The Balmain Hospital General Practice Casualty: An alternative model of primary health care provision

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Abstract

The Balmain Hospital General Practice Casualty is a unique casualty style service, staffed and run by local general practitioners. It is a joint initiative of the Central Sydney Area Health Service and the Division of General Practice, Central Sydney Area, and is jointly funded by the Area Health Service and the Commonwealth.

The casemix seen and type of services provided suggest that the service is intermediate between that provided by general practitioners and that provided by emergency departments. The service is well accepted by patients and local general practitioners. A number of benefits are seen by both service providers and users in terms of continuity of care and increased general practitioner skills.

Introduction

The Balmain Hospital General Practice Casualty (GPC) is a casualty style service, staffed and run by general practitioners, providing primary care services to ambulant patients in Leichhardt Municipality and surrounding areas, an immediate catchment area in excess of 100 000 people.

In this paper we describe the historical background to, and justification for, the GPC and provide a description of the service as it presently operates.

Background to the service

The idea for a primary care service run by general practitioners at Balmain Hospital arose in 1993, when the hospital was undergoing a role change from a multi-service district-level general hospital to one with a principally specialist geriatric and rehabilitation role. At the time of the role change, the local community voiced concerns over what it perceived as the risk that the hospital would close, and conducted a vigorous campaign to ensure that this did not occur. A significant component of this concern related to the proposed closure of the hospital emergency department.

In response to these community concerns, the Division of General Practice approached the Central Sydney Area Health Service with a proposal to establish in the hospital a casualty style service staffed and run by general practitioners. The division felt the service was desirable for several reasons. First, it strengthened ties between general practitioners and the hospital sector. Second, it provided general practitioners who worked in the GPC with the opportunity to practise skills which they might not otherwise use regularly. These include not only clinical skills, but also the opportunity to work in a team environment and to more closely view the hospital-based processes of patient care. Third, the GPC had the potential to enhance continuity of patient care. A policy of the GPC is to provide all patients of the service with a letter for their regular general practitioner, and to encourage patients who do not have a general practitioner to find one who is appropriate, that is, conveniently located and who speaks an appropriate language. Fourth, the existence of a 24-hour primary care service on the peninsula was thought to act as a disincentive to entrepreneurial 24-hour medical clinics seeking to operate in the vicinity.

The Central Sydney Area Health Service supported the concept, and an approach was made to the General Practice Branch of the then Commonwealth Department of Human Services and Health to co-fund the service. The case for Commonwealth funding was supported by the argument that, were the GPC not available, many of the patients who used it would seek care in Medicare-funded

general practices and 24-hour medical centres. This approach was successful, and the service was funded for three years on the basis that the Commonwealth would meet the cost of medical services, while the Central Sydney Area Health Service would meet the cost of nursing staff, infrastructure and consumables. In addition, the Commonwealth agreed to fund a research project to evaluate the GPC model and compare it with other primary medical services operating in the Central Sydney Area. The results of this research have been published elsewhere (Bolton & Mira 1994; Mira et al. 1995; Bolton et al. 1995; Mira et al. 1996a; Mira et al. 1996b; Mira et al. 1996c) and underpin the following description of the service.

Description of the service

The service is staffed by general practitioners who are members of the Division of General Practice. A general practitioner is in attendance between 9.00am and 10.00pm seven days a week. Overnight cover is provided by hospital residents who also care for the inpatients. In addition, a general practitioner is available on call overnight. Two nursing staff are rostered at all times. Routine pathology tests are referred to Royal Prince Alfred Hospital. Physiotherapy, social work, speech therapy and a limited range of urgent pathology tests are available in office hours.

Approximately 2500 x-rays are ordered annually by the GPC. Radiology services are available between 8.00am and 6.00pm Monday to Friday and between 9.00am and 5.00pm on weekends. All x-rays are reviewed by a radiologist within two working days of being taken. To assess the need to extend the hours of the radiology service, data were collected for a one-month period from 72 patients who presented after hours and who the doctor felt required an x-ray. Twenty-two (30.5 per cent) of these were seen between 6.00pm and 9.00pm, 28 (38.9 per cent) between 9.00pm and midnight, and 22 (30.5 per cent) between midnight and 8.00am. Fourteen patients (19.4 per cent) were transferred to another hospital, none solely because they needed an immediate x-ray, and 52 (72 per cent) were asked to return for x-ray the next day. No follow-up was documented for six patients (8 per cent). It was concluded that patient outcomes in the GPC are rarely, if ever, negatively affected by the absence of after-hours radiology services.

