EWMA Educational Development Programme

Curriculum Development Project

**Education Module:**

Assessment and management of lymphoedema

First version: May 2018
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 Lymphoedema module aims to:

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

1. **Elaborating Body**

   European Wound Management Association (EWMA)

2. **Date of production of module**

   October 2012, revised May 2018

3. **Latest review date**

   May 2018

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 and understanding of the:

   1. Epidemiology of chronic lymphoedema.
   3. Physiological function of the lymphatic system.
   4. Pathophysiology of lymphoedema development.
   5. Classification of peripheral lymphedema.
   6. Assessment of patients’ condition, diagnosis and differential diagnosis.
   7. Evidence based systemic and local lymphoedema management.
   8. Structure and organisation of rehabilitation services.
   9. Psychosocial impact of lymphoedema on the individual, their carers and the society.

   **B. Practical Skills – Skills and Attributes:**

   Participants will be able to:

   1. Identify patients at lymphoedema risk.
   2. Assess lymphoedema staging
   3. Appropriately assess and document clinical signs of lymphoedema and measurements of oedematous extremities.
   4. Identify and manage clinical signs of infection in lymphoedema patient.
   5. Deduct effective treatment decisions, initiate further investigations and know when to refer to specialist services.
6. Understand the role of compression therapy, manual lymphatic drainage, exercise, skin care and surgery in the treatment of patients with lymphoedema.

7. Monitor and evaluate treatment outcomes.

8. Be able to take into account the quality of life of the patient and the patient’s family.

9. Patient education in self-management

5. Teaching/learning methods & strategies

Acquisition of 4A&B 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 learner is encouraged to undertake independent study both to 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 workbooks. 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 lymphoedema
The difference between primary and secondary lymphoedema
National/international guidelines and targets related to lymphoedema care
Impact on health outcomes and costs related to lymphoedema care and treatment

B. Anatomy / morphology

Anatomy of the lymphatic system (lymphatic organs and vessels)
Normal lymphatic circulation and its function
The role of lymphatic system in the immune surveillance function
The role of skin and associated structures in the lymphatic system

C. Pathophysiology

Changes in the activity of the lymphatic system
Accumulation of tissue fluid, large molecules and blood cells in the interstitial space
Immunological changes
The role of infection in lymphoedema development (filariasis, erysipelas, cellulitis)
The role of radiation and lymphadenectomy in the development of lymphoedema

**D. Classification of peripheral lymphoedema**
Recognition of factors leading to primary (genetic) or secondary lymphoedema (recurrent infections, filariasis, surgery, obesity, radiation)
Recognition of disorders also attributing to fluid/high molecule accumulation (venous insufficiency, lipoedema, cardiac decompensation, hyper/hypo-thyroidosis, diabetic angiopathy, immobilisation, vasculitis, renal insufficiency, AV malformations, etc.)

**E. Assessment**
Patient history, especially the history of swelling (family and individual)
Limb assessment (measurement of circumferences, pitting and non-pitting, Stemmer sign)
Assessment of skin changes (papillomatosis, hyperkeratosis, ulceration, maceration, eczema, elephantiasis nostras verrucosa)
Nutritional status assessment (including the Body Mass Index)
Assessment of infections (erysipelas, cellulitis, tinea infection)
Assessment of arterial circulation
Imaging studies in order to differentiate lymphoedema from other forms of thick limb
Clinical staging of lymphoedema (0, 1, 2, 3)
Laboratory tests: full blood cell count, liver function, urine analysis, albumin, urea, creatinine and C-reactive protein. Blood smear test for filarial if travel history to endemic areas
Skin biopsy if needed (to exclude malignancy)
General assessment of the patient including their general condition, pain/discomfort and Quality of Life (QoL)

**F. Lymphoedema management**
Identification of the patient at risk (e.g. obesity, immobility, family history, cancer therapy, recurrent limb infections)
Combined decongestive therapy:
- compression therapy: multilayer low-stretch bandages, inelastic bandaging, compression garments, intermittent pneumatic compression
- manual lymphatic drainage
- exercise regimen: aerobic, strength and flexibility related to patient`s condition
- skin care and preventative strategies

Weight control and diet
Adequate patient and family education in order to achieve concordance
Evaluation of treatment outcomes
Appropriate referral to lymphoedema specialists
Surgery (debulking and reconstructive approaches)
Management of complications: lymphorrhoea, eczema, ulcers, bacterial and mycotic infections (erysipelas, cellulites, necrotizing fasciitis, tinea pedis)
Contraindications of complex decongestive physiotherapy: acute inflammation, active infection, systemic malignancy, acute deep vein thrombosis, uncompensated congestive heart failure, uncontrolled hypertension
Documentation of patient response to therapy (recommendation every 3 to 6 months)

G. Systemic and local pharmacological management
Antibiotic therapy for infections - indications, type and duration of systemic treatment
Treatment of comorbidities (e.g. hypertension, type II diabetes, cardiac failure, obesity, renal insufficiency, metastatic cancer, AV fistulas/malformations)
Skin care (moisturizers, keratolytics, antifungal creams, corticosteroid creams)
Weight reducing diet
Antiparasitic treatment of filariasis
Pain management

H. Rehabilitation services
The multidisciplinary and multi-professional approach
Provision of lymphoedema services with lymphoedema specialists
Patient follow-up services (for example lymphoedema camps for children)

I. Psychosocial aspects of care
Effective patient and family education including skin care, compression therapy, exercise, weight control, signs warranting medical consultation and coping strategies
Psychosocial support for individuals and their carers
Difficulties in adherence to treatment (how to engage patients in the process of self-management)
J. Practical skills - assessment
General assessment e.g. definition of early clinical signs of lymphoedema (across the life span)
Identifying the patients at risk: knowledge of the causes of lymphoedema and associated risk factors
Early detection of lymphoedema by excluding other causes of swelling
Testing for pitting and non-pitting and Stemmer sign
Measurement of circumferences and volume of oedematous extremities
Documentation and establishing treatment goals
Staging of lymphoedema
Recognising skin changes and early signs of complications e.g. papillomatosis, lymphorrhoea, hyperkeratosis, lymphangiectasis, ulceration, skin maceration, erysipelas, cellulitis, stasis dermatitis, fungal infections
Nutritional assessment
Evaluation of pain and Quality of life (usage of validated questionnaires)

K. Practical skills - management
Weight control and exercise education
Skin care:
- maintenance of skin integrity (dry skin, skin folds)
- careful management of skin problems/complications
- recognizing skin infections and knowledge how to treat them
Ability to perform compression therapy (Or knowledge about who to refer to)
Education of patients to practice simple lymphatic massage, compression bandaging

8. Unit specific learning resources

Papers/reviews:

Consensus documents and guidelines:

Books