Improving patient access to vital orthotic and prosthetic services

Federal Budget Submission 2015-16
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EXECUTIVE SUMMARY

The Australian Orthotic Prosthetic Association (AOPA) is the peak professional body representing Orthotist/Prosthetists nationally. AOPA provides a variety of services and information to members as well as Government and stakeholder representation, ensuring the maintenance of standards for the profession for the benefit and protection of the public. AOPA plays a key role in the self regulation of the profession nationally. AOPA represents approximately 80% of the profession, which is estimated at 400 practitioners nationally.

Orthotist/Prosthetists assess the physical and functional limitations of people resulting from illnesses and disabilities, including limb amputations, and provide orthoses and prostheses to restore function or compensate for muscular and skeletal disabilities. Orthotist/Prosthetists work as part of the multidisciplinary healthcare team to deliver essential acute and rehabilitation treatments for common medical conditions such as; limb amputation, stroke, diabetes, cerebral palsy and trauma events [AOPA Orthotist/Prosthetist Occupation Summary (2015)].

Orthotist/Prosthetists are a small but vital profession, providing essential services to some of Australia’s most vulnerable population, including those with chronic diseases and disabilities, the Indigenous and rural and remote population. Whilst access to health services is generally varied, it is dramatic for people wishing to access an Orthotist/Prosthetist. Restrictions in access can be associated with access to funded consultations in the primary care setting and well as geographic dispersion of the profession.

ACCESS TO CONSULTATIONS IN THE PRIMARY CARE SETTING

In order to be effective, orthotic management for people with chronic conditions needs to be embedded in the primary care sector. Currently, the pathways and funding models providing access to orthotic services are too complex and often result in the treatment of patients with chronic disease related mobility conditions within the over-burdened hospital sector. This means that many patients, particularly those from low socio-economic groups, present at the “crisis point of care”. At that point, care is more expensive, less effective and creates unnecessary strain on the hospital system. Improved access to Orthotists in the primary care setting will deliver better care outcomes and socio-economic gains.

Australia has the second highest lower limb amputation rate in the developed world, with one Australian losing a lower limb every 3 hours as a direct result of diabetes related foot disease. Research shows that Orthotists significantly contribute to reduced amputation and re-ulceration rates through the use of total contact casting, footwear with modifications and orthoses. This intervention however can only be effective if provided in a timely manner, through early referral and consultation. Research clearly demonstrates that total contact casts increase the number of ulcers healed, reduce healing times and amputation rates. At present, there are 6,000 partial foot amputations in Australia each year with an indicative cost of $160 million. If 10% of these could be avoided by use of orthotic services, the savings would be in the order of $16 million annually. In addition, more timely access would generate further cost savings through decreased emergency department presentations and hospital admissions, improved economic and social participation and a decreased need for assistance.

WORKFORCE DISPERSION AND RETENTION
Workforce data is essential for evidenced and effective workforce planning and policy development. The importance is signified through one of Health Workforce Australia’s (HWA) primary strategic objectives in the 2013-16 strategic plan. Unfortunately small and self regulated professions were not included in the scope of work completed by HWA, but have equal if not greater need for workforce data and trend analysis.

Australia’s Orthotist/Prosthetist national practitioner rate is 1.09 per 100,000 population (Figure 1), which is well below international rates (1.48/100,000 in the United Kingdom, 2.4/100,000 in the United States of America) and the published recommended rate for Orthotists of 3.0 practitioners per 100,000 population. There is significant geographic dispersion and concerning retention trends. With rising chronic disease rates, especially in rural/remote and Indigenous populations, it is essential that thorough workforce data is captured to underpin education and workforce decisions.