From the GPC's inception, there were a number of protocols put in place to ensure that the appropriate level of care was provided to patients presenting to it. A policy was adopted that acute emergencies were to be managed as they would by the treating general practitioner in their practice. This required arrangements with the

ambulance service to ensure that patients are only brought to the GPC when this has previously been arranged between the patient's general practitioner and the doctor on duty in the GPC. No emergency ambulances come to the service. Similarly, an arrangement was made for ambulances to respond to calls to the GPC as they would to a general practitioner's surgery. Acutely unwell patients are transferred from the GPC to the appropriate tertiary service by ambulance. Transfer of these patients is not to be delayed to implement further treatment, unless it is likely to significantly alter the patient's prognosis. This is done to ensure optimum patient outcomes. A list of procedures, including major regional anaesthesia, elective intubation and elective defibrillation, are proscribed, and conditions such as suspected meningitis, sub-arachnoid haemorrhage, acute myocardial infarction and obstetric emergencies are urgently transferred.

At the other end of the scale, close liaison is maintained with local general practitioners. It is unit policy that patients should receive a letter to their general practitioner after they have been seen in the GPC, and general practitioners are called when their patients are admitted or transferred from the service. Feedback has been sought from local general practitioners about these arrangements, and the response to both these, and the service more generally, is positive. Many local general practitioners have signs suggesting the GPC as an alternative primary care service when they are closed.

The experience in the service has been that these protocols have been successful. In general, the public appears to have understood the nature of the service provided, to have gone to their general practitioner where possible, and to an emergency department when necessary. Publicity directed to the local community about the GPC has helped patients make intelligent choices about the services they choose. There have been no unexpected deaths in the GPC, and

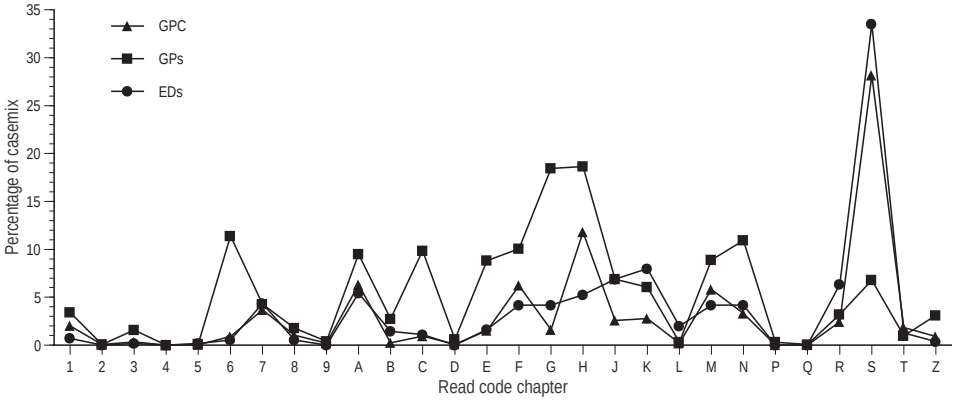

Figure 1: Casemix as defined by Read Code Chapter by Site

the number of patients in triage categories 1 and 2 (those relating to more acute emergencies) has fallen since the role change.

On average, the GPC presently sees 44 patients each day, admits one patient per day, and transfers two patients every three days. Approximately 10 per cent of patients are referred to the service directly by their general practitioner. Figure 1 shows that the casemix in the GPC is more like that seen in triage category 3, 4 and 5 patients in an emergency department than it is like the casemix in general practice. Nearly half of the casemix relates to injury and minor trauma (lacerations, sprains and fractures). Skin and eye problems are also relatively frequently managed, along with upper respiratory tract infections, asthma, gastro-enteritis, and other acute 'bread and butter' general practice. Interestingly, the service sees relatively few acute surgical or gynaecological problems.

The GPC is able to provide a number of services not usually available in a general practitioner's surgery. Facilities exist to observe patients for several hours, for example, for neuro-observations following a fit or minor head injury; to provide rehydration for moderately to severely dehydrated patients, who can then return home; to provide plaster of paris, suturing, and so on. The nursing staff have an important role in patient care and relevant expertise is encouraged. For example, they are very expert in dressings and the management of acute and chronic skin injuries.

Before the role change, the old Balmain Hospital Emergency Department saw an average of 50 patients per day, of whom eight arrived by ambulance and eight were admitted (not necessarily the same patients). Immediately after the role change in September 1993, the new GPC saw an average of 36 patients per day. This figure varies seasonally, and has gradually increased to 44 per day – the number presently seen. A significant change in patient numbers occurred following the shift of Royal Alexandra Hospital for Children from Camperdown (less than five kilometres from the GPC) to Westmead (over 20 kilometres away) in November 1995. At this time the number of children seen by the service increased by 50 per cent, and the overall number of patients being seen by the service increased proportionately.

The service is staffed by approximately 25 general practitioners who each work between one four-hour session per month and eight hours per week. In addition, there is a full-time director who is a Fellow of the Royal Australian College of General Practitioners. The director works clinically half time. Over the two and a half years of operation, the group of general practitioners working in the service has remained relatively stable, with fewer than 10 general practitioners leaving the service in that time. General practitioners in the service participate in a

number of peer review and quality assurance activities, including education sessions and the development and implementation of good clinical practice guidelines.

