

Is there a role for podiatric surgeons in public hospitals? An audit of surgery to the great toe joint in Victoria, 1999–2003

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Abstract

This project aimed to describe and compare the frequencies of procedures performed by podiatric surgeons and orthopaedic surgeons for elective surgery to the great toe joint, an area of identified clinical need. The objective was to determine whether podiatric surgeons in the Australian context possess a surgical skill set which can be utilised in the public health sector. The Medicare Benefits Schedule (Medicare Australia) was reviewed to identify all codes relating to great toe joint surgery and frequency data were obtained for the period July 1999 to June 2003. A separate audit of the activity of Victorian podiatric surgeons was conducted.

During the 4 years in Victoria, the number of procedures performed on this joint by 152 orthopaedic surgeons was 5882. Two podiatric surgeons in Victoria performed 1260 operations on this joint over this period (17.6% of great toe joint surgery on average each year in the private sector). Utilising orthopaedic workforce figures and on a per-surgeon basis, during this period the podiatric surgeons performed this type of surgery between 2 and 16 times more often than the orthopaedic surgeons, and consideration should be given to using these skills in the public sector to address the growing demand.

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What is known about the topic?

In Victoria, the public hospital waiting times for elective surgery to the great toe joint are in excess of the national averages, and waiting times are likely to increase with the ageing population.

What does this paper add?

This audit demonstrates that the workload of podiatric surgeons in the private sector includes a relatively high proportion of great toe joint surgery. Utilisation of such skill sets by the Victorian public sector could be considered.

What are the implications for practitioners?

In Victoria, a public hospital post which allows integrated participation of podiatric surgery within an appropriate clinical pathway presents as a clear option for health workforce reform.

IN AUSTRALIA, innovation in elective orthopaedic surgery has been on the agenda for some time. In 2006, the Victorian government committed to a “blitz on elective surgery”, with a focus on reducing orthopaedic waiting lists and a priority for semi-urgent and non-urgent candidates.¹ The orthopaedic waiting list initiative was undertaken in an attempt to reduce the long waiting times for elective orthopaedic surgery, based on severity of disease and quality of life factors.²

Orthopaedic surgeons are the medically trained surgeons traditionally accepted in the Australian health care sector as responsible for the provision of reconstructive bone and joint surgery. According to workforce research published in 1998, there were 710 practising orthopaedic surgeons in Australia (152 in Victoria).³

A common area requiring orthopaedic surgery is the great toe joint, primarily for the treatment of hallux valgus “bunions” and hallux rigidus.^{4,5} Bunions are a progressive⁶ and degenerative^{6,7}

condition which has been found to have a negative impact on quality of life⁸ and is associated with impaired balance and increased risk of falling in older people.⁹ Hallux rigidus is an arthritic condition which has a significant impact on foot function and foot pain.¹⁰ Prolonged waiting times for great toe joint surgery are likely to have a negative effect on surgical outcomes.

In Victoria, the waiting times for surgery to this joint have been shown to be in excess of national averages for selected hospitals. From July 2005 to June 2006, the time to treat (surgery) for patients with bunion and/or digital deformity was longer than the national standard of 13 weeks for the Austin, St Vincent's, Maroondah, Dandenong, Monash and Frankston Hospitals for category 2 patients. Furthermore, patients have to wait up to 2 years for surgery at Casey, Maroondah and Dandenong Hospitals for category 3 patients, where the national standard is 52 weeks. These data represent median time to treat, where only half of the patients received surgery.¹¹

There are no definitive figures for the percentage of the orthopaedic workforce involved in foot surgery. On the Australian Orthopaedic Association website there are 17 orthopaedic surgeons who list foot and ankle as an area of special interest in Victoria.¹² In a review of outcome measures in orthopaedics, O'Doherty reported on data which suggested that between 15% and 20% of orthopaedics in the United States was foot related. He expressed the view that the foot was a "an orthopaedic Cinderella and for many surgeons has a low priority".¹³ (p. 245)

The broader use of podiatric surgeons to supplement the orthopaedic workforce in areas of skill base has been proposed as a means of allowing more effective use of the orthopaedic workforce.¹⁴ Podiatric surgery is a specialist field of the podiatry profession in Australia, and other countries including the US and the United Kingdom. Podiatric surgeons are not medical practitioners; they are podiatrists who have undertaken postgraduate training to enable licensing for surgery of the foot and ankle. The view of the Australasian College of Podiatric Surgeons is that the education (undergraduate and postgraduate) and practical training

program of podiatric surgeons in Australia is comparable to those trained within the US and the UK. The notable exception is the lack of public hospital-based clinical training opportunities for podiatric surgeons in Australia.¹⁵

