

AWMA MODULE ACCREDITATION

Module Five: The High Risk Foot (Including the Diabetic Foot)

Introduction - The Australian Wound Management Association Education & Professional Development Sub Committee-(AWMA EPDSC) has developed the minimum components that are required in a set of basic Professional Development modules for skin integrity maintenance and wound management. In addition an aligned framework for competency assessment for each of these modules co exists.

The Committee sought assistance through the European Wound Management Association (EWMA-2004) who had developed a core set of educational requirements for specific modules. In Collaboration with EWMA the AWMA module and competency assessment content documents were produced.

There is provision for some information to be excluded but those seeking endorsement for particular training modules must be able to explain why the content is not being taught (See Table 1).

Code	* Reasons why content not included in course
1	Learners have prior knowledge
2	Content considered irrelevant
3	Lack of time to deliver this content
4	Lack of expertise to deliver this content
5	Other reasons (please specify below)

Table 1

The time taken to deliver the content within each module is up to the presenter/organisation. AWMA is providing a guide only. The content suggestion could in some instances just have one slide on epidemiology and 20 slides on infection –the actual structure of the session/ presentation is up to the presenter/organisation. AWMA has however provided some suggestions as to what could be expected if all the content was covered.

These expectations are listed under the headings –Intellectual knowledge and understanding, and Practical skills and attributes. At this present time AWMA does not endorse education programs.

The module content checklist is a guide only. They are available to ensure presenters/organisations and those advertising courses understand what would be a minimum educational content for basic skin integrity and wound education programs. Likewise with the advanced programs – High Risk Foot; Oncology and Palliative Wounds and Conservative Sharp Wound Debridement.

Health professionals undertaking this advanced module must have completed Module One: Introduction to Wound Management

The AWMA Standards for Wound Management underpin all modules and will be referred to in abbreviated form e.g. Standard 2 (S-2).

Intended learning outcomes of Module Five:

Completion of an AWMA accredited 'High Risk Foot' module provides opportunities for health professionals to develop and demonstrate knowledge, understanding, skills and other attributes in the following areas using evidence based practice:

Intellectual knowledge and understanding of:

1. Medical conditions such as diabetes mellitus, vascular and neurological disorders that put the foot at risk of ulceration and amputation.
2. The pathophysiological processes of diabetes mellitus, vascular and neurological disorders involved in the development of clinical complications the foot.
3. Diagnosis and assessment of the 'at risk foot'.
4. Risk classification of foot complications and amputation in the compromised foot.
5. Assessment tools for wound classification and grading systems of foot ulcer severity.
6. The importance of diabetes management and cardiovascular risk factor modification in the compromised foot.
7. Management strategies for diabetes related foot ulceration including; wound bed preparation, dressing choice, pain management, skin care, pressure off loading, footwear provision & preventative interventions.
8. Evidence based clinical pathways and guidelines for the management and prevention of diabetes related foot complications and associated diseases.
9. The organisation of High Risk Foot services and interprofessional team approach.
10. The treatment of foot ulceration with special therapies such as Hyperbaric Oxygen therapy (HBOT), larval debridement therapy, advanced biotechnologies.
11. Topical and systemic pharmacological interventions for the management of foot ulcerations.

Practical skills and attributes to:

1. Differentiate between ischemia and neuropathy in the diabetic foot.
2. Identify characteristics of the 'at risk foot'.
3. Determine the underlying causes of chronic foot and ankle ulceration and delayed wound healing.
4. Perform appropriate assessments for foot complications in diabetes.
5. Identify and manage clinical signs of infection in the high-risk foot.
6. Determine interventions for foot ulcer management, including pressure redistribution or offloading of the wound.
7. Make effective treatment decisions, initiate further investigations and know when to refer to specialist services.
8. Identify the psychological impact that foot ulceration resulting from diabetes mellitus, neuropathy or peripheral arterial disease has on the individual, their family and society.
8. Identify appropriate high-risk foot services.