This figure shows that, if care of first choice were not available, community patients are most likely to seek alternative care in the community, while hospital patients are most likely to seek care in another hospital. Data from the research project indicates that approximately half of the patients seen by the GPC would seek care in a general practice setting if the GPC were not available, while the other half would seek care in an emergency department. Interestingly, 5 per cent of patients say that they would not have sought care elsewhere if the service was unavailable. The research also shows that patients who present to the GPC regard themselves as more seriously unwell than those who are seen in general practice, but less seriously unwell than those seen in an emergency department. Forty-six per cent of patients gave the GPC the highest possible rating for each question in the CS8b, an eight-point internationally validated patient satisfaction instrument, indicating a high level of satisfaction with the service.

Service budget, funding and cost-effectiveness

The GPC has an annual budget of $985 000 – $312 000 per annum from the Commonwealth, which is used to pay for general practitioner service provision and the director's salary, and $673 000 from the Area Health Service, which meets the rest of the service costs. In addition, the cost of radiology, pathology, x-ray and service accommodation are met by the Area Health Service from other budgets, of which the GPC uses a portion.

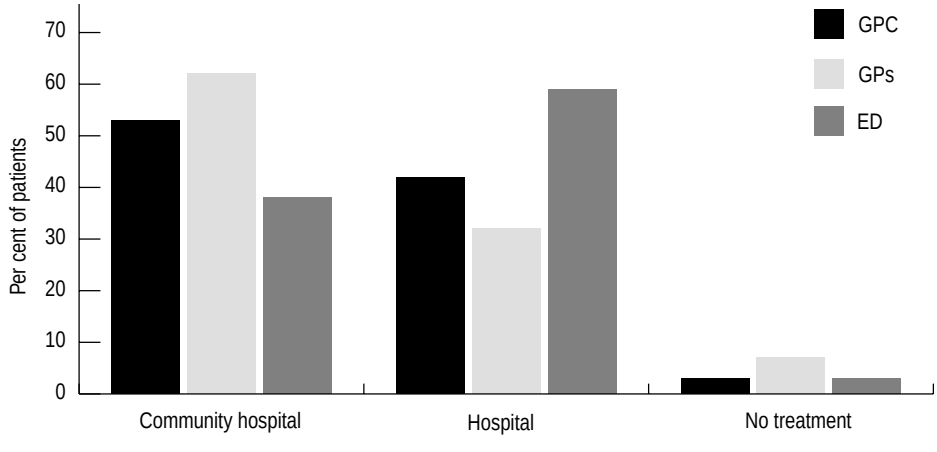

Figure 2: Patient alternative choice of service if service of first choice is not available

Based on figures obtained by the research project, and using methods described elsewhere (Bolton et al. 1996), a variety of comparisons can be made between the costs of the GPC and other services. In the GPC, the average per patient cost is $79.96, compared with $94.29 for patients in triage categories 3, 4 and 5 treated at nearby emergency departments. Of this total, the average per patient cost of radiology, pathology and pharmacy services is $14.30 in the GPC, $33.15 for emergency department patients, and $19.59 for patients treated by community general practitioners. The difference in cost between the services staffed by general practitioners and the emergency departments is significant, but the difference between the GPC and community general practice is not. This overall cost differential between services provided by general practitioners and emergency departments is maintained for a number of specific conditions, for example, urinary tract infection, upper respiratory tract infection, gastro-enteritis and otitis media.

Based on the average cost of treating comparable patients in both settings and the number of patients who say that they would go to an emergency department if the GPC were not available, it is possible to estimate that, if the GPC were to close, the additional annual cost to local emergency departments would be $636 000. Similarly, the estimated annual cost to the Commonwealth of all services provided to patients who presently attend the GPC, but who say they would attend a general practitioner if the GPC were not available, is $382 000.

Table 1: A comparison of the average per patient cost of radiology, pathology and pharmaceutical services in the GPC and emergency departments

	GPC (n = 384)	Emergency department (n = 190)
Prescriptions	$2.46	$2.18
Pathology services	$3.10	$12.13
Imaging	$8.74	$18.84
Total	*$14.30*	*$33.15*

Conclusion

The General Practice Casualty at Balmain Hospital provides a cost-effective model for primary medical care service delivery. It addresses the needs of patients and general practitioners for a service which is intermediate between that provided by general practitioners and that provided by hospital emergency departments. The local community appears to have recognised the limitations

of the service, to be using it appropriately, and to be satisfied with this use. It is also well regarded by the local general practitioner community. It provides a variety of opportunities for closer ties between general practitioners and the hospital, and provides an attractive alternative service for their patients when the need arises.

At the time of writing, negotiations are being conducted between the Area Health Service, New South Wales Health and the Commonwealth to secure further funding for the GPC.

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