Bus rounds for palliative care education in the community

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Abstract

INCREASINGLY, PATIENTS WITH CANCER are dying at home and in continuing care facilities. The purpose of bus rounds is to provide continuing education to physicians and nurse palliative care consultants, to familiarize family physicians with the delivery of care in these settings and to educate family medicine and specialty residents as well as medical students. A total of 18 4-hour bus rounds took place during 1996. A mean of 13 (range 9 to 17) participants attended, to discuss a mean of 3.5 (range 2 to 4) patients and 4.5 (range 3 to 8) journal articles. A questionnaire was filled out anonymously by 18 first-time medical and 24 first-time nursing participants. On a scale from 1 (worst) to 5 (best), they gave the rounds an overall rating of 5 (range 4 to 5). The mean cost per round was \$245.40. The authors conclude that bus rounds provide an opportunity for intensive exposure to community-based learning for physicians, nurses and students and are highly satisfactory from the participants' perspective.

Résumé

DE PLUS EN PLUS DE PATIENTS ATTEINTS DU CANCER meurent chez eux et dans des établissements de soins continus. Les visites cliniques par autobus visent à donner de l'éducation continue aux médecins et aux conseillers en soins infirmiers palliatifs, à initier les médecins de famille à la prestation de soins dans de tels contextes et à former des résidents en médecine familiale et dans des spécialités, ainsi que des étudiants en médecine. Il y a eu au total 18 visites cliniques par autobus d'une durée de 4 heures en 1996. Ces visites ont regroupé en moyenne 13 (de 9 à 17) participants qui ont discuté en moyenne du cas de 3,5 (de 2 à 4) patients et de 4,5 (de 3 à 8) articles de journaux. Dix-huit étudiants en médecine et 24 étudiants en soins infirmiers qui y ont participé pour la première fois ont rempli un questionnaire anonyme. Sur une échelle de 1 (pire) à 5 (meilleur), ils ont accordé aux visites cliniques une cote globale de 5 (de 4 à 5). Chaque visite a coûté en moyenne 245,40 \$. Les auteurs concluent que les visites cliniques par autobus offrent aux médecins, aux infirmières et aux étudiants une occasion d'exposition intensive à une expérience d'apprentissage dans la communauté et sont très satisfaisantes pour les participants.

ancer will be diagnosed in approximately 1 in 3 Canadians during their lifetimes and, of those, half will die of progressive disease.¹ During the next decade, the number of deaths due to cancer in developed countries is expected to rise by 50%, with an even larger increase expected in developing countries.² Because ambulatory and home care are increasingly replacing hospital care, most of these patients will require medical care at home under the auspices of family physicians.³

Patients with cancer experience a number of devastating physical and psychosocial symptoms before death.⁴ There is evidence that physicians are poorly trained in the appropriate management of these symptoms.⁵⁻⁷ In addition, most family physicians and specialists complete their training without spending any time delivering care at continuing care facilities or in patients' homes. In 1995, the Division



Education

Éducation

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This article has been peer reviewed.

Can Med Assoc J 1997;157:729-32

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of Palliative Care Medicine of the Department of Oncology at the University of Alberta organized regular bus rounds. These rounds had 3 main objectives: (1) to provide continuing education for the recently established group of 4 full-time physicians and 4 nurse consultants, (2) to familiarize family physicians and nurses with the process of care at continuing care facilities and at home, and (3) to educate family medicine and specialty residents during their palliative care rotation. In this article, we report on the results of this program after approximately 1 year of operation.

Methods

The bus rounds begin at 8:30 am every other Tuesday at the front entrance of the Grey Nuns Hospital in Edmonton and end at the same location at 12:30 pm. All participants are required to be present at the time of departure.

One of the 8 full-time staff members of the Regional Palliative Care Program (RPCP) is in charge of identifying patients, arranging the bus route and assigning journal club or educational functions to the rest of the staff members. However, all RPCP physicians and nurses as well as visitors are encouraged to participate regularly.

Once on the bus, each participant receives an outline of the round's activities. The outline includes a summary of the cases to be presented as well as the title and tables from the journal articles to be discussed.