MODULE CONTENT CHECKLIST

Indicate inclusion of educational content by placing a tick in column A

Where applicable: reasons for content not included in course insert a code (1-5) in column C

Code	Reasons why content not included in course
1	Learners have prior knowledge
2	Content considered irrelevant
3	Lack of time to deliver this content
4	Lack of expertise to deliver this content
5	Other reasons (please specify below)

Note more than one code can be used.

Inclusion (A)	Educational Content (B)	Reasons why content not included (Insert code 1-5)* (C)
1.0	Overview and Epidemiology *Core Module One plus:	
1.1	<ul style="list-style-type: none"> ▪ Introduction and identification of the impact of the high risk foot ulcers in the broader context 	
1.2	<ul style="list-style-type: none"> ▪ Prevalence and incidence of diabetes and foot complications 	
1.3	<ul style="list-style-type: none"> ▪ The economic costs associated with high risk foot ulcers 	
1.4	<ul style="list-style-type: none"> ▪ Adhere to National and International guidelines (e.g. St Vincent Declaration and others) 	
2.0	Anatomy and Pathophysiology * Core Module One plus:	
2.1	<ul style="list-style-type: none"> ▪ Anatomy of musculoskeletal foot architecture and function in health and disease 	
2.2	<ul style="list-style-type: none"> ▪ Neuro-anatomy of the lower limb, nerve fiber types 	
2.3	<ul style="list-style-type: none"> ▪ Neurological pathological changes: <ul style="list-style-type: none"> • Peripheral neuropathy • Charcot Arthropathy • Other causes 	
2.4	<ul style="list-style-type: none"> ▪ Vascular: micro - macro circulation: <ul style="list-style-type: none"> • Peripheral Arterial Disease (PAD) • Charcot Arthropathy • Other causes 	
2.5	<ul style="list-style-type: none"> ▪ Pathophysiology of associated risk factors e.g. unstable diabetes 	
2.6	<ul style="list-style-type: none"> ▪ Risk factors associated with foot ulceration formation <ul style="list-style-type: none"> • Biomechanics of the foot – pressure profiling, foot shape, gait and walking pattern 	

3.0	Comprehensive Individual Assessment *Core Module One plus:	
3.1	<ul style="list-style-type: none"> ▪ Awareness of cultural issues and beliefs (e.g. Indigenous community) 	
4.0	High Risk Foot and Ulcer Assessment *Core Module One plus:	
4.1	<ul style="list-style-type: none"> ▪ Differential diagnosis: <ul style="list-style-type: none"> • Inter-relationship of ischaemia and neuropathy 	
4.2	<ul style="list-style-type: none"> ▪ Neurological foot assessment: (S 3.2 f) <ul style="list-style-type: none"> • Monofilaments • Biothesiometer vibration perception • Tactile sensation and discrimination • Reflexes 	
4.3	<ul style="list-style-type: none"> ▪ Vascular assessment: (S 3.2 E) <ul style="list-style-type: none"> • Use of Hand Held Doppler • Distinguish between flow patterns (monophasic, biphasic, triphasic) • Performing and interpretation Ankle Brachial Pressure Index (ABPI) & Toe Pressure Index (TPI) • Understanding and interpretation of Transcutaneous oxygen for local tissue perfusion (TcPO₂) if available • Understanding of angiography findings 	
4.4	<ul style="list-style-type: none"> ▪ Assessing Arthropathy: <ul style="list-style-type: none"> • Deformities • Bony prominences • Joint mobility 	
4.5	<ul style="list-style-type: none"> ▪ Assessment of high risk and or pressure areas of the foot 	

