Integrating family medicine residents into a rural practice

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ABSTRACT

PROBLEM Integrating residents into community family practices can be challenging for busy doctors, especially when new preceptors have no formal preparation or teaching experience.

OBJECTIVE OF PROGRAM To develop an organized and practical approach to teaching residents in our busy rural group practice. Our seven northern Ontario family doctors have been training elective residents and clerks for 15 years. Recently, we have gone from hosting elective residents and students to teaching core family medicine residents. Our precepting plan allows us to dedicate a reasonable time to teaching while fulfilling our primary care duties.

MAIN COMPONENTS The program involves contracting, teaching, monitoring, feedback, and evaluation.

CONCLUSION We think we have developed a sustainable, workable set of teaching parameters that is applicable by various preceptors in different settings. It has simplified our teaching role and lessened our anxieties. Residents have benefited from the consistent protocol, which can be flexible enough to adapt to individual residents and preceptors, and have valued this teaching approach.

RÉSUMÉ

PROBLÈME L'intégration des résidents dans les pratiques communautaires soulève des difficultés pour des médecins dont l'emploi du temps est chargé, surtout si les nouveaux précepteurs n'ont pas reçu de préparation formelle ou n'ont aucune expérience de l'enseignement.

OBJECTIF DU PROGRAMME Élaborer une approche organisée et pratique qui permet à notre groupe oeuvrant en milieu rural de s'impliquer dans la formation des résidents malgré notre charge de travail. Nos sept médecins de famille du nord de l'Ontario offrent des stages électifs prédoctoraux et postdoctoraux depuis 15 ans. Récemment, nous avons dépassé le stade des stages électifs offerts aux étudiants et aux résidents pour nous impliquer dans la formation de base des résidents en médecine familiale. Notre plan de préceptorat nous permet de consacrer une partie raisonnable de notre temps à l'enseignement tout en ne négligeant pas nos responsabilités dans les soins de première ligne.

PRINCIPALES COMPOSANTES Le programme comporte l'établissement d'un contrat pédagogique, l'enseignement, la surveillance, la rétroaction et l'évaluation.

CONCLUSION Nous croyons avoir développé un ensemble viable et réalisable de paramètres d'enseignement qui sont applicables dans différents contextes par divers précepteurs. Ces paramètres ont simplifié notre rôle d'enseignant et apaisé nos anxiétés. Les résidents tirent profit de ce protocole cohérent qui offre suffisamment de souplesse pour s'adapter aux besoins individuels des résidents et des précepteurs, et apprécient cette approche à l'enseignement.

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Integrating family medicine residents into a rural practice

The Canadian health care system often has difficulty providing primary medical care services in outlying regions.[1-3] Studies have shown that residents tend to settle and practise in places where they have trained rather than their places of origin.[4] The Ontario government has supported two northern family medicine residency programs to help attract practitioners to the north. As a result, busy rural physicians, whose duties often include emergency care and obstetrics, are becoming increasingly involved in teaching.

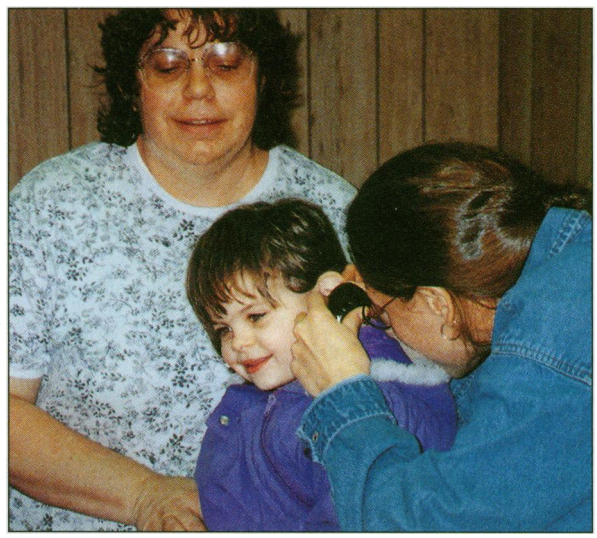
This article describes a program for teaching family medicine residents that has been developed in a busy rural setting where family physicians have heavy clinical responsibilities and little specialist backup. The program has grown out of our experience, and while it is not based on any particular teaching format, it does follow many of the precepts of adult education.[5] There is little literature dealing with integrating residents into practice. As family medicine residency programs expand into community practices and rural regions, the challenge of juggling patient care and teaching responsibilities will become more common.

