Government of Western Australia
Department of Health

Foot Care for People with Diabetes: Western Australia Standards and Clinical Guidelines 2014

Diabetes and Endocrine Health Network

health.wa.gov.au

Suggested citation:

Department of Health, Western Australia. Foot Care for People with Diabetes: Western Australia Standards and Clinical Guidelines 2014. Perth: Health Strategy and Networks, Department of Health, Western Australia; 2014.

Important disclaimer:

All information and content in this Material is provided in good faith by the WA Department of Health, and is based on sources believed to be reliable and accurate at the time of development. The State of Western Australia, the WA Department of Health and their respective officers, employees and agents, do not accept legal liability or responsibility for the Material, or any consequences arising from its use.

Contact information:

For further information contact Health Strategy and Networks, WA Department of Health on (08) 9222 0200 or healthpolicy@health.wa.gov.au.

Introduction

These standards and guidelines are based on evidence from national and international validated, referenced sources. They have been adapted for Western Australia (WA) and have been endorsed by the WA Diabetes and Endocrine Health Network. This follows extensive consultation with partners across the health system, including the Advanced Practicing Podiatrists High Risk Foot Group. They complement the Western Australia Framework for Action on Diabetes and Diabetes Service Standards 2014.

This document does not necessarily reflect the *current* availability and quality of foot care services *throughout* WA; the standards are designed to indicate best practice and to be challenging and aspirational, yet realistically achievable within a ten year timeframe across the State (including in rural and remote areas). Flexibility will be required in their implementation in different areas, to take account of differing circumstances. The standards will guide development of future plans to connect and enable the health system in WA to deliver consistent, sustainable and evidence-based services to improve foot care across the State. In recognition of the continual emergence of new research and evidence, the document will be reviewed and updated over time.

Section one: foot screening/assessment

Foot screening/ assessment	Broad standard	Specific details	Evidence
1	All people diagnosed with Type 1 and 2 diabetes to receive foot care education and self-management advice relative to their level of risk (See 4).		National Health and Medical Research Council (NHMRC) Model of Care (MOC)
2	Until adequately assessed all Aboriginal people with diabetes are considered to be high risk for foot complications and require foot checks at every clinical encounter and active follow up.		NHMRC
3	Foot screening can be performed by any health professional who has received appropriate training in foot screening.	Foot screening has been shown to reduce the incidence of foot complications through early detection and enable proactive management of risk factors. Foot screening includes: • Enquiring about previous foot ulceration and amputation • Visually inspecting the feet for deformity • Assessment of neuropathy with either 10g monofilament or neuropathy disability score • Palpation of foot pulses • Assessment of footwear.	NHMRC MOC

Foot screening/ assessment	Broad standard	Specific details	Evidence
4	All people with diabetes to receive foot screening/assessment and have their foot risk stratified in the following manner: • Low risk - no identified risk factors • Intermediate risk - one identified risk factor • High Risk = two or more identified risk factors and/or previous significant complication history • Active significant foot complication.	Identified risk factors include: • Loss of protective sensation (insensate to 10g monofilament) • Deformity • Peripheral Arterial Disease (PAD). Previous significant history of foot complication includes: • Amputation • Foot ulceration • Severe infection • Chronic/stable Charcot foot. A significant active foot complication includes: • Ulceration below the ankle with or without infection • Severe infection e.g. cellulitis, osteomyelitis or abscess • Recent amputation • Gangrene/necrosis • Active/acute Charcot foot.	NHMRC
5	Podiatry intervention is based on a person with diabetes' identified stratification of risk.	• All people identified as low risk to have an annual foot screening/examination as a minimum requirement • All people identified as Intermediate risk to have 6 month foot assessment/examination as a minimum requirement • All people identified as high risk to have 3 monthly Podiatry review as a minimum requirement • Minimum review of active foot complications are based on the presenting problem. • Variation from these time frames (more or less frequent) can be specified by the podiatrist if deemed clinically necessary.	NHMRC MOC

Foot screening/ assessment	Broad standard	Specific details	Evidence
6	Where possible all Identified risk factors should be managed proactively to prevent ulceration / deterioration.	For example: • Access to appropriate footwear and customised orthotics to accommodate deformity and reduce the risk of ulceration with neuropathy as deemed clinically necessary to reduce or manage significant risk by podiatrist and/or specialist • All people with PAD to receive regular evidenced based vascular assessment to monitor for deterioration and enable timely proactive referral to specialist for intervention.	MOC

Section two: management of active foot complications

Management of active foot complications	Standard	Specific details	Evidence
1	People with acute, or chronic complex Diabetic foot ulceration are best managed by a multidisciplinary foot ulcer team (MDFUT) For patients requiring urgent medical attention clear rapid access referral pathway to MDFUT are to be initiated within 24 hours of presentation.	MDFUT includes podiatrist, wound care nurse, medical governance and access to the following specialists: • Endocrinologist/Diabetologist • Vascular • Infectious Disease/Microbiology • Orthopaedics. Utilisation of expert remote wound care consulting with digital imaging/telehealth to MDFUT members should be made available to those people with diabetic foot ulcers living in remote areas. If a comprehensive MDFUT is not accessible locally and the patient is not acutely unwell implementation of gold standard care of a diabetic foot ulcer can be provided by GP and podiatrist and/or wound care nurse as minimum team members.	NHMRC MOC Australian Diabetes Foot Network (ADFN) National Institute for Health and Care Excellence (NICE)
2	Referral to MDFUT is advised if: • No improvement after 4 weeks of gold standard evidence based practice • Deterioration of the wound with gold standard evidence based practice • Foot ulcer to tendon/bone • Cellulitis /abscess • Absent pulses • Necrosis • Suspected Charcot.	Gold standard practice includes: • Comprehensive history, neuro-vascular and wound assessment, • Medical assessment and management of underlying condition(s)/infection • Offloading and debridement • Promote moisture and bacterial balance with appropriate dressings • Patent centred wound care plan • Education and self-management. A foot ulcer is serious medical condition and needs to be	NHMRC MOC ADFN

