A limb lost every 3 hours: can Australia reduce lower limb amputations in people with diabetes?

Title

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Increased foot problems due to diabetes means a national focus on coordinated foot care is essential

Data from the Australian Institute of Health and Welfare (AIHW) suggest that one Australian loses a lower limb every 3 hours as a direct result of diabetes-related foot disease (DRFD).\(^1\) Further data suggest there has been a 30% increase in diabetes-related amputations in Australia over the past decade, with 8% of diabetes-related deaths being attributable to foot disease.\(^1,2\) These statistics are especially disappointing given the exponential growth in knowledge, research and published guidelines into managing DRFD.\(^3,4\) In order to reduce this significant burden, several complementary measures are therefore urgently required.

To allow for long-term surveillance of DRFD in Australia, it is paramount that data collection is initiated at a national level. The health system does not currently allow for collection of information from both public and private sectors, and ignores the large group of people managed solely in the community. Effective allocation of resources and care co-ordination are likely to be hindered by this lack of data, as are identification of at-risk patient groups and development and evaluation of preventive strategies. Solutions for improving data collection would include creation of specific Medicare item numbers for DRFD and development of web-based data collection forms and databases.

The inclusion of chronic disease management items in the Medicare Benefits Schedule (MBS) is acknowledged as a step forward in the fight against DRFD. Reports suggest that 1.3 million consultations were provided by podiatrists under this program in 2004–2008, accounting for 34% of all consultations.\(^5\) It is important to note, however, that this funding arrangement does not allow for more frequent follow-up for individuals with acute diabetes-related foot complications or needing intensive secondary prevention due to previous ulceration and/or amputation. Recurrence rates for foot ulceration range from 20%–80% annually, with many of these ulcers leading to amputation.\(^6\) Improved access to publicly funded specialised foot care services, and increasing the number of rebates available under the MBS, are seen as cost-effective necessities for people with current or past foot complications. The cost of this would be recouped by preventing future hospitalisations and amputations.

Improved access to appropriately skilled health care providers and multidisciplinary teams is required, and could be achieved if Australian health care policy makers adopt a standardised national model of care for DRFD. This model must sustain a continuum of care between community-based health care and local hospitals. Research supports the resourcing and implementation of well defined treatment pathways provided under a multidisciplinary model of care.\(^7,8\) A standardised national service model would also support a national network of interdisciplinary diabetes-related foot clinics, in turn facilitating the development of a national database to assist with referral pathways, data collection, initiation of quality improvement programs and benchmarking across organisations. Such a model would also allow for accreditation of specialist clinics and staff, which is necessary to ensure adequate and appropriate services.

When geographical distance limits access to a multidisciplinary unit, professional communication and care should be provided using tools such as telehealth. Telehealth increases access to interdisciplinary care and provides support and upskilling for rural health professionals.\(^9,10\) Such technology is necessary to improve service access and to address the four-fold increase in the hospitalisation rate experienced by rural Australians with DRFD compared with that of urban Australians with DRFD.\(^1\)

There is an expectation that health professionals will provide care according to best practice guidelines, but often the health system does not support such efforts. Research supports the use of wound dressings, total contact casting, walking braces, medical-grade footwear and orthotics to prevent and manage diabetes-related foot complications, but funding inequity often prohibits their use.\(^7\) Policy makers must acknowledge essential treatment modalities for wound healing and amputation prevention and subsidise their supply.

Data from Western Australia indicate that Aboriginal and Torres Strait Islander people with diabetes are 38 times more likely to undergo a major leg amputation compared with non-Indigenous Australians with diabetes.\(^10\) Tailored educational resources and training in skills to assess, manage and prevent DRFD in Indigenous Australians must be supported. Health initiatives that “close the gap” on health inequities for Indigenous Australians are essential and must be included in all future strategies to improve DRFD outcomes in Australia.

Australia has not successfully implemented key best practice recommendations for prevention and management of DRFD. The Australian Diabetes Society (ADS) has therefore established the Australian Diabetes Foot Net-
Recommendingations to improve national diabetes-related foot disease care

- National data collection on incidence and outcomes of diabetes-related foot disease (DRFD).
- Improved access to care, through the Medicare Benefits Schedule, for people with diabetes that have a current or past foot complication.
- Standardised national model for interdisciplinary diabetes-related foot care.
- National accreditation of interdisciplinary foot clinics and staff.
- Subsidies for evidence-based treatments for DRFD, including medical-grade footwear and pressure off-loading devices.
- Holistic diabetes care initiatives to “close the gap” on inequities in health outcomes for Aboriginal and Torres Strait Islander peoples.

work (ADFN) to advocate for greater funding of key treatments, provide education and support for health professionals, develop clinical guidelines, and support research into DRFD. The ADFN will advocate for the implementation of best evidence-based care, including recommendations made in the NHMRC guidelines. The ADFN will campaign strongly for improved clinical and educational resources for Aboriginal and Torres Strait Islander peoples. For the status of DRFD in Australia to significantly change, the ADFN recommends adoption of the recommendations in the Box as an essential first step.

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References