Our group practice in Sioux Lookout was faced with this challenge. In response to our interest in (and anxiety over) how to provide a valuable learning experience, we developed the straightforward and practical approach outlined below. It has enabled us to continue to care for our patients and deal with family medicine residents in an organized manner. Our framework involves contracting, teaching, monitoring, feedback, and evaluation (**Table 1**).

Family Medicine North

The Family Medicine North (FMN) program based in Thunder Bay is one of two northern family medicine programs in Ontario. It is affiliated with the Department of Family and Community Medicine at McMaster University and with Lakehead University. The 12 residents we train each year spend at least 6 months of their 2 years in small (population 3000 to 10000), rural communities. Of our first three graduating classes, 80% are now working in northern or small communities.

Sioux Lookout is one of these communities, and we have been teaching for the last 15 years. The family doctors in our group had all enjoyed teaching elective students and residents before development of FMN. The Northwestern Ontario Medical Program, based in Thunder Bay, serves as a collegial association of more than 150 physicians interested in teaching. Elective residents and clinical clerks typically come to our community for 1-month stints. These trainees are usually somewhat self-selecting, and we generally have keen learners, eager for whatever clinical experience they can garner. We are responsible for their medical experience and, generally, we find that supervising and evaluating them is not onerous.



Dr Alex Farrugia, a second-year resident in the Family Medicine North program, participates in a weekly outreach clinic in Savant Lake, Ont, a small settlement 140 km north of Sioux Lookout.

When the FMN program began in 1990, we became preceptors in core family medicine rotations. All of us had been residents in family practice units in larger centres. We thought back to our training in established Canadian family medicine programs and drew on those experiences, realizing that this was our opportunity to design a learning experience that suited our community, our medical practice, and our desire to create an excellent teaching and learning situation.

In the ensuing months, we thought about the academic program,[6] spoke with people in other teaching programs, and used an informed trial-and-error approach. Our practice is organized but never predictable. We therefore approach our guidelines in a flexible manner, as patient care is our primary responsibility and time does not always allow us the educational opportunities we desire.

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Contracting

When residents arrive, they bring baggage: a car full of books, clothes, other family members, and sometimes pets. Some practical issues must be worked out, and we are available when they arrive to help out if necessary. Residents have already been contacted about directions and housing.

We give residents a four-page written introduction to our group, which they keep at home. It gives names and phone numbers, an outline of how things generally run, on-call schedules, and a description of general responsibilities. The document is our first step in contracting; it is available to residents before they arrive.

During the first day, we find time (usually about 2 hours) to welcome residents; go on a short tour of the community, the hospital, the clinic, and the extended care unit; and discuss expectations, educational objectives, and practice-specific issues. Call schedule and time away from practice are usually very important to residents. Some residents have specific learning objectives; we try to identify these and work out a plan if indeed they are attainable in our context. We talk about cultural issues, because many of our patients are First Nations people.

It is essential that agendas are on the table at this time, because this is where misunderstandings begin. Nothing is more disheartening than hearing at the end of a rotation that a resident did not know what was expected of him or her. As preceptors, we have a very clear idea of what we expect from residents, and it is our responsibility to communicate that clearly at the beginning of the rotation. This discussion is identified as a contracting session; the verbal exchange supplements our introductory document. Our program is developing a learning plan form in which the contents of such discussion can be recorded.