Management of active foot complications	Standard	Specific details	Evidence
		managed immediately by health professionals with relevant skills and experience. Rapid referral pathway from rural/remote locations to include access to experts via remote consultation/telehealth.	
3	Immediate referral to Emergency Department if: • Ascending Cellulitis • Systemic symptoms of infection • Limb threatening ischaemia/necrosis.		NHMRC MOC ADFN
4	Clinically infected Diabetic foot ulceration must be treated immediately with systemic antibiotics and cultured by deep tissue swabs taken after debridement or by tissue samples, for identification of microorganisms and antibiotic sensitivities.		ADFN
5	Grading of foot ulcers identifies degree of risk to person and limb. The University of Texas Wound Grading System (UTWGS) is the most preferred system as stated in the NHMRC guidelines and is to be used in WA.	UTWGS grades severity of diabetic foot ulcers dependant on the combination of depth, infection and ischaemia. Range grade A0 to D3. Higher the letter/number combination the: • Greater the complexity • Likely extended healing time • **Higher need for specialist input** • **Combination of medical and surgical** management	NHMRC MOC ADFN

Management of active foot complications	Standard	Specific details	Evidence
		approaches required.	
6	Offloading is required to optimise healing of plantar wounds, If not contraindicated this can be achieved with total contact cast or other offloading device made irremovable.	All people with foot ulceration should be provided with the most appropriate and effective offloading relative to their wound and personal risk factors, for example, falls risk.	NHMRC MOC ADFN
7	Regular sharp debridement should be performed on all non-ischaemic foot wounds by a trained health professional to optimise healing.		NHMRC MOC ADFN
8	A comprehensive wound care plan is tailored to the wound aetiology, patient's specific circumstances and the wounds presenting characteristics and reviewed at least on a fortnightly basis.		NHMRC MOC ADFN
9	All people with diabetes who present or are admitted to a WA Hospital with an active foot complication are to be assessed by and followed up as regularly as deemed appropriate by high risk podiatry service to prevent recurrence and readmission.	Utilisation of expert remote wound care consulting with digital imaging/telehealth to MDFUT members should be made available to those people with diabetic foot ulcers living in remote areas.	MOC

Acknowledgements

We are grateful to members of the WA Head of Podiatry Representative Group who contributed to the development of this document:

Name	Position	Area / Service representing
Cara Westphal	Head of Podiatry	South Metropolitan Health Service (SMHS) – Royal Perth Hospital
Rachele Humbert	Head of Podiatry	North Metropolitan Health Service – Sir Charles Gairdner Hospital
Mark Higham	Coordinator of Podiatry	Bentley Health Service
Laurie Foley	Senior Podiatrist	Fremantle Health Service
Eugenie Nicolandis	Senior Podiatrist	NMHS – Swan Health Service
Elizabeth Reeves	Senior Podiatrist	NMHS – Osborne Park Hospital
Julia Kurowski	Coordinator Moorditj Djena	NMHS – Primary Health Ambulatory Care
Jo Scheepers	Professional Lead – Podiatry	SMHS – Fiona Stanley Hospital
Michael Brown	Senior Podiatrist	SMHS - Rockingham Kwinana
Anne-Marie Carr	Senior Podiatrist	SMHS - Armadale Community health
Brian Wheatley	Senior Podiatrist	SMHS - Mandurah Community Health/Moorditj Djena
Mario Horta	Senior Podiatrist	State Child Development Centre
Max Prager	Senior Podiatrist	Graylands Hospital
Scott Westover	Regional Podiatrist	WACHS – Pilbara
Linda Richardson-Varley	Senior Podiatrist	WACHS – Wheatbelt
Mary Lynas	Senior Podiatrist	WACHS – Mid West
Gary McMasters	Senior Podiatrist	WACHS – South West
John Stoner	Senior Podiatrist	WACHS – Great Southern

References

1. Department of Health WA. High risk foot model of care. Perth: Health Networks Branch, Department of Health, Western Australia; 2010.
2. National Health and Medical Research Council (NHMRC). National evidence-based guideline: prevention, identification and management of foot complications in diabetes. Melbourne: Commonwealth of Australia; 2011.
3. National Institute for Health and Clinical Excellence. Type 2 diabetes foot problems. Prevention and management of foot problems. London: National Institute for Health and Clinical Excellence; 2004.
4. National Institute for Health and Clinical Excellence. Diabetic foot problems. Inpatient management of diabetic foot problems. London: National Institute for Health and Clinical Excellence; 2011.
5. Bergin SM, Gurr JM, Allard BP, Horsley MW, Kamp MC, Lazzarini PA, et al. Australian diabetes foot network: management of diabetes-related foot ulceration - a clinical update. Medical Journal of Australia 2012;197(4):226-9.

This document can be made available in alternative formats on request for a person with a disability.