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*This article has been peer reviewed.*

CMAJ 2000;163(3):298-9

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# Providing after-hours on-call clinical coverage in academic health sciences centres: the Hospital for Sick Children experience

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## Abstract

AN INCREASING NUMBER OF ADMISSIONS OF PATIENTS requiring complex and acute care coupled with a decreasing number of pediatric postgraduate trainees has caused a shortage of house staff available to provide after-hours on-call coverage in the Department of Pediatrics at Toronto's Hospital for Sick Children. The Clinical Assistant program created to deal with this problem was short on staff, did not provide adequate continuity of care and was becoming increasingly unaffordable. The Clinical Departmental Fellowship program was created to address the problem of after-hours clinical coverage. The program is aimed at qualified pediatricians seeking additional clinical or research training in one of the subspecialty divisions in the Department of Pediatrics. We describe the hiring process, job description and evolution of the program since its inception in 1996. This program has been mutually advantageous for the individual fellows and their sponsoring divisions as well as the Department of Pediatrics and the Hospital for Sick Children. We recommend the introduction of similar programs to other academic medical departments facing staff shortages.

Over the last decade the number of medical school graduates and pediatric postgraduate trainees in Canada has decreased.<sup>1</sup> Also, over the last 2 decades the frequency of house-staff nights on call has been restricted. Between 1994 and 1998 the number of admissions to the Department of Pediatrics at Toronto's Hospital for Sick Children increased by 7.6%. The mean length of stay increased from 6.95 to 7.18 days, and there was an increase in the complexity and acuity of care. In addition, new high-intensity-care areas emerged, such as the Bone Marrow Transplant unit.

These combined factors resulted in a large shortage of house staff available to provide after-hours pediatric on-call coverage at the hospital. Pediatricians and, occasionally, family physicians were being hired as clinical assistants and were paid on an hourly basis to fill gaps in the call schedule. The large number of people involved resulted in poor continuity of care and was difficult to coordinate administratively. The number of qualified physicians willing to provide this coverage was limited. The financial costs to the Department of Pediatrics were climbing steadily.

A partial solution to these problems was the Clinical Departmental Fellowship program for the hospital. In this report we describe the program and its results.

## Program description

Advertisements are placed annually in 4 leading international pediatric journals inviting applications from qualified pediatricians in Canada and abroad who are seeking additional clinical or research training, or both, for a 1-year term, in any of the divisions and programs of the Department of Pediatrics. These fellowships are for additional or "top-up" training, but they do not provide credit toward qualification under the Royal College of Physicians and Surgeons of Canada. Salary is paid at the level of a fellow in the fifth year of postgraduate training. Each fellow agrees to provide clinical services consisting of 5 in-house overnight 15-hour shifts and 2 in-house weekend 24-hour shifts per month, covering as a core pediatric resident. For their daytime activities the fellows develop their program, together with the divisional fellowship director, in order to meet their objectives from a clinical, educational and research perspective.

Appointments to the Clinical Departmental Fellowship program are competitive and are based on the candidate's qualifications and the quality of the training experience to be provided by the host division. Fellows may compete for a second year of training if they so desire.

At the end of the year the fellows are asked to provide a brief report on their activities during the year and feedback on their participation in the after-hours on-call schedule. Feedback is also requested from the clinical directors and nursing staff responsible for the units covered by the fellows.

## Results

The fellowship program has been expanded since its inception. In its first year (1996/97) 3 fellows were hired; in 1999/2000, 20 fellows were hired, from over 50 applicants, for a total of 17 full-time-equivalent positions.

The number of divisions responsible for the fellows' daytime program increased from 2 in 1996/97 to 12 in 1999/2000. The group of fellows for 1998/99 comprised 10 men and 7 women drawn from 9 countries; the group for 1999/2000 consisted of 13 men and 7 women from 11 countries.

Regular feedback from the clinical directors and nursing staff has indicated a high level of satisfaction with the clinical services provided by this group. Several fellows, particularly those with ambitious research agendas, found that the number of calls was fairly onerous and that this interfered with their ability to achieve their objectives. Other fellows, generally those with a more clinical inclination, reported that their on-call experience was constructive and educational.

The academic productivity of this group has been high. Nine of the 11 fellows in 1997/98 completed a brief report on their daytime activities. In addition to their clinical activities, this group produced 23 abstracts, 28 peer-reviewed publications, 9 manuscripts in progress and 3 book chapters. Activities within the hospital included the development of several clinical practice guidelines and presentations by 2 fellows of their work at the Department of Pediatrics Grand Rounds. Three fellows took courses at the University of Toronto, in clinical epidemiology, health administration and business administration, and 2 fellows successfully completed master's degrees.

## Comments

The fellowship program is innovative and benefits the individual fellows and their sponsoring divisions as well as the Department of Pediatrics and the Hospital for Sick Children.

The fellows, who are generally drawn from around the world, are given an opportunity to gain North American experience in their subspecialty of choice. They are able to individualize their goals and objectives and, in addition to their clinical experience, they have been highly productive in academic activities. Of the 9 fellows in 1997/98 who completed the feedback survey, 2 returned for a second year of clinical fellowship. The 2 Canadian graduates in the

group have been appointed as full-time staff at the Hospital for Sick Children, and most of the others returned to staff consultant jobs in their own country. Preliminary feedback from the 1998/99 group suggests similar outcomes.

Subspecialty divisions are strengthened by the addition of fellows who are highly qualified and bring with them international experience and fresh ideas. Many of the fellows choose to do clinical work and therefore relieve some of the clinical load from the rest of the team during regular daytime hours.

The Department of Pediatrics benefits through hiring enough staff to cover the gaps in the on-call schedule. Administrative planning and continuity of care is improved by having a smaller group of people under contract to provide all the required after-hours coverage. The qualifications and experience of the fellows ensure a high standard of clinical care. The financial savings of providing salaried training positions as opposed to having to pay physicians an hourly rate in competition with fee-for-service opportunities are substantial.

The main challenges that we have encountered include ensuring that the fellows achieve their objectives while still fulfilling their service obligations. Striving for a high level of clinical competence among the successful applicants has been easier than expected, owing to the large number of candidates applying for the positions. It is essential to ensure that the candidates meet all of the requirements for an educational licence and that the licensing process is started at least 6 months before the fellowship.

## Conclusion

The Clinical Departmental Fellowship program at the Hospital for Sick Children is an innovative, highly successful strategy to provide excellent and affordable on-call clinical coverage at our institution. The program also contributes to the academic strength and international reputation of the Department of Pediatrics. A similar program may benefit other medical departments facing clinical coverage problems.

We acknowledge the contribution of Dr. Barry Smith, currently Dean of the Faculty of Medicine, Queen's University, Kingston, Ont., in the original development of the program, Dr. Hugh O'Brodovich, Professor and Chairman, Department of Pediatrics, University of Toronto, for reviewing an earlier version of the manuscript, and Ms. Debi Senger, Health Records, Hospital for Sick Children, for providing the patient data.

Competing interests: None declared.

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