RECOMMENDATIONS:

1. AOPA recommends the amendment of the Chronic Disease Management (CDM) program to include the services provided by Orthotists. This recommendation is well supported by:
   - Evidence of effectiveness of Orthotist interventions in preventing diabetes related amputations
   - Evidence that the delivery of preventative health in the primary care setting is more cost effective and leads to better outcomes than delayed, acute care presentations
   - At present there are 6,000 partial foot amputations performed in Australia each year, with an indicative cost of $160 million - a 10% reduction would realise a $16 million saving annually

2. AOPA requests $100,000 funding to support Orthotist/Prosthetist workforce research including detailed workforce demographics, dispersion and retention rates. This request is well supported by:
   - Recent research completed by AOPA highlighting significant dispersion issues for the profession, leading to varied practitioner accessibility for patients
   - All Australian states having practitioner to population rates well below the internationally accepted benchmark and with significant variation in dispersion
   - The Government supported HWA work plan demonstrating the priority of evidence to underpin policy decisions relating to the allied health professions
KEY POINT 1:

Amend the Medicare Chronic Disease Management (CDM) program to include services provided by Orthotists. This will facilitate timely patient access to vital limb saving and mobility promoting treatments.

Orthotist’s role in provision of treatment to people with chronic diseases

Almost 1.1 million Australians currently have diabetes [1] and future projections suggest that one in every three Australian adults will develop diabetes by 2025 [2]. Australia has the second highest lower limb amputation rate in the developed world, with one Australian losing a lower limb every 3 hours as a direct result of diabetes related foot disease [3].

Between the years 2000 and 2010, the number of lower limb amputations in Australia increased by 14%, from approximately 7000 to 8000 per annum [4]. Of these, partial foot amputations now account for 75% [4]. With an increase in diabetes prevalence and Australia’s ageing population, the number of partial foot amputations is expected to triple by 2050 [5].

“Australia has the second highest lower limb amputation rate in the developed world”

“One Australian loses a lower limb every 3 hours as a direct result of diabetes related foot disease” [4]
Partial foot amputation often results in a cycle of mobility decline, increased use of health services and decreased health. Patients with partial foot amputations experience disproportionately high rates of wounds and complications, which lead to secondary amputation in one third of cases [4]. This demonstrates the importance of preventing the occurrence of partial foot amputations, with Orthotists playing a significant role in this.

Amputation is usually preceded by a foot ulcer [6] and follows a lengthy period of wound management and healthcare intervention. Orthotists reduce and redistribute foot pressure to help prevent occurrence and promote healing of ulcers. Prevention and healing can be achieved through use of a specially designed Foot Orthosis or, in more complex cases, may require a higher level, custom made Ankle-Foot Orthosis.

Another area of chronic disease management is post stroke complications, including the reductions in falls and secondary hospital admissions. Around 50,000 stroke events occur in Australia each year [7] and in 2012, over 420,000 people were living with the effects of stroke. By 2032, this will be around 709,000 Australians or 2.4% of the population [8]. As there are now fewer fatalities associated with stroke, more people experience the associated longer term health consequences.

More than two-thirds of patients who survive a stroke present with mobility difficulties and impaired walking [9] [10]. 65% of patients also require assistance with activities of daily living [11]. These difficulties increase the risk of falls [12], limit work participation and decrease quality of life [13] [14]. These patients also experience a higher rate of falls with 73% falling in the first 6 months after hospital discharge [15] and falls being the number one medical complication after acute stroke [16].

Patients who have suffered a stroke also experience more severe consequences from their falls, with fracture rates up to four times higher than the general population [15] [17]. Drop foot is a common post stroke complication and cause of falls. These falls can be successfully avoided with the use of an Ankle-Foot Orthosis which prevents the foot from dragging and provides improved balance and stability.

**SUMMARY**

- **Improved and timely access to Orthotists would decrease ulceration and partial foot amputation rates, ultimately decreasing the rate of lower limb amputation.**

- **Supporting safe and effective walking through early orthotic treatment minimises mobility and balance decline which helps prevent falls and promotes independence for patients who have suffered stroke.**

**Appropriate treatment at right time by the right practitioner**

AOPA supports the statement “right practitioner, in the right place, at the right time” by Allied Health Professions Australia (AHPA) which aligns with the Department of Health’s focus on “prevention and early intervention and a ‘best practice’ handling of chronic disease”. There is a shared understanding that timeliness of health care delivery is imperative in achieving optimal patient outcomes and managing health care expenditure. An early orthotic consultation as part of the Chronic Disease...
Management program would ensure the patient is fully informed of their future health service and orthotic management needs. This also provides the patient with an opportunity to make an informed choice to pursue their orthotic management beyond the initial consultation as required. Evidence indicates that, once services are integrated into the health system and/or patients receive a service they deem important, co-payments have been shown to have little effect on the decision to proceed with services [18] [19]. This indicates that well informed patients are likely to self-fund their ongoing orthotic needs.

