

# Surgical outreach clinics in Canada: one neurosurgeon's experience

Mark Bernstein, BSc, MD, MHSc

In this short paper, I present my 3-year experience, from January 2000 to September 2002, with a neurosurgery consultation outreach clinic in Huntsville, Ont. I describe the logistics, advantages, disadvantages and implications for surgeons of outreach clinics and their patients. The clinic was highly successful for the area physicians and the patients, but was discontinued in September 2002 owing to restrictions on my time available for the clinic. New surgical outreach clinics should be carefully planned. The specialist surgeon must have adequate flexibility and time for this activity and the success of the clinic must be assessed regularly.

Dans cette brève communication, je résume mon expérience de trois ans, soit de janvier 2000 à septembre 2002, dans une clinique de consultation en neurochirurgie à Huntsville (Ont.). Je décris la logistique, les avantages, les inconvénients et les répercussions des cliniques de sensibilisation pour les chirurgiens et leurs patients. La clinique a été un franc succès pour les médecins et les patients de la région, mais elle a fermé ses portes en septembre 2002 à cause du peu de temps dont je disposais. Il faudrait planifier avec soin de nouvelles cliniques de sensibilisation en chirurgie. Le chirurgien spécialiste doit avoir suffisamment de flexibilité et de temps pour participer à cette activité et il faut évaluer régulièrement la réussite de la clinique.

Referral of patients for consultation with surgical specialists is difficult for family physicians working in many urban centres. There are not enough specialists in certain fields to provide prompt service to everyone who needs it. This particularly pertains, for example, to patients with pain of benign spinal origin (i.e., lumbar disc herniation or stenosis and cervical radiculopathy or myelopathy). For physicians working in rural areas several hours from the nearest specialist, the challenge of timely referral and treatment for their patients is even greater, especially in a vast country like Canada, where there are gaps of over 1000 km between some communities and surgical specialists. One solution may be

“outreach” clinics in which surgical specialists travel to rural areas regularly to see referred patients.

There is a modest international literature, largely from the United Kingdom, describing the advantages and disadvantages of outreach clinics for patients, family physicians and specialists.<sup>1-18</sup> Many of the advantages appear obvious, but the solution is not as simple as it appears on the surface. Black and associates<sup>4</sup> have warned that “the benefits of outreach clinics to patients, GPs, and consultants may be modest...” O'Brien and colleagues<sup>13</sup> conducted a randomized study that concluded, “There do not appear to be marked advantages or disadvantages in...outreach clinics.”

The Canadian literature has ad-

ressed outreach clinics for oncology, psychiatry, dentistry, diagnostic screening and allied health, as well as outreach education of underserved populations.<sup>19-29</sup> There is sporadic Canadian experience with surgical outreach clinics but no descriptions of the advantages and disadvantages of this experience for both patients and doctors. There is a substantial amount of information on surgical outreach clinics on the Internet: using Google as a search engine, over 25 000 sites were found when “surgery outreach clinics” was used as a search phrase. Most of these sites contain pure advertising but little critical analysis.<sup>30</sup>

This report describes a neurosurgery outreach clinic in Huntsville,

---

*From the Division of Neurosurgery, Toronto Western Hospital, University of Toronto, Toronto, Ont.*

*Accepted for publication Aug. 2, 2003.*

**Correspondence to:** Dr. Mark Bernstein, Division of Neurosurgery, T4W45, Toronto Western Hospital, 399 Bathurst St., Toronto ON M5T 2S8; fax 416 603-5298; mark.bernstein@uhn.on.ca

Ont., and qualitatively describes the logistics, advantages and disadvantages of outreach clinics for surgeons.

### Logistics

The town of Huntsville (population 10 000) is located 230 km north of Toronto in the heart of "cottage country." In 1999, I presented the concept of a neurosurgery outreach clinic to the chief of staff at Huntsville District Memorial Hospital (HDMH). He canvassed his constituents, who were overwhelmingly in favour. Appropriate credentialing and due diligence was achieved, and the first clinic was scheduled in January 2000. Clinics were held approximately every fifth week in shared clinic space at HDMH. Referrals were faxed to my office at the Toronto Western Hospital (TWH), from which the clinics were booked, the patients informed and the charts assembled. I took the patient charts and a tape recorder with me to the clinic.