4.6	<ul style="list-style-type: none"> ▪ Assessment of the skin and associated appendages: <ul style="list-style-type: none"> • Identification of callus • Nail inspection • Presence of dry skin and skin fissures • Inter-digital maceration • Dermal temperature 	
4.7	<ul style="list-style-type: none"> ▪ Assessment of footwear and hosiery 	
4.8	<ul style="list-style-type: none"> ▪ Use of validated tool for risk classification of developing foot complications 	
4.9	<ul style="list-style-type: none"> ▪ Use of validated tool for foot ulcer staging and grading systems 	
4.10	<ul style="list-style-type: none"> ▪ Investigations: <ul style="list-style-type: none"> • Plain X-Ray • Computerised Tomography Imaging • Magnetic Resonance Scans • Isotope bone scans 	
5.0	Risk Factor Management	
5.1	<ul style="list-style-type: none"> ▪ Glycaemic control 	
5.2	<ul style="list-style-type: none"> ▪ Nutritional assessment: <ul style="list-style-type: none"> • Importance of obesity management to facilitate in the prevention of neuropathy and vasculopathy • Referral to a dietician if required 	
5.3	<ul style="list-style-type: none"> ▪ Management of oedema 	
5.4	<ul style="list-style-type: none"> ▪ Management of peripheral neuropathy 	
5.5	<ul style="list-style-type: none"> ▪ Cardiovascular management e.g. cholesterol, hypertension, smoking cessation 	
5.6	<ul style="list-style-type: none"> ▪ Skin and callus management 	
5.7	<ul style="list-style-type: none"> ▪ Reduction redistribution, and offloading of high pressure areas of the Foot 	

6.0	Prevention of Foot Ulcers	
6.1	<ul style="list-style-type: none"> ▪ Individual and carer education: hygiene, inspection, temperature and trauma avoidance 	
6.2	<ul style="list-style-type: none"> ▪ Skin care such as the use of emollients, protection against moisture imbalance 	
6.3	<ul style="list-style-type: none"> ▪ Use of guidelines and evidence-based practice in foot ulcer prevention 	
7.0	Wound Management * Core Module One plus:	
7.1	<ul style="list-style-type: none"> ▪ Management strategies for high risk foot ulcers including the use of wound management products and adjunct therapies 	
7.2	<ul style="list-style-type: none"> ▪ Mechanical, conservative sharp and surgical debridement 	
7.3	<ul style="list-style-type: none"> ▪ Importance of pain management even in presence of neuropathy 	
7.4	<ul style="list-style-type: none"> ▪ Off loading with open wounds - Various methods e.g. Podiatry felt padding, rigid and air casting 	
7.5	<ul style="list-style-type: none"> ▪ Footwear- appropriateness for the foot type and foot function, shoe shape, modification and fit 	
8.0	Management of Infection * Core Module One plus:	
8.1	<ul style="list-style-type: none"> ▪ Assessment and presentation: <ul style="list-style-type: none"> • Covert (silent) infection • Spreading infection (deep tissue infections) requiring surgical intervention 	
8.2	<ul style="list-style-type: none"> ▪ Use of pharmaceuticals in infection 	
8.3	<ul style="list-style-type: none"> ▪ Referral to the infectious disease team for guidance of antimicrobial therapy and duration 	

9.0	Systemic and Local Pharmacological Management	
9.1	<ul style="list-style-type: none"> ▪ Use of: <ul style="list-style-type: none"> • Appropriate antimicrobial therapy (systemic and topical) • Neuropathic pain agents • Analgesic agents • Anti-pruritics • Ace inhibitors, anti-platelet agents, statins • Emollients and barrier creams 	
10.0	Psychosocial Aspects of Care	
11.0	Rehabilitation Services *Core Module One plus:	
11.1	<ul style="list-style-type: none"> ▪ Structure and management of foot care services 	
11.2	<ul style="list-style-type: none"> ▪ Integrated hospital and community care 	
11.3	<ul style="list-style-type: none"> ▪ Database and recall systems 	
11.4	<ul style="list-style-type: none"> ▪ Follow-up - stratified policy according to risk 	

Based on:

1. Australian Wound Management Association, Standards For Wound Management, 2nd edition. West Leederville WA, Cambridge Publishing, 2010.
2. National Evidence-Based Guideline on Prevention, Identification and Management of Foot Complications in Diabetes (Part of the Guidelines on Management of Type 2 Diabetes) 2011. Melbourne Australia.
3. International Working Group on the Diabetic Foot. *International Consensus and Practical and Specific Guidelines on the management of the diabetic foot* 2007.