A successful and close working relationship between preceptor and resident is important for learning.[7] It will depend, to some extent, on sharing and understanding common goals and procedures. As preceptors, we could make our first mistake here. Reasonable middle ground must be found: the service component of a residency position and program objectives must be addressed throughout discussions.

Contracting is probably the one component of the program[8] most foreign to us and requiring the most effort on our part. We still struggle to clarify learning objectives with core family medicine residents; we rarely had to do this with the elective residents we had previously taught.

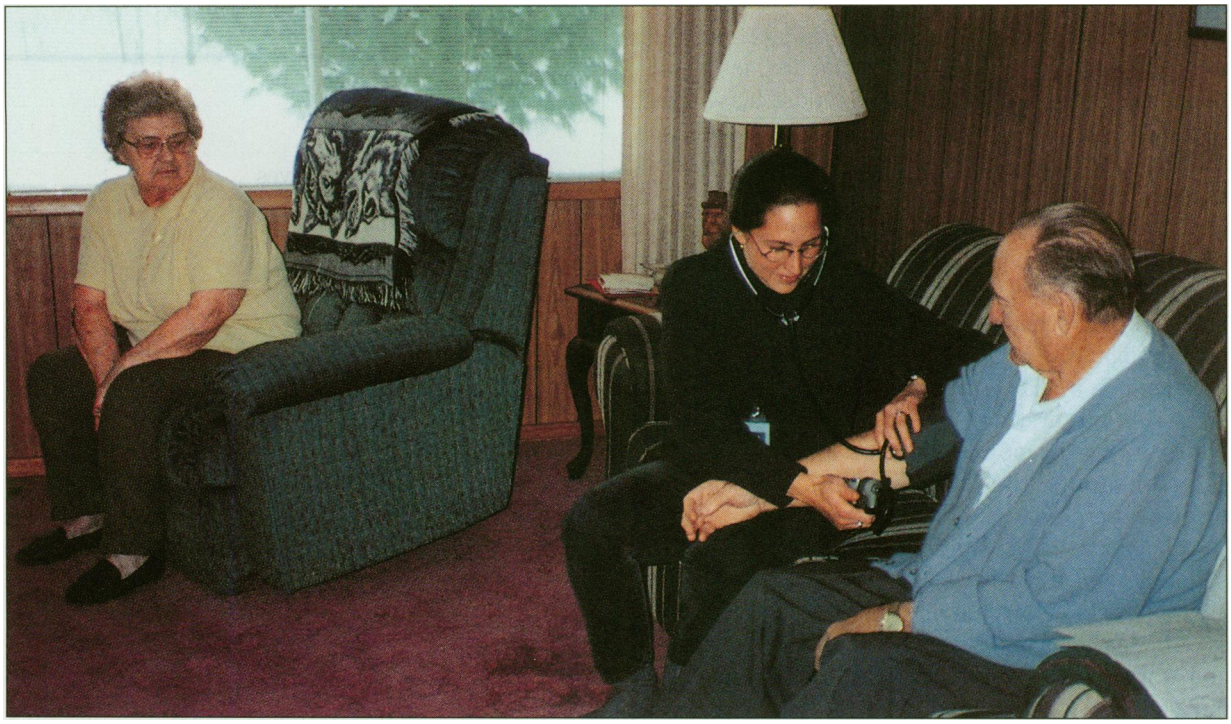
One of the main topics of our initial contracting session is patient safety. We have two golden rules.

Table 1. Preceptorship plan

CONTRACTING
• Allow 2 hours
• Discuss learning objectives
• Patient care comes first
• Patient safety is paramount
• Outline practical issues
TEACHING
• Role modeling
• Daily chart review
• Easy resident access to preceptor
• Monthly rounds
• Regular good case – bad case discussions
MONITORING
• Weekly 1- to 2-hour sessions
FEEDBACK
• Resident goes first
• Comments should be timely and behaviour-specific
• Find some positives
• Weekly, with monitoring sessions
EVALUATION
• A partnership
• Midterm, end of rotation

- Always ask for help if you need it.
- Don't do anything with which you are uncomfortable.

