	18 (13.2)	15 (11.0)	0 (0)
CPGs accurately reflect optimal diagnosis and treatment	134	4 (3.0)	41 (30.6)	42 (31.3)	42 (31.3)	5 (3.7)

\*Not all 137 respondents answered every question.

Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

Table 4. Spearman rank correlational analysis for pairs of statements or questions for which there was significant concordance or agreement with respect to responses

Statement or question pairs			Spearman rho	p
CPGs reduce flexibility in dealing with patients	and	CPGs do not allow physicians to use their clinical skills and experience	0.66	<0.001
Had read a CPG	and	Had used a CPG in practice	0.15	<0.04
Had used a CPG in practice	and	Family physicians should be involved in CPG development	0.18	<0.025
CPGs accurately reflect optimal diagnosis and treatment	and	CPGs would affect ability to diagnose a disease	0.45	<0.001
CPGs accurately reflect optimal diagnosis and treatment	and	CPGs would affect ability to treat a disease	0.47	<0.001

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Attitudes of rural family physicians to clinical practice guidelines: a cross-sectional survey

Table 5. Spearman rank correlational analysis for pairs of statements or questions for which there was significant discordance or disagreement with respect to responses

Statement or question pairs			Spearman rho	p
CPGs reduce flexibility in dealing with patients	and	CPGs accurately reflect optimal diagnosis and treatment	-0.28	<0.002
CPGs do not allow physicians to use their clinical skills and experience	and	CPGs accurately reflect optimal diagnosis and treatment	-0.34	<0.001
CPGs accurately reflect optimal diagnosis and treatment	and	Concerned about legal and malpractice issues	-0.22	<0.007
CPGs reduce flexibility in dealing with patients	and	CPGs would affect knowledge of a disease	-0.35	<0.001
CPGs reduce flexibility in dealing with patients	and	CPGs would affect ability to diagnose a disease	-0.32	<0.001
CPGs reduce flexibility in dealing with patients	and	CPGs would affect ability to treat a disease	-0.26	<0.002
CPGs do not allow physicians to use their clinical skills and experience	and	CPGs would affect knowledge of a disease	-0.37	<0.001
CPGs do not allow physicians to use their clinical skills and experience	and	CPGs would affect ability to diagnose a disease	-0.28	<0.002
CPGs do not allow physicians to use their clinical skills and experience	and	CPGs would affect ability to treat a disease	-0.42	<0.001
Concerned about legal and malpractice issues	and	CPGs would affect ability to treat a disease	-0.17	<0.03

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Country cardiograms case 2: Wolff-Parkinson-White syndrome

Can J Rural Med 1996; 1 (2): 99-100

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See: [Country cardiograms case 2](#)

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Findings

This young man's electrocardiogram (ECG) was no longer normal. It showed features typical of Wolff-Parkinson-White (WPW) syndrome. The PR interval had shortened to less than 120 ms, the QRS diameter had widened to greater than 120 ms, and a delta wave was slurring the upstroke of the R wave in leads V2 and V3. The prominent R wave in V1 is characteristic of WPW syndrome; it had appeared in previous ECGs for this patient but had been reported as a normal variant.

The patient had a WPW accessory pathway in his heart between the atria and the ventricles, which bypassed the atrioventricular (AV) node ([Fig. 1](#)). The ECG had been normal for several years before this presentation because conduction had been occurring normally down the usual pathways from the sinoatrial node to the AV node, the accessory pathway being electrocardiographically silent.

The abnormal ECG was obtained on a day when the accessory pathway was active. Conduction was occurring from the atria directly into the ventricular tissue, without going through the AV node first. The delta wave occurred because the accessory pathway terminated directly in ventricular tissue, and part of the ventricular tissue depolarized early (pre-excitation), shortening the usual PR interval. Therefore, the ECG did not show the PR interval refractory period normally produced by the AV node. The QRS complex was widened because ventricular depolarization was occurring more slowly than if conduction had occurred rapidly down the normal conduction fibres.

Discussion

WPW syndrome is not a common diagnosis in rural practice. The annual incidence of new cases in an urban community is about 1 in 25 000 persons.[1] We have encountered this condition less

than half a dozen times in the past decade in Sundre, Alta., where we have about 6000 visits per year to our emergency department and about 25 000 visits per year to the offices of the five rural physicians. I found only 2 cases in 1281 consecutive ECGs obtained in our rural community (a rate of 1 in 640),[2] similar to the 1 in 650 proportion reported by Marriott[3] for an urban centre.

In spite of being rare in the population as a whole, accessory pathways are present in about 30% of cases of paroxysmal supraventricular tachycardia (PSVT).[4] Consequently, WPW is a concern every time a patient presents with tachycardia. Two common agents for treating PSVT, verapamil and digoxin, can accelerate conduction down the accessory pathway into the ventricles, particularly in WPW atrial fibrillation, producing ventricular fibrillation.