Since there was no receptionist, instructions were given to patients on a sign placed on the clinic door. Patients picked up their x-ray films at the HDMH radiology department and obtained a registration form. The latter was filled out after each visit; I kept a copy for contact and billing information on the patient. Taped letters were transcribed on the Sunday after each Friday clinic, so they could be sent out promptly at the beginning of the week.

If a patient required further investigation such as magnetic resonance imaging (MRI), it was booked either at TWH or in other locations such as Barrie, Peterborough, Sudbury, or elsewhere in Ontario. Any patient requiring surgery was instructed to call the TWH office the week after the clinic, by which time I would have booked a date for surgery. Patients were then instructed to come to the TWH office the day before surgery for the preadmission process; most patients remained overnight with family or friends before being admit-

ted for surgery the next morning. Most lumbar discectomies (the single commonest surgical procedure) were performed on an outpatient basis.<sup>31</sup>

### Patient information

Between Jan. 28, 2000 (the first clinic), and Sept. 20, 2002 (the last clinic), 285 new patients were seen in consultation. There was a comparable number of follow-up visits. Most patients were referred by physicians working in Huntsville or within 50 km of Huntsville; however, a substantial number were referred from towns over an hour away, such as Haliburton, Ont. Of the 285 patients, surgery was recommended for 67 (23.5%). I performed the procedures in 47 cases; the other 20 were triaged to my partners. This was done primarily to facilitate prompt service or if the patient required the services of a surgeon who was better equipped to perform the surgery (e.g., instrumented lumbar fusion, which I do not perform).

Most patients were seen for pain of benign spinal origin. Almost all patients arrived punctually for their appointment, and many openly expressed appreciation at not having to travel to Toronto for the consultation. On the other hand, they were willing to travel to Toronto for an MRI or surgery if required.

### Advantages for the surgeon

The main advantages I perceived *ab initio* were as follows:

- an opportunity to provide a valuable service for patients and physicians in an area underserved in neurosurgery
- a different venue and setting to break the routine of seeing patients at a teaching hospital
- an opportunity to meet physicians in a rural town and learn more about medical practice in a rural setting
- an opportunity to capture an increased market share of patients

for the neurosurgical division at TWH.

Another advantage that became evident early on was the high quality of referrals and the work-up and documentation by the referring physicians.

### Advantages for the patients

Advantages to the patients included shorter waiting times for neurosurgical consultation, and the avoidance of at least 1 trip to Toronto. Besides the saved time, the approximate total cost savings to patients can be computed as Can\$28 500 over the period of the study (for 285 patients seen in consultation plus 285 patients seen in follow-up, at an approximate saving in gas and parking for a round trip of \$50).

### Advantages for the local physicians

The main advantage to the local physicians was the opportunity to provide their patients with more timely elective neurosurgical consultation and have a window for access to urgent neurosurgical care quickly. On more than 1 occasion, I saw an urgent case in the clinic (e.g., cauda equina syndrome from central lumbar disc herniation), and referred the patient urgently to a partner at TWH. The Huntsville physicians also gained an opportunity to interact with a neurosurgeon at grand rounds and during their frequent visits to the clinic to discuss a case or to network. A detailed survey of the area physicians was not done, but discussions, particularly those who referred heavily, suggested that they perceived a real advantage to having the neurosurgery clinic at HDMH.

### Disadvantages for the surgeon

The main disadvantage as I perceived it was the extra time added on to an extremely full work schedule comprising clinical, research, educational and administrative activities, as

well as travel. Extra work fell to my secretary as well. I attempted to recruit other members of the division of neurosurgery at TWH to share the clinic, but all were legitimately too busy to commit. There were also additional financial costs driving to Huntsville, paying for the Sunday typing of the taped letters, and additional long-distance phone calls and faxes. Another disadvantage was the "fatigue factor" carrying out up to 25 new consultations of similar type in 1 day, compared with my TWH clinic, which typically includes a variety of patients, including a high proportion of patients with brain tumours. Of my surgical practice 80% relates to brain tumours and 20% to spine, but spine constituted close to 100% of consultations in the Huntsville clinic. This is simply an indication of how common spine problems are, a fact that I did foresee initially. Other bothersome problems included the fairly regular appearance of patients without their imaging results, a finding not unique to outreach clinics.