Most family physicians have close relationships with their patients, and rural physicians often have more responsibility for patient care because of geographic isolation and lack of specialist backup. Most community preceptors have an overriding concern that new learners practise safely and stay within reasonable bounds for someone at their level.[9] Nothing is more comforting than having residents come to you with worries about getting out of their depth, even with simple things. We tell residents that our first responsibility is to patients; preceptors and residents come second and third. We tell learners they will get into serious trouble with preceptors if they go



Second-year resident, Dr Alex Farrugia, makes a home visit to Mr and Mrs Kressal in Sioux Lookout, Ont.

beyond their limits and do not ask for assistance (perhaps counseling someone when it is inappropriate or performing procedures with which they are not completely comfortable).

We describe our functional order of priorities as patient care first, preceptor anxiety level second, and residents' learning experience third. Residents look after our patients for a short period; residents are encouraged to build up their own "mini-practices" and will be given responsibility commensurate with their level of function. Both first- and second-year family medicine residents are expected to function as if they were solely responsible for their patients and to provide a timely and appropriate standard of care. Ultimately, preceptors are responsible for patients' care. We point out to residents that they might well know more than we do on many topics, but that we are more experienced and more in tune with local standards of practice and patient expectations.

Teaching

Role models. How do residents learn from preceptors?[10] How do we learn from our colleagues?[5] We all have different learning styles and habits. Generally, learning by example is a powerful medium and is one of the basic tenets upon which the preceptor model is based.

One of the first parameters to consider is physical set-up. While residents need to develop their own practice during the time they spend with us, we must not isolate them from frequent contact with us. In our clinic we have made room for residents in a corner of a clinician's office. We see patients in adjoining examining rooms. Each of us uses two examining rooms, and residents are booked about every 20 to 30 minutes.

While space is confined, close contact is established. If residents are isolated, say, by having their own offices, preceptors lose the opportunity to see how well they are coping with patient flow, telephone calls, and all other aspects of a busy practice.

Preceptors are models for residents.[11] A lot of what we do in practice is not direct patient contact. Residents can hear how we interact with other health care providers and how we arrange the flow of paper and information that is a part of a normal day. Residents learn by example and by osmosis how family doctors behave and interact with colleagues and ancillary services. Recently, a resident told us he was learning about family medicine and its skills, but also learning how to handle the job emotionally. Role modeling might be our most powerful teaching tool.

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Other teaching tools. These include classic teaching methods[12,13]: patient consultation, corridor consultation, bedside teaching, chart review, didactic sessions, formal rounds. In our group, each resident has an identified preceptor, who is on site and available for corridor consultations. At the end of the day we do a traditional chart review on each patient a resident has seen that day. This usually takes less than 1 hour and stimulates topics for additional reading for both residents and preceptors. Occasionally, discussion identifies a suboptimal treatment, allowing residents to recall patients for changes in therapy.

Chart reviews allow us to discuss laboratory and x-ray results, explore alternate management options, and find topics for the rounds that residents are regularly asked to give. We have a weekly 2-hour continuing medical education session during which residents and medical students often do 1-hour case presentations and participate in such educational activities as telemedicine or practice-based small group learning.[14]

In clinic and hospital, our group members usually alert residents if a patient has interesting findings, and we pool our bedside teaching in this way. Residents are also called to emergencies and given the option to help out, as such experiences are not regularly available in small communities.

We ask residents what role they would like us to play in any given situation. When they ask us to look at a patient with them, we do so; they have not asked us to take over the whole case, so we try not to. Then we ask them what they want from us. Several possibilities exist: they might have already formulated a differential diagnosis and a treatment plan and are uncertain about it or they might be completely lost and need direction. Asking what role we are to play helps clarify residents' needs.