In order to be effective, orthotic management needs to be embedded in the primary care sector. Currently, the pathways and funding models providing access to orthotic services are too complex and often result in the treatment of patients with chronic disease related mobility conditions within the over-burdened hospital sector. This means that many patients, particularly those from low socio-economic groups, present at the “crisis point of care”. At that point, care is more expensive, less effective and creates unnecessary strain on the hospital system. Improved access to Orthotists in the primary care setting will deliver better care outcomes and socio-economic gains.

Figure One: Options for access to funded orthotist consultation for chronic disease – via public hospital (current pathway – red arrows) or Chronic Disease Management Program (proposed pathway – green arrows)

This pathway highlights that, without timely provision of orthotic services in the primary care setting, the burden is transferred to the hospital sector. At the point of presentation to the hospital sector, patient mobility and quality of life have reduced and the cost of care is increased.
Realisation of positive health system and patient outcomes

By enabling Orthotists to deliver optimal outcomes to their patients, significant savings would accrue to the healthcare system through a reduction in the rate of preventable lower limb amputations and the complications and costs associated with falls and acute sector presentations, admissions and procedures.

Research shows that Orthotists significantly contribute to reduced amputation and re-ulceration rates through use of total contact casting, footwear with modifications and orthoses [20] [6]. Research also clearly demonstrates that Total Contact Casts increase the number of ulcers healed, reduce healing time and reduce amputation rates [21]. At present, there are 6,000 partial foot amputations in Australia each year with an indicative cost of $160 million. If 10% of these could be avoided by use of orthotic services, the savings would be in the order of $16 million annually. In addition, more timely access would generate further cost savings through decreased emergency department presentations and hospital admissions, improved economic and social participation and a decreased need for assistance.

Work undertaken in the United Kingdom demonstrates the economic benefits of providing timely access to orthotists. By improving GP access to Orthotists within the primary care sector, 390 million pounds per annum could be saved [22]. This was despite the fact that, in the UK, they also fully funded the cost of orthoses prescribed.

At present there are 6,000 partial foot amputations in Australia each year, with an indicative cost of $160 million

A 10% reduction would realise a $16 million saving annually
With one of the highest lower limb amputation rates in the developed world the health system must imbed best practice principles into the primary care setting. The inclusion of the services of Orthotists within the Chronic Disease Management Program would enable patient access to the expertise of the full suite of practitioners required to prevent lower limb amputations and falls in the Australian community.

Further detail relating to this proposal and work can be found in the AOPA Business Case for the Inclusion of Orthotic Health Service in the Medicare CDM program submission. This document was submitted to the Department of Health and Minister for Health in 2014.

Recommendation:

AOPA requests the amendment of the Medicare Chronic Disease Management (CDM) program to include the services provided by Orthotists and enable GP referral in the primary care setting for expert consultations on limb saving and mobility treatment options.

KEY POINT 2:

Support Orthotist/Prosthetist workforce demographic and retention research to allow evidence based policies and planning for the delivery of disability services

Background

Orthotics and prosthetics is a small allied health profession providing vital services to a vulnerable subset of the Australian community. The last available data collection on the workforce was the Australian Bureau of Statistics Census in 2011 which reported 404 people identifying as Orthotist/Prosthetists. AOPA certified practitioners represent more than 70% of the profession nationally.

An Australian Qualification Framework Level 7 qualification (Bachelor Degree) is required for entry into the profession in Australia. The only Bachelor Degree accepted for entry into the profession is a Bachelor in Prosthetics and Orthotics. A generalist health degree or alternative allied health qualification does not allow entry into the occupation. The current minimum tertiary education available in this profession in Australia is a Master in Clinical Prosthetics and Orthotics through La Trobe University, Melbourne. This training program represents the only available program in Australia at this time. Currently the program produces 40-50 graduates per year, representing approximately 12.5% of the entire professional population. There is a significant clinical placement burden which impacts the profession. Further to this, there are recruitment, retention and dispersion issues caused by the only training program being located in Melbourne.