### Disadvantages for the patients and local physicians

There were no obvious disadvantages to the physicians or patients, although there may be some hypothetical disadvantages. Both physicians and patients may have been influenced to see a particular neurosurgeon because of convenience or peer pressure, whereas many physicians or patients may have preferred interacting with another neurosurgeon. The latter is a hypothetical concern and was only discernible through in-depth interviews with the physicians and patients in Huntsville.

A real disadvantage to some patients and their referring physicians was a possible increase instead of decrease in waiting time for consultation because as the upcoming clinic filled up, patients were booked into the next available clinic, whereas if no clinic had existed in Huntsville, such patients would have been seen

more promptly in my TWH clinic, which is held every week. This is my current practice with new patients from a distance.

### Comment and conclusions

Specialist outreach clinics should be a win-win-win situation for the surgeon, the area physicians and the patients. Perhaps it is inappropriate for extremely busy academic surgeons to add this responsibility to their roster of activities. I found the experience enjoyable and educational; its ultimate "failure" was primarily the result of inadequate time. As far as Huntsville area patients and physicians are concerned, all indications suggest it was a positive experience. In the future, I hope the wait for consultation and surgery will still be significantly shorter than it was before the clinic's inception, perhaps even shorter than when the clinic was operational.

The main advice to a surgical specialist embarking on such a venture is first a warning that a successful clinic becomes very busy, and the surgeon must have adequate flexibility and time to accommodate this activity or should be able to share the responsibility with colleagues. Goodwill and altruistic intentions are not enough to sustain a work-intensive service that in the final analysis can be done in a more time- and resource-friendly way for the surgeon at the consultant's base hospital. Patients may also be disadvantaged by outreach clinics due to the potential for longer wait times.

Nevertheless, there are likely many very successful surgical specialty outreach clinics throughout Canada which, if discontinued, would be a huge loss to the local community and to the surgeon. Each outreach clinic must be planned as well as possible and must be assessed on its own merits both at inception and as time passes.

**Competing interests:** None declared.

### References

1. Armstrong D, Nicoll M. Consultants' workload in outpatient clinics. *BMJ* 1995; 310:581-2.
2. Ayshford CA, Johnson AP, Chitnis JG. What is the value of ENT specialist outreach clinics? *J Laryngol Otol* 2001;67:334-40.
3. Bailey JJ, Black ME, Wilkin D. Specialist outreach clinics in general practice. *BMJ* 1994;308:1083-6.
4. Black M, Leese B, Gosden T, Mead N. Specialists outreach clinics in general practice: What do they offer? *Br J Gen Pract* 1997;47:558-61.
5. Bond M, Bowling A, Aberly A, McClay M, Dickinson E. Evaluation of outreach clinics held by specialists in general practice in England. *J Epidemiol Community Health* 2000;54:149-56.
6. Bowling A, Stramer K, Dickinson E, Windsor J, Bond M. Evaluation of specialists' outreach clinics in general practice in England: process and acceptability to patients, specialists, and general practitioners. *J Epidemiol Community Health* 1997; 51:52-61.
7. Field CR, Dungan WT, Marsh C, Patterson P, Fiser RH. Pediatric outreach clinics in Arkansas. *J Ark Med Soc* 1989;86:270-1.
8. Gillam SJ, Ball M, Prasad M, Dunne H, Cohen S, Vafidis G. Investigation of benefits and costs of an ophthalmic outreach clinic in general practice. *Br J Gen Pract* 1995;45:649-52.
9. Haynes R, Gale S, Mugford M, Davies P. Cataract surgery in a community hospital outreach clinic: patients' costs and satisfaction. *Soc Sci Med* 2001;53:1631-40.
10. Hopkins LC, Sladky JT. Teaching in the field: the model of a one-day trip to an outreach clinic. *Semin Neurol* 2001;21:359-69.
11. Lantagne R. Networking services to reach rural outpatients. *J Health Resour Manag* 1995;13:16-9.
12. Nakar S, Vinker S, Lustman A, Hyam E. Outreach clinics in Israel: a common but unregulated phenomenon. *Fam Pract* 1999;16:149-51.
13. O'Brien K, Mattick R, Mandall N, Wright J, Conboy F, Gosden T. Are specialist outreach clinics for orthodontic consultation effective? A randomised controlled trial. *Br Dent J* 2001;191:203-7.
14. Perrett K. Specialists outreach clinics in Sheffield: a faster tier of out-patient provision for the patients of fundholding GPs? *J Public Health Med* 1997;19:347-53.
15. Powell J. Systematic review of outreach clinics in primary care in the UK. *J Health Serv Res Policy* 2002;7:177-83.
16. Spencer NJ. Consultant paediatric outreach clinics — a practical step in integration. *Arch Dis Child* 1993;68:496-500.
17. van der Pol MM, Cairns JA, Gilbert FJ, Hendry PJ. Economic analysis of outreach