Another aspect of corridor consultation that we find important is that we do not subvert residents' roles, even inadvertently. When we assess a patient with residents, we step outside to discuss diagnosis and treatment options. Residents then return to the patient by themselves to wrap up the therapeutic relationship. If we take over explaining diagnosis and therapy to patients, they then identify us as the caregiver, rather than the resident.

Good case–bad case scenario. To understand a resident's particular learning style, we regularly (eg, weekly) ask what have been good and "less than useful" learning experiences for that period. This simple exercise allows preceptors insight into residents' learning styles and into the experiences that have proven particularly stressful. In psychology literature, this is referred to as the critical-incident technique.[15]

Poor learning experiences often result from situations where learners play no role or feel useless. Once we have discussed a poor learning experience, we ask what would have turned it into a good learning experience. Often, this restores some learning potential to a difficult situation.

Sometimes it is useful to alert residents the day before discussion so they can think about identifying some cases. This can be a benign way of dealing with conflicts or understanding different learning styles. Like effective feedback, it is behaviour- or situation-specific and points toward behaviour changes rather than subjective generalizations.

Monitoring

Much literature demonstrates the benefits of watching oneself on videotape.[16-18] Our experience is that video monitoring often is not used to best advantage; resources are dedicated to purchase and set-up of video facilities, but monitoring is minimal.

Direct observation is our monitoring method. We sit in the room with residents and patients and observe the interactions weekly. Many of our patients are First Nations Canadians and, for cultural reasons, it is inappropriate to use one-way mirrors or videotaping. Many patients prefer having their family physicians present, rather than having information passed on second-hand. Building trust with our patients naturally supersedes monitoring requirements. We think the technique used is less important than the consistency of the monitoring session and the attentiveness and skill of the preceptor. When we sit in the room, residents get our complete attention and the focus is clearly on teaching.

Our weekly direct monitoring satisfies College of Family Physicians of Canada standards.[19] These standards did not prompt us to adopt this practice; we had other reasons. Few papers in the medical literature describe how much monitoring is optimal, but some indicate how little monitoring average medical professionals undergo. On average, physicians are observed doing a complete history and physical examination only once or twice during their complete training.[12] Relying on residents' descriptions of interactions between themselves and patients is inadequate; self-reporting has been shown to be unreliable.

Our approach to direct observation is simple. Residents ask patients for permission to have

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Table 2. Monitored components of a patient interaction

ACTIVITY	KNOWLEDGE	SKILL	ATTITUDE
History taking	What to ask	How to ask	Acceptance of patient
	What to leave out	Organized approach	Putting patient at ease
	Risk factors and symptoms	Voice, body language	Rapport with patient
	Background knowledge of patient and community	Time allotment	
Physical examination	Correct procedure	Well performed	Gentleness
	Scope of problem	Organized approach	Attention to patient comfort and inhibitions
Differential diagnosis	Scope, completeness	Explanation to patient	Attention to patient's level of understanding
	Appropriate	Addressing patient's fear or agenda	
	What is common or rare		
Management	Appropriate for patient	Realistic for this patient	Communication style
	Correct follow up	Use of terms patient can understand	Attitude toward patient
	Reasonable tests done		

preceptors present, explaining that this is part of the learning process. Patients sometimes decline, but our patients are used to being seen by learners and are usually cooperative. Two hours weekly might seem a large commitment, but to this point it is not onerous. Several physicians do similar monitoring sessions in the emergency department when they are on call with residents. In truth, no one looks forward to these sessions. Residents are usually nervous about being monitored, and preceptors have to put aside their patient schedules.

The next challenge is how to proceed following the observation. At faculty development gatherings, we often hear our discomfort with giving feedback echoed by others. An organized framework for assessing residents' knowledge, skills, and attitude during monitoring simplifies giving feedback.

