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Practical tips for rural family physicians teaching residents

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[résumé]

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Abstract

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.

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.1-11 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.[12-16]

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.9 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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