Patients

One of the staff members asks patients and their families for their consent to participate in the bus rounds. The same staff member also does a complete assessment of the physical and psychosocial status of the patient and family 1 to 3 days before the bus rounds. The patients are also asked if they would prefer a limited number of bus round visitors, who can number as many as 17. The staff member then presents the patient's history in the bus on the way to the patient's home or the continuing care facility. On arrival, the RPCP team physician or nurse who is most familiar with the patient and the family introduces the group and leads the initial assessment. Once that is complete, the discussion takes place, either on the bus (for patients seen at home) or in a conference room (for patients seen in a continuing care facility, to allow the facility staff to participate).

After the round, the RPCP staff member discusses the recommendations that emerge from the case presentations with the patient and family, the home care nurse and the family physician. Occasionally, the home care nurse and family physician can be present during the rounds.

Journal club

During the travel time between case discussions, the members of the team present and discuss 3 to 8 journal articles. Those attending are encouraged to participate actively and to critically appraise the methods used in the studies. All potential presenters receive written guidelines for the presentation of journal club articles, including suggested journals, type of articles (original articles are preferred over reviews) and length of presentation.

All family physicians who attend the rounds receive 4 hours of MAINPRO educational credits from the College of Family Physicians of Canada. Visitors receive an educational package containing selected articles on pain and symptom control and a description of RPCP structure and functions.

Evaluation

All first-time participants were asked to rate the quality of the bus rounds by filling out a short questionnaire. The 6 questions allowed a range of responses from 1 (strongly disagree) to 5 (strongly agree) on the overall educational value of the bus rounds, whether they were time well spent, their usefulness for the care of other patients, the quality of the journal articles presented and the overall format of the rounds (Table 1).

Cost

The cost included the rental of a bus with a microphone and refreshments for the participants. The RPCP administrative staff prepared the case outlines. The Edmonton RPCP provided the operational budget for the bus rounds program.

Table 1: Responses to anonymous assessment form completed by physicians and nurses attending their first bus rounds (score on a scale of 1 [strongly disagree] to 5 [strongly agree])

Question Was this a valuable educational session?	Participant group; median score (and range)		
	Physicians n = 18		Nurses $n = 24$
	5	(4–5)	5 (4-5)
Was your time well spent?	5	(4–5)	5 (4-5)
Do you find this round will help you better manage your patients?	4.5	(4–5)	5 (3–5)
Were the journal articles current and credible?	4	(3–5)	4 (4–5)
Were the journal articles applicable to your practice?	4	(4–5)	4 (3–5)
Did you enjoy the bus round format?	5	(3–5)	5 (4–5)



Results

A total of 18 rounds took place between February 1996 and January 1997. Rounds were cancelled during July and August, over Christmas and during the Palliative Care Program's Annual Educational and Research Days Conference. Complete information was available for 16 (89%) of the 18 rounds.

A total of 52 patients were seen: 15 in their homes and 37 at the 3 city hospices located in continuing care hospitals. A mean of 3.5 (range of 2 to 4) cases were presented during each round. A total of 73 journal club articles were presented and a mean of 4.5 (range 3 to 8) journal articles discussed during each session. The bus rounds were attended by a mean of 13 (range 9 to 17) participants.

Eighteen physicians and 24 nurses participating for the first time filled out the assessment questionnaire (Table 1). The cost to operate each round was a mean of \$245.40, consisting of \$220.40 for bus rental and \$25.00 for refreshments.

Discussion

During recent years, there has been a major shift in the treatment of patients with advanced cancer and other chronic conditions in the Edmonton region from acute care to community care. According to data from the RPCP, between April 1992 and March 1993, 1084 (85%) of the 1275 deaths from cancer in the Edmonton region took place in acute care facilities after a median length of stay of 25 days. During 1996, after the development of the RPCP, 939 (70%) of the 1341 deaths caused by cancer took place either at the 1 of the 3 continuing care facilities or at home, mainly under the care of family physicians.

Undergraduate and postgraduate medical education in Alberta has not kept pace with these rapid changes in services and overwhelmingly takes place in traditional settings such as acute care facilities and outpatient clinics. Neither family physicians nor specialists are well trained to manage patients with terminal cancer.⁵⁻⁹ Therefore, physicians are poorly prepared to deal with the special situations that occur at home or in the continuing care facilities. The need for fundamental changes, including a change from an institutional to a community teaching base, was endorsed by all groups in a recent survey of faculties of medicine in the US.¹⁰ However, very limited change has occurred in that direction. The profession's reluctance to place greater emphasis on general medical education and on the recognition of illness as a family and community problem has been ascribed to an overemphasis on scientific training.9-11

There are also a number of practical obstacles to community-based teaching. One of the most important is the time involved in driving from one location to another. Medical students and residents may not have access to independent means of transportation. On a home visit, participants might need to spend a long time on site and might even have to discuss the case in the presence of the patient and family, and would then need to move to another location with a consequent loss of time. Our findings suggest that the bus rounds provide a simple solution to these problems. We are unaware of similar programs for medical education.