Utilisation of podiatric surgeons in the Australian health care sector is low compared with the US and the UK. In the US during 1982, 60% of elective foot surgery was performed by podiatrists, operating both in the public and private systems.¹⁶ In the UK, podiatric surgery is provided by the publicly funded National Health Service (NHS).^{5,17} Australian audit data suggest that in 1996, 10% of all elective foot surgery in the private sector was performed by podiatric surgeons.¹⁸ The type and prevalence of conditions treated surgically by podiatric surgeons in Australia are similar to those treated by podiatric surgeons in both the US and the UK.¹⁹

Extending the role of podiatric surgeons within the Australian public health sector to supplement the orthopaedic workforce presents a reform option with international precedent. In the UK, restructuring of the NHS during the 1980s increased public access to podiatric surgery.²⁰ Within the NHS, various audits have been performed on the activity of podiatric surgeons, including economic reviews, patient satisfaction surveys and recording of adverse outcomes.^{17,21-23} The results have been universally supportive of podiatric surgical outcomes. This is further supported by general practitioner surveys reporting high levels of patient satisfaction, few postoperative complications, shorter waiting lists and considerable expertise.²⁴

A model which incorporates podiatric surgery within an orthopaedic unit contributed to an award for excellence and innovation in hospital medicine in the UK.²⁵ In this particular Trust hospital, a consultant podiatric surgeon is part of the orthopaedic unit. The podiatric surgeon performed over 70% of the elective foot and ankle surgery in 2005-06 (480 of 699 cases).²⁶

With an ageing population, foot problems such as bunions are likely to represent a growing area of community concern and consequent need for surgical services.

I Medicare items processed from July 1999 to June 2003

Great toe joint surgery: services by state

	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Total
Total services by MBS code	6212	5882	3437	2462	2577	715	418	131	21 834
Services per 100 000 population	80	103	79	142	117	125	102	55	95

MBS = Medicare Benefits Schedule.

This will have a direct impact on elective surgical waiting lists. The objective of this audit is to determine if podiatric surgeons in the Australian context possess a skill set which can be utilised to assist in the reduction of elective surgery waiting lists.

Methods

Medicare data collection

Data for first metatarsophalangeal joint surgery (hallux valgus and rigidus surgery) were obtained from the Medicare Australia website and compared with private hospital audits of the same procedures (according to the Medicare Benefits Schedule [MBS]) for podiatric surgery. The MBS is primarily utilised to identify procedures which attract a government subsidy if the service is provided by an eligible practitioner. For comparative purposes, data review was confined to the state of Victoria and over a 4-year period from July 1999 until June 2003.

The data relating to Medicare procedural rebates are limited to private services and do not include public hospital services or individuals who come under third party compensation (workers compensation, Transport Accident Commission and Veterans' Affairs). The activity of podiatric surgeons is also not reported, as no Medicare rebate (subsidy) is currently applicable for these services.

MBS codes are generally procedure specific, not condition specific. For instance, in the case of hallux rigidus and valgus, several different procedure codes may apply. Twelve MBS codes which

may be utilised to describe operations for hallux valgus and rigidus were identified.

Podiatric surgeon data collection

At the time of the audit only two podiatric surgeons were practising in Victoria. Data were collected from the records of the hospital where the practitioners performed the surgery. The collection was manual and cross-checked with the hospital coding department. All data were de-identified and collected over the same period in time (July 1999 to June 2003).

Ethical approval was granted before the study began by the Human Ethics Committee, La Trobe University, Melbourne. Before collection of data from the hospital, written permission was obtained from the podiatric surgeons to allow access to deidentified hospital data.

Results

Medicare data

During the audit period (July 1999 to June 2003) 21 834 operations for hallux valgus and rigidus were recorded on the Medicare Australia database nationally. These figures represent medical (orthopaedic) performed procedures. These figures included bilateral operations which were counted as two operations. Victoria recorded 5882 operations or 103 per 100 000 of population (Box 1).

Service provision per 100 000 of population varied between the states for this period between 55 (Northern Territory) and 142 (South Australia).

