EWMA Educational Development Programme

Curriculum Development Project

Education Module:

Prevention and Management of Leg Ulcers

Latest revision: October 2015
ABOUT THE EWMA EDUCATIONAL DEVELOPMENT PROGRAMME

The Programme is designed to assist students and healthcare professionals who work with patients with wounds and related skin conditions and wish to develop and/or increase their knowledge and skills in order to meet patient needs.

Overall, the Programme aims to:

- Provide students and healthcare professionals with the knowledge and skills to equip them to perform their role in the delivery of optimal wound care.
- Provide contemporary, interdisciplinary, product/brand neutral wound management education that is endorsed by EWMA.
- Provide quality standards against which other organisations can evaluate existing wound management programmes.
- Achieve European acceptance by developing an educational framework that is in line with European Commission educational initiatives in order to disseminate best practice in wound care.

ABOUT THE CURRICULUM DEVELOPMENT PROJECT

The Curriculum Development Project is at the heart of the Educational Development Programme. The aim of the Project is to develop a flexible curriculum, consisting of a number of modules.

All modules are based on a standard template but individually focused on a specific aspect of wound management. Each module is developed by a small group consisting of members of the EWMA Education Committee and/or affiliated wound care key specialists. For an updated list of the currently available modules please visit the education sub page at www.ewma.org.

ABOUT THIS MODULE

The Prevention and Management of Leg Ulcers module aims to:

- Broaden participant’s knowledge and understanding of the management of leg ulcers and associated diseases.
- Evaluate strategies to promote effective inter-professional collaborative working for patients with leg ulcers.
MODULE CONTENT

1. Elaborating Body
   European Wound Management Association (EWMA)

2. Date of production of module
   January 2003

3. Latest review date
   October 2015

4. Module intended learning outcomes
   This module provides opportunities for health professionals to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas:

   A. Intellectual Skills – Knowledge and Understanding
   Participants will have knowledge of:
   1. Anatomy and physiology of the lower limb.
   2. Causes and pathophysiology of leg ulceration.
   3. Epidemiology of leg ulceration and its impact on health service provision.
   4. Management strategies for leg ulceration including wound management; pain management; skin care; compression - bandaging / hosiery / intermittent & preventative interventions including surgery.
   5. Evidence-based treatments available for the management of leg ulceration and associated skin conditions.
   6. Organisation of leg ulcer services and interdisciplinary team working.
   7. Health economics related to leg ulcers and treatment of leg ulceration.

   B. Practical Skills – Skills and Attributes:
   Participants will be able to:
   1. Effectively use clinical assessment skills for patients with leg ulceration.
   2. Make effective treatment decisions, initiate further investigations and know when to refer to specialist services.
   3. Safely and effectively apply compression bandages and hosiery.
   5. Identify and manage the psychosocial impact of leg ulceration.
   6. Evaluate the provision of leg ulcer services.
5. Teaching/learning methods & strategies

Acquisition of 4.A & 4.B (see above) is through a combination of lectures, small group workshops and learning in practice throughout the module. There is also the possibility of using e-learning in combination with traditional learning methods. Throughout, the participant is encouraged to undertake independent study to both supplement and consolidate what is being taught and to broaden individual knowledge and understanding of the subject.

6. Assessment methods

Assessment methods will need to vary for each professional group. Understanding will be assessed in a variety of ways i.e. open discussion, formal written exercises, case studies, practice work-books. Throughout, the learner is expected to consolidate the development of practical skills / management skills in the clinical setting.

7. Unit content

A. Overview / epidemiology

Incidence and prevalence data for leg ulcers and associated conditions
Causes of leg ulceration – venous, arterial, mixed, infectious, inflammatory, neoplasm etc.
Evidence base for leg ulcer management - national/international guidelines
Cost effectiveness
The health economic costs associated with leg ulcers and treatment of leg ulceration.