Importance of accurate workforce data

Concern regarding workforce shortages is well documented within the Australian and global health care sector, particularly for allied health [23][24]. Any contraction of services will restrict access to the right health care at the right time, ultimately impacting those who require health care most [24] and leading to suboptimal outcomes [25].

Rising chronic disease rates and expected allied health workforce shortages suggest the Australian Orthotic/Prosthetic workforce is likely to have difficulty meeting future demand. An increasing
prevalence of diabetes and incidence of lower limb amputations below the ankle [26] are two indicators of an imminent increase in demand for orthotic and prosthetic services. Orthotic/Prosthetic workforce shortages have been predicted in the United Kingdom (UK) [27] and the United States of America [28] where a 36% increase in practitioners is reportedly required to meet health care demand [29].

**Orthotist/Prosthetist workforce shortages are predicted for the United States of America, where a 36% increase in practitioners is reportedly required to meet health care demand [28, 29]**

A key barrier to workforce planning is the lack of reliable, consistent and informative workforce data. Comprehensive workforce reports were produced in 2013 by the Australian Institute of Health and Welfare for Australian Health Practitioner Regulation Agency (AHPRA) regulated professions [30]. Health Workforce Australia identified improvement of the geographic distribution of the health workforce as a key strategic area, yet produced relevant data for only one of the non-AHPRA regulated professions [31]. A significant data gap remains for several allied health professions, including Orthotist/Prosthetists.

**Current knowledge of the Australian Orthotist/Prosthetist workforce**

Australia’s national practitioner rate is 1.09 per 100,000 population (Figure 1), which is well below international rates:

- 1.48 practitioners per 100,000 population in the United Kingdom [32],
- 2.4 practitioners per 100,000 population in the United States of America [33], and
- 3.0 practitioners per 100,000 population is the sole published recommended rate for orthotists [34].

Whilst the national rate is concerning when benchmarked against international rates, it is the dispersion which is of greatest concern:

- 5 states and territories have rates well below the national average, which may result in variations in accessibility for patients,
- no state or territory currently meets the internationally recommended rates for optimal service provision, and
- some states have seen a regression in rates due to population growth and practitioner number stability.
AOPA’s research has also highlighted a shifting demographic, primarily age cohorts and gender ratios. Figure 2 shows the following:

- the average age of the female membership remained stable at 32 years from 2007 to 2012
- the average age of the male membership has reduced slightly from 46 to 43 years from 2007 to 2012
- there is a more even spread of males across all age groups, and
- a large cohort of females under 35 years is evident

It appears that the profession’s demographics are shifting to be more in line with the trends seen in other allied health disciplines. This preliminary data raises questions regarding the retention of female practitioners, and therefore concerns regarding the 10-20 year projection for the profession due to the large female cohort. This demographic shift requires further exploration.

Further detail relating to this work can be found in the AOPA National Workforce Snapshot 2007-2012 document. A full suite of state workforce snapshots are also available.

**Implications for patient access**

Western Australia (WA) is an example of a region significantly affected by practitioner rates and dispersion. WA has the lowest ratio of practitioners to population of all Australian states and territories. All practitioners are based in metropolitan Perth or nearby Bunbury. Visiting services to over half a million residents of Western Australia’s regional areas are ad-hoc, intermittent and poorly resourced. Compounding the issue is that these regions have large Indigenous populations with high chronic disease rates and amputation risk, and therefore high demand for orthotic and prosthetic services. All patients outside of Perth are required to travel to Perth for services, sometimes up to 3,000 kilometers, and may be required to stay for a number of weeks for treatment. A careful and evidence based strategy is required to ensure optimal outcomes from investing in services in these regions. To identify factors which influence patient access to services, a clear understanding of workforce, funding and demand is required through robust research.

**Recommendation:**

AOPA requests $100,000 funding to support Orthotist/Prosthetist workforce research including detailed workforce demographics, dispersion and retention rates. This funding will be used to appoint a part time research officer over 2 years to conduct workforce research including detailed workforce demographics and a retrospective analysis of graduate dispersion and retention. A detailed budget can be provided on request. Collaboration with La Trobe University will be sought, including statistical expertise and ethical approval.
REFERENCES


[27] Centre for Workforce Intelligence, "Workforce Risks and Opportunities: Prosthetists and Orthotists," 2012.