2 Comparison of podiatric surgical activity to orthopaedic surgeons (Victorian data)

Years (July to June)	No. of procedures performed on great toe joint			
	Medicare rebated (orthopaedic surgeons)	Non-Medicare-rebated (podiatric surgeons)	Total no.	Podiatry
1999–2000	1281	293	1574	18.6%
2000–2001	1460	292	1752	16.7%
2001–2002	1494	355	1849	19.2%
2002–2003	1647	320	1967	16.3%
Total	5882	1260	7142	17.6%
% increase 1999–2003	29%	9.2%		

3 Procedure rates per surgeon, Victorian private sector 1999–2003

Procedure	No. of surgeons	No. of procedures	Rate (procedures/surgeon)
Orthopaedic – based on workforce data	152	5882	39
Orthopaedic – based on registered interest in foot	17	5882	346
Podiatric – based on hospital audit	2	1260	630

Podiatric surgeon audit data

Box 2 shows the number of procedures performed on the great toe joint by the podiatric surgeons over the 4-year assessment period, expressed as a percentage of the number of procedures documented in the Medicare Australia database. Over the audit period, 17.6 % of all first metatarsophalangeal joint surgeries were performed by the two podiatric surgeons.

The precise number of medical (orthopaedic) surgeons providing the services is unknown to the general public as Medicare Australia holds this information in confidence. Procedure rates have therefore been calculated based upon orthopaedic workforce data and publically declared interest in foot/ankle surgery by orthopaedic surgeons (Box 3).

Discussion

The main objective of this audit was to determine if podiatric surgeons in the Australian context currently possess a skill set which can be utilised in the public health sector. The limitations of the audit require comment. Firstly, in Australia, the activity of the medical/orthopaedic community is monitored through Medicare payments. Reports on these payments are publicly available. No data are publically available on the frequency of procedures performed by any one provider. Additionally, under current arrangements no independent agency collates data on the individual activity of podiatric surgeons. Second, in Victoria no podiatric surgeons currently perform surgery in the public sector. These issues mean that it is extremely difficult to compare the activity of podiatric surgeons and orthopaedic surgeons at a procedure-specific and outcome level. In light of this, the scope of this project was limited to evaluation of procedural frequencies.

In the 4 years up to July 2003, Medicare Australia funded medical practitioners to perform 21 834 operations on the great toe joint nationally within the private sector. On a per-capita basis from state to state, a wide range of frequency was observed with this surgery, from a low of 55 per 100 000 to a high of 142 per 100 000. The Victorian figure sits in the mid range at 103 per 100 000. Up to June 2003, Victoria saw an increase in output (29%) for this surgery in the private sector by orthopaedic surgeons. Given that Victorian Department of Human Services

figures indicate that up to June 2006 the wait for surgery of this type in the public sector was in excess of national standards, increased orthopaedic activity in the private sector does not appear to have offset the problem in the public sector.

During the audit period, two podiatric surgeons operating in the Victorian private hospital system performed a comparatively high proportion of privately performed operations on the great toe joint (17.6%). Based upon the results of this audit and on a per surgeon basis, podiatric surgeons performed great toe joint surgery at between two and sixteen times the rate of orthopaedic surgeons. The activity level was maintained at a relatively constant level over the 4 years of the audit. Given that competency in the performance of surgical procedures requires repetition,²⁷ and that there is evidence of positive quality of life outcomes following foot surgery performed by Australian podiatric surgeons,^{28,29} these data suggest that podiatric surgeons are likely to possess a skill set which is comparable to medical providers of the same procedures.

The results of this audit add to the debate surrounding health workforce reform. In Victoria, a public hospital post which allows integrated participation of podiatric surgery within an appropriate clinical pathway presents as a clear option for health workforce reform. Additionally, the current lack of public training places in Australia for podiatric surgeons is limiting the effective use of the podiatric workforce. Future workforce flexibility will be enhanced if surgical training places are created for podiatrists in the Victorian public hospital sector.

Internationally, programs where podiatric surgery is incorporated into the public sector have been a success over a long period of time. Such incorporation is well established in both the US and the UK. There are variations in the models of incorporation. These models range from the use of independent units to incorporation of podiatric surgeons within general surgical or orthopaedic units. In the Victorian context, perhaps it is now not a question of should this reform occur but which model will be most appropriate.

Conclusion

This project aimed to compare the frequencies of procedures performed by podiatric surgeons and medical practitioners (orthopaedic surgeons) in the Australian private sector. The results suggest that in light of international experience, local community need and current health reform, initiatives designed to increase utilisation of such skill sets by the Victorian public sector should be explored. These initiatives should allow for public hospital positions for podiatric surgeons and training of future podiatric surgeons in an integrated manner.

Competing interests

The authors declare that they have no competing interests.

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