B. Anatomy of lower limb

Vascular arteries, veins, capillaries
Lymphatic system
Skin and associated structures

C. Pathophysiology

Vascular – macro-circulation, DVT, valve incompetence, micro-circulation, arteriosclerosis, vasculitis
Venous hypertension / insufficiency, lipodermatosclerosis, atrophie blanche
Venous disease – White Cell Trapping, Fibrin Cuff theories
Lymphatic disease – congenital, post-traumatic, venous disease, neoplastic disease, obesity etc
Formation of oedema

D. Principles of patient care

Assessment – physical, psychological, social
Identification of patient-centred management objectives
Care planning
Evaluation of outcomes
Use of evidence based practice/clinical guidelines
Referral criteria
Interdisciplinary team working

**E. Assessment**

General assessment process – limb, person
Quality of life
*Differential diagnosis – DVT, red leg*
Vascular assessment - palpation foot pulses, ankle brachial pressure index, segmental pressures etc
Investigations – blood screening, microbiology, biopsy
Skin assessment

**F. Risk factor management**

Identification of risk factors -DVT, phlebitis, oedema, eczema, lipodermatosclerosis - smoking, hypertension, Peripheral Vascular Disease etc
Symptomatic control & management - hypertension, diabetes, obesity

**G. Ulcer Management**

Management of venous disease –compression bandaging / hosiery, intermittent compression
Management of arterial / mixed disease – modified compression, skin care, referral criteria
Vascular management – smoking, hypertension, diet
Management of vasculitic ulcers
Management of other types of ulcer - post cellulitic, neoplasm, trauma, pyoderma gangrenosum etc
Pain management – assessment / control

**H. Wound management for leg ulcers**

Management strategies for leg ulcers including the use of wound management products and adjunct therapies
The use of guidelines and evidence-based practice to treat leg ulcers
Assessment of the wound bed and surrounding skin
Principles of cleansing
Selection of cleansing agents
Debridement and wound bed preparation including surgical debridement, dressings promoting autolytic debridement, use of bio surgery and topical negative pressure therapy
Dressing selection including product availability relative to local circumstances and different healthcare settings
Advanced wound care products/techniques e.g. skin grafts, skin substitutes, growth factors
Pain management to ensure effective assessment and evaluation of outcomes including the use of analgesia

Care of the surrounding skin e.g. varicose eczema, hyperkeratosis, contact dermatitis, avoidance of trauma/skin stripping, maceration, blistering and allergies

I. Management of infection

Assessment / presentation wound infection/cellulitis - clinical signs/symptoms, biofilm, subclinical, local and systemic infection, differential diagnosis of red leg

Methods to identify infecting agents – clinical signs, sensitivity and specificity of culture and swab techniques, biopsy

Radiological and other investigations – Magnetic Resonance Scans

Antibiotic therapy - indications, type and duration of treatment

Use of topical antimicrobials - indications, type and duration of treatment

J. Specialist interventions

Vascular investigations – Duplex Scanning, Photo-plethysmography

Surgical techniques in arterial / venous disease – vein stripping, bypass, ulcer shaving, amputation

Skin patch testing

K. Systemic and local pharmacological management

Use of:
- Steroids
- ACE inhibitors, anti-platlet agents
- Analgesia
- Antibiotics / antimicrobials
- Anti-pruritics
- Emollients and barrier creams

L. Leg ulcer services

Structure and management – care at home, outpatient clinics, outreach services, social models of care for example Leg Clubs

Integrated hospital and community care

Inter-disciplinary, multi-professional team approach, patient involvement in care

Patient follow-up / prevention of reoccurrence

M. Psychosocial aspects of care

Impact of leg ulcers on individual & society e.g. odour and leakage
Factors affecting compliance with treatment including case study examples of barriers to providing effective treatment to individuals

Effective patient education strategies - exercise, weight control, maintenance of compression, skin care, smoking cessation, management of hypertension etc.

8. Unit specific learning resources

Books
Leg Ulcers A problem –Based Learning Approach; Moya Morison, Christine Moffatt, Peter Franks, Mosby 2007
Leg Ulcer Management (Essential Clinical Skills for Nurses) Paperback – 12 Apr 2007 by Christine Moffatt (Author), Ruth Martin (Author), Rachael Smithdale (Author)

Journals
Journal of Wound Care
Phlebology
International Journal of Lower Extremity Wounds
International Wound Journal
Ostomy and Wound Management?
Wounds
Journal of Tissue Viability
Journal of Vascular Surgery

Web links
Cochrane http://www.cochrane.org/index
NICE: https://www.evidence.nhs.uk/Search?q=leg+ulcer+guidelines
Scottish Intercollegiate Guideline Network: http://sign.ac.uk/guidelines/fulltext/120/index.html
Wounds International: http://www.woundsinternational.com/resources/leg-ulcers
Wounds International: http://www.woundsinternational.com/media/other-resources/_/1186/files/3m_14_4_consensus_web.pdf
Wounds UK: http://www.wounds-uk.com/best-practice-statements