

# Rural medicine and rural training: addressing high-technology care


*Aaron Orkin, BASci, MD*

*Resident, Family Medicine, Northern Ontario School of Medicine, Thunder Bay, Ont.*

*Ryan Hoskins, MPA, MD, BA*

*Resident, Family Medicine, University of British Columbia, Chilliwack, BC*

*Correspondence to: Dr. Aaron Orkin; aaron.orkin@normed.ca*


The dichotomy was palpable from the moment we first set foot into the medical recruitment fairs. With booths covered in pictures of happy families, loons, lakes and snow-capped mountains, the rural programs seemed to be selling rural medical lifestyles. The message was that rural medicine would be challenging and rugged, but rural programs did not seem to be focused on selling the medicine itself. On the other extreme, with booths decorated with pictures of shiny space-age hospital facilities, serious white-coated doctors and electrocardiograms, the urban programs emphasized cutting-edge medicine and training. Learning in an environment with rapid access to modern technology and information was the core of the urban sales pitch.

Is expensive high-tech medicine really better health care? Is rural medicine and training selling itself short?

Quick to abandon faith in basic care and latch onto the most modern of everything, it seems as though an obsession with medical technology is increasingly evident in health care management systems, the public and medical media, and the most popular and lucrative medical research. There's a lot of hype about a new MRI, but we don't seem to pay much attention to a new hearing loss program, smoking cessation initiative or public transit system. We watch as local services are restricted in rural settings, with lukewarm reassurances that centralized care, telemedicine, and transport systems will provide for all. Medical research continues to develop management plans for common health problems that require highly specialized and expensive centralized care. Perhaps we sell our rural training programs on the rural lifestyle, not the rural medicine, because the message that urban is better is implicit in every diagnostic algorithm necessitating a CT or angiogram. The evidence just seems to be piling up in favour of closing any hospital without an interventional radiologist on staff.

Or is it? A 2006 study published in *JAMA* looked at data from over 4.7 million US Medicare enrollees between 2000 and 2003, and found that days spent in hospital and use of intensive care facilities were reduced while continuity of care was increased in settings where care was directed by family physicians.[1] A second study challenged whether improved outcomes offered by new technologies and pharmaceuticals justified their burgeoning cost. Studies run from 1986 to 1996 had previously shown that developments in post–myocardial infarction (MI) management had more than justified the associated costs. The findings were sound, but when a new research team extended the study through to 2002, it made some divergent conclusions. From 1996 to 2002, the benefits from new technologies had reached a plateau and no longer justified growing costs. Furthermore, those regions where the greatest financial investments were made in technology and new drugs had not been the same communities as those that had realized the greatest improvements in survival. "Factors yielding the greatest benefits to health were not the factors that drove up costs, and vice versa."[2]

Rural physicians, of course, already

knew this intuitively. Generalists, and especially primary care generalists, have always played an important role as an "appropriate filter for high-technology care, [to] ensure that it is appropriately applied."[3] This is true in both urban and rural settings. According to Eric Cassell, an internist and medical philosopher, "the mandate for the existence of a profession of medicine in society is its obligation to relieve the suffering caused by human sickness."[4] Health care planning and individual clinical decisions need to be understood and justified through this mandate. Many patients readily identify the relief of suffering among their own health care priorities, even when their physicians or the medical system attempting to treat them is failing to do so. Many patients also have a developed capacity to make decisions about their care without deviating from their focus on relieving suffering. Good doctors, it would follow, are those who give patients the ability to make decisions that are well aligned with their own values, or who can be trusted to make decisions in a way that is consistent with patient values and context.

New medical technologies must be able to answer to the priority of relieving suffering as well. Accessing high-technology medical tests and interventions is extremely challenging for many Canadians in rural communities. As a result, the suffering associated with accessing a test is often magnified for rural Canadians. Rural physicians have to engage in a careful analysis of the potential risks and benefits of travelling for a test and understand that assessment in the context of an entire family or community. What if physicians everywhere stopped to ask a simple question before ordering new tests or drugs: Would I still order this test if my patient had to buy an airplane ticket to get it?

What rural medicine adds to the clinical picture is a community-specific, generalist perspective on caring for any given patient. Rural medicine is, by definition, *local*. Physicians and policy-makers must all learn to balance alluring and expensive new technologies with emerging evidence that these technologies do not always improve clinical outcomes and may intensify suffering. Perhaps the best way to achieve balance is to frame our clinical decision-making through local, neighbourly criteria that can be shared more intimately with our patients and communities. The general public seems to know and want this already, while health care managers and practitioners are still trying to understand and appreciate it. As medical systems across Canada question how to address the burgeoning costs and diminishing clinical returns of high-technology medicine, perhaps many of the answers are inherent in the mentality of rural medical practice. Are Canadians, be they city slickers or country folk, ultimately looking for a rural doc?

All this makes learning in a rural environment rather cutting edge. The opportunity to enjoy the great outdoors and enjoy rural life is one of the great rewards of rural practice. But rural health care, be it specialized or in family practice, is also a unique opportunity to learn effective, compassionate health care with outcomes second to none. Rural medicine is not second-rate medicine, and ruralists are not defending a romantic outdated vision of the fearless frontier doc. Practice in rural settings is not about begrudgingly adapting to less-than-ideal clinical settings. It is about offering Canadian communities what they really want: local care that respects local needs and priorities. In the continued battle to entice students into rural medicine, recruiters should be unabashed in letting students know the privileged education they will be receiving. Recruiters and educators must let them know that they will learn to provide a form of health care that respects the needs and wishes of their communities — a form of health care supported by emerging evidence that newer and more expensive technology does not necessarily mean better medicine. Rural medicine isn't just about the lifestyle. It is about good medicine.

## References


1. Mitka M. Less may be more when managing patients with severe chronic illness. *JAMA* 2006;296:159-60.
2. Skinner JS, Staiger DO, Fisher ES. Is technological change in medicine always worth it? The case of acute myocardial infarction. *Health Aff (Millwood)* 2006;25:34-47.
3. Ferre RL, Hambridge SJ, Maly RC. The essential role of generalists in health care systems. *Ann Intern Med* 2005;142:691-9.
4. Cassell EJ. *The nature of suffering and the goals of medicine*. 2nd edition. Oxford (UK): Oxford University Press; 2004. p. 61.