Patients and families agreed to be seen during bus rounds, both at home and in the continuing care facilities. To save time, we conducted a comprehensive medical and physical examination, including symptom, cognitive and psychosocial assessment according to specific assessment systems¹² before the rounds. The visits by the team could thus be limited to approximately 15 to 20 minutes.

There was a high degree of satisfaction with the educational experience on the part of regular attendants and one-time visitors and on the part of physicians and nurses. These findings suggest that the bus rounds can be used effectively for both groups. We hope that the recognition of 4 hours of educational credits by the College of Family Physicians of Canada will encourage family physicians to join the educational activities regularly.

The overall cost of the rounds is low and could easily be covered by a small contribution from the participants or a sponsor. We did not include the secretarial time for typing and photocopying the itinerary and case descriptions and preparing the educational packages but estimated it at 2 to 3 hours per round. Likewise, we did not include the replacement cost for staff participating in rounds.

Important issues in planning a bus round include ensuring that the bus is quiet and comfortable and has a good audio system, selecting patients and preparing case summaries with care, and having an adequate selection of journal articles. Special emphasis should be placed on adequate presentation of the patient cases and journal articles, ideally following written guidelines.

The bus rounds format has a number of limitations. It does not provide enough time for trainees to assess cases comprehensively. Because of the number of participants, only a limited psychosocial assessment is possible during the visit, so most of this takes place before the round. More important, there is no opportunity for follow-up, and therefore the effectiveness of the proposed interventions and the natural course of the disease, as well as the family's reactions, are not available to participants.

Bus rounds should thus be seen as only a part of a comprehensive community care education program; ideally, they should be accompanied by a one-to-one preceptor component. Nevertheless, they provide a unique opportu-



nity for an intensive exposure to community-based learning for physicians, nurses or students who have limited educational time available. They also allow physicians who regularly practise in the community to compare notes on observed problems and solutions and to implement rapidly new developments in assessment and management of patients with terminal illnesses.

References

- Cancer pain: a monograph on the management of cancer pain. Ottawa: Health and Welfare Canada. Cat no H42-2/5 1984E.
- World Health Organization. *Cancer pain relief.* Geneva: The Organization; 1986.
- World Health Organization. World Health Organization Expert Committee report 1990, cancer pain relief and palliative care. Geneva: The Organization; 1990. Technical report no. 804.
- Bruera E. Symptom control in patients with cancer. J Psychosoc Oncol 1990;8(2/3):47-73.
- 5. Cleeland CS, Gonin R, Hatfield AK, Edmonson JH, Blum RH, Stewart JA, et

al. Pain and its treatment in outpatients with metastatic cancer. N Engl J Med 1994;331:1528.

- Oliver D. Training in and knowledge of terminal care in medical students and junior doctors. *Palliat Med* 1976;115:119-21.
- Buchanan J, Millership R, Zalcberg J, Milne J, Zimet A, Haines I. Medical education in palliative care. *Med J Aust* 1990;152:27-9.
- Goldberg R, Guyadagnoli E, LaFarge S. A survey of housestaff attitudes towards terminal care education. *J Cancer Educ* 1987;2(3):159-63.
- Scott J, MacDonald RN. Education in palliative medicine. In: Doyle D, Hanks G, MacDonald N, editors. Oxford textbook of palliative medicine. Oxford: Oxford University Press; 1993. p. 761-80.
- Cantor JC, Cohen AB, Barker DC, Shuster AL, Reynolds RC. Medical educator's views on medical education reform. *JAMA* 1991;265:1002-6.
- Bloom SW. Structure and ideology in medical education: an analysis of resistance to change. *J Health Soc Behav* 1988;29:294-306.
- 12. Bruera E. Patient assessment in palliative care. Cancer Treat Rev 1996;22:3-12.

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