assessment clinics in breast screening programmes. *Int J Health Plann Manage* 1999;14:57-67.

18. Wagstaff MH, Rigby ML, Redington AN. Increasing workload and changing referral patterns in paediatric cardiology outreach clinics: implications for consultant staffing. *Heart* 1998;79:223-4.
19. Beggs C. The Ontario Northern Outreach Program in physical therapy. *Physiother Can* 1988;40:80-5.
20. Calam B, Norgrove L, Brown D, Wilson MA. Pap screening clinics with native women in Skidegate, Haida Gwaii. Need for innovation. *Can Fam Physician* 1999; 45:355-60.
21. Hesson CM. Niagara Geriatric Mental Health Outreach Team: private partnerships in care. *Perspectives* 1998;22:14-7.
22. Houston F. Two year follow-up study of an outreach program in geriatric psychiatry. *Can J Psychiatry* 1983;28:367-70.
23. Levine N, Sigal MJ, Munroe CO. Outreach dental programs. A viable adjunct to dental faculty education. *J Can Dent Assoc* 1986;52:709-13.
24. Minore B, Hill ME, Kurn MJ, Vergidis D. Knowledgeable, consistent, competent care: meeting the challenges of delivering quality care in remote northern communities. *Int J Circumpolar Health* 2001;60:196-204.
25. Murty M. Healthy living for immigrant women: a health education community outreach program. *CMAJ* 1998;159:385-7.
26. Nemecek A, Schipper H. Chemotherapy outreach: a team approach. *Dimens Health Serv* 1990;67:29-31.
27. Rusthoven JJ, Wodinsky H, Osoba D. Canadian cancer care: organizational models. *Ann Intern Med* 1986;105:932-6.
28. Sumison TH, Beggs CE. Distance consultation: concepts, components, and collaboration. *J Allied Health* 1994;23:341-8.
29. Thomas M. Delivery of physiotherapy services to some First Nations communities in Manitoba. *Int J Circumpolar Health* 1998;57(Suppl 1):697-701.
30. Marquette General Health System [press release]. Available: [www.mgh.org/press/clinics.htm](http://www.mgh.org/press/clinics.htm) (accessed 2003 Jan 20).
31. Singhal A, Bernstein M. Outpatient lumbar microdiscectomy: a prospective study in 122 patients. *Can J Neurol Sci* 2002; 29:249-52.

## Essential reading in Canadian medicine

The CMA's expanding family of medical journals offers new sources of reliable information to Canada's doctors. The coverage is current, the debate lively and the issues fascinating.

**Call us today to start your subscription!**



Canadian Journal  
of Surgery

Clinical and  
Investigative Medicine

Journal of  
Psychiatry & Neuroscience

Canadian Association  
of Radiologists Journal

Canadian Journal  
of Emergency Medicine

Canadian Journal  
of Rural Medicine

Canadian Medical  
Association Journal

For information on a subscription package,  
call the Member Service Centre

(outside Ottawa) 888 855-2555  
(Ottawa and area) 613 731-8610 x2307

[cmamsc@cma.ca](mailto:cmamsc@cma.ca)

◀ cma.ca ▶

ASSOCIATION  
MÉDICALE  
CANADIENNE



CANADIAN  
MEDICAL  
ASSOCIATION