Feedback

Most physicians have no training as educators and are often uncomfortable giving feedback.[20] We spend most of our time in patient care and keeping up with our own continuing medical education. We are used to doing things our own way. That has become the hallmark of our practice: consistency and reliability of care. Watching a resident go through a history and physical examination can be a trial in patience. Criticism comes easily.

There are at least four components[13,21,22] to giving effective feedback.

- Feedback should be immediate and behaviour-specific.[23] Bringing up something that occurred last week is not useful and can lead to misinterpretation of what actually occurred. Keeping to the facts will help you remain objective. Telling a resident he or she seemed uninterested in a patient is a subjective interpretation, but letting a resident know he or she spent most of the time looking in the chart or out the window is describing behaviour.
- Residents should go first. Most physicians are their own worst critics. Residents generally will be able to admit to an interview going poorly and will be able to point out their deficiencies. Preceptors then can agree with residents' interpretations, which allows them to play a positive role.
- Identify some positive aspects. Sometimes, "A for effort" is the best you can muster. Generally, many components are well done; we tend to focus on deficiencies, because we find them most irritating.
- Examine patient interviews in terms of knowledge, skills, and attitudes. Take an organized approach to discussing parameters that pervade each component of the interaction from history taking (knowledge: what questions to ask; interview skills: how to ask them; attitude: approach to patient, or way of interacting with patient or preceptor) to physical examination (knowledge: what maneuver is

required and how to do it; skills: how well it is performed; attitude: was the examination done in a polite, gentle manner) (**Table 2**).

This approach also leads naturally to remediation. Knowledge deficits require study; skills deficits often require instruction, more practice, and supervision; attitude problems sometimes require an outside arbiter (attitude is unlikely to improve with more practice).

We generally dictate a description of the patient encounter and the feedback, which then take the form of field notes. Both preceptor and resident sign them, and they become part of a resident's evaluation record.

Evaluation

The last component of the education process is evaluation. The program has baseline responsibility for defining the objectives for the rotation on which the evaluation is based. If monitoring has occurred, and organized, behaviour-specific feedback has been received and documented, evaluation becomes a simple task.

Most programs require midterm and end-term evaluation. Evaluation should be an ongoing partnership with residents throughout their time with a preceptor. To take on the role of evaluator, we require the implicit or explicit permission of the learner to do so. We both know the program requires that evaluation take place, but verbalizing that part of the contract seems to legitimize it.

Evaluation of residents is a group process. At the beginning of the rotation, we let residents know that we will discuss their progress as a group, and at our biweekly clinic meeting, we update one another as to residents' performance. By discussing our various experiences, we can often highlight subtleties that might not be apparent from the experience of a single preceptor.

We think evaluation is a partnership; our own patient management is up for evaluation by residents just as their performance is open to our comments. We often see residents handle situations better than we do or demonstrate more up-to-date knowledge on a particular topic. Often, we are reminded of our own limitations as we identify someone else's. We are continually challenged by residents' questions and suggestions.

Conclusion

Our group in Sioux Lookout has gone through a transition as we moved from teaching elective students and residents to teaching core family medicine residents. Teaching sites are often chosen based on teaching experience with elective learners. Precepting core family medicine rotations brings added responsibility and teaching opportunities.

Section of Teachers meetings and other preceptor gatherings often have informal discussions on the nuts and bolts of integrating residents into practice. Everyone seems to do things in his or her own way, yet very little has been written on the subject. Our group has gone through a process of trial and error, and has settled, for now, on the approach outlined above. In the past 15 years we have hosted more than 400 clinical clerks and residents and have consistently had positive feedback for our teaching approach. During the past 5 years, our experience with the FMN program has mirrored that sense and has been documented by the positive evaluations we have received from our residents.

We now have a system that works well for our community, preceptors, and residents. While we have had ups and downs in developing some aspects of our framework, we now have a relatively low-maintenance approach to integrating residents into our practice. Family medicine in a small rural setting is always full of surprises and requires some flexibility. Now that many of these organizational issues have been ironed out, we can get on to the fun and work of teaching.

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