Patients with WPW syndrome commonly present to the emergency department with narrow-QRS PSVT, caused by normal downward conduction from the atria to the AV node. The upward re-entry conduction occurs back into the atria through the accessory pathway. Verapamil can terminate, effectively and safely, PSVT in patients with WPW syndrome who have this kind of conduction, although even in these cases there is a theoretical risk of triggering ventricular fibrillation. We have discovered that over the past decade we inadvertently treated with verapamil two patients who had silent WPW accessory pathways, without adverse effects. However, adenosine and procainamide are safer.[4]

Rarely, patients with WPW syndrome may present with wide-complex tachycardia, caused when downward conduction to the ventricles occurs through the accessory pathway. The upward re-entrant conduction occurs back into the atria through the AV node. Verapamil can cause this arrhythmia to degrade into ventricular fibrillation.

About 10% to 30% of arrhythmias in WPW syndrome are atrial fibrillation and therefore are irregularly irregular.[5] Atrial fibrillation in WPW syndrome can occur with narrow, wide or mixed-width QRS complexes. When the tachycardia is very fast, it can be difficult to differentiate atrial fibrillation from supraventricular tachycardia. As explained previously, verapamil and digoxin are contraindicated in atrial fibrillation when a WPW accessory pathway is present. Fortunately, rural physicians will face this problem only rarely, since the great majority of atrial fibrillation is not due to WPW syndrome. However, WPW syndrome is a distinct possibility in cases of atrial fibrillation in younger patients and in patients with wide or mixed-width QRS complexes.

Antiarrhythmic agents such as flecainide, propafenone and amiodarone slow accessory pathway conduction; therefore, they probably have a role in the management of WPW syndrome.[6] As electrophysiologists learn more about them, these newer antiarrhythmic agents are likely to appear in rural hospital formularies and Advanced Cardiac Life Support protocols.

Patients with WPW syndrome can experience supraventricular tachycardia, atrial fibrillation and sudden death.[7] Interestingly, about one in eight people with WPW syndrome eventually loses

any ECG evidence of the accessory pathway.[1] For this reason, and because the risk of sudden death is extremely low in asymptomatic patients, asymptomatic young patients are usually not treated.[8]

Radiofrequency ablation of the accessory pathway is now considered the initial nonpharmacologic treatment of choice for symptomatic patients.[6] The procedure is quick, involving little or no anesthesia, and frees the patient from lifelong medication.

This young man's cardiologists decided to give him sotalol, and they will ablate the accessory pathway when he turns 18 years of age. The patient was advised to wear an alert bracelet, so that he could be treated appropriately if he presented with arrhythmia in the meantime.

## References

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Country cardiograms case 2: Wolff-Parkinson-White syndrome

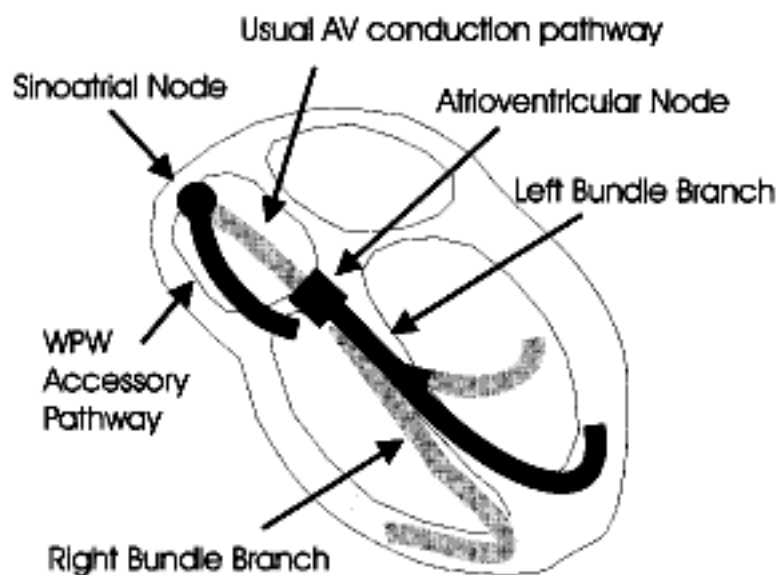


Fig 1. Diagrammatic representation of the heart showing the Wolff-Parkinson-White (WPW) accessory pathway and the normal atrioventricular conduction pathway.

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## Cryptic crossword solution

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### Across

1. Well-thought-out
10. Anaemia
11. Politic
12. Daughters
13. Sibyl
14. Need to
15. Peppered
18. Medicine
20. Honcho
23. Comas
25. Rhine wine
26. Issuing
27. Nose out
28. Emergency brake

### Down

2. Erasure
3. Lymphatic
4. Healer
5. Unposted
6. Hills
7. October
8. Tickled to death
9. Carding machine
16. Processor
17. Androgen
19. Demesne
21. Chinook

22. Kidney

24. Swing.

[\[Return to crossword\]](#)

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