



EWMA Educational Development Programme

Curriculum Development Project

Education Module:

Skin Associated Considerations of Wound Care

Latest revision: May 2013



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 Skin Associated Considerations of Wound Care module aims to:

- Broaden participant's knowledge and understanding of skin symptoms around non-healing wounds
- Assist in understanding that skin symptoms can develop around chronic wounds
- Highlight the importance of early detection of skin disorders as early intervention is the key to preventing unnecessary patient suffering, discomfort and worsening of the skin condition
- Enable the participants to identify and practice strategies for the identification and management of the skin symptoms.



MODULE CONTENT

1. Elaborating Body

European Wound Management Association (EWMA)

2. Date of production of module

June 2013

3. Latest review date

N/A

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 the:

1. Epidemiology of wound care related skin disorders which develop around non-healing wounds
2. Anatomy and function of the skin and associated structures
3. Risk factors for breakdown of skin integrity
4. Pathogenesis of skin damage around wounds
5. Pathogenesis of unique skin disorders escorting non-healing wounds
6. Causal relation of skin conditions associated with non healing wounds
7. Assessment of altered skin integrity
8. Maintenance of skin integrity as a part of wound management
9. Prevention of skin damage

B. Practical Skills – Skills and Attributes:

Participants will be able to:

1. Recognise the risk factors predisposing individuals to skin damages
2. Recognise skin damage around wounds (including maceration, satellite ulcers, allergic reactions)
3. Recognise clinical signs of superficial and connective tissue infections
4. Assess and differentiate the pain caused by skin conditions (inflammation, infection)
5. Assess skin disorders, understand and interpret the patients' complaints



6. Demonstrate awareness of appropriate topical and systemic treatments for managing skin conditions
7. Decide on an appropriate skin care intervention

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 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 work-books. Throughout, the learner is expected to consolidate the development of practical skills / management skills in the clinical setting.

7. Unit content

Intellectual Skills

A. Epidemiology

1. Frequency of Skin disorders and consultations related to skin symptoms in General Medicine
2. Frequency of wound care activities related to skin disorders escorting non healing wounds
3. Importance of exact dermatologic diagnosis when treating skin disorders related to patients with non healing wounds
4. Influence of damaged skin around non healing wounds on the healing process
5. Frequency of contact sensitisation in patients with chronic wounds

B. Anatomy, morphology

1. Anatomy of the epidermis and associated cells (keratinocytes, melanocytes, dendritic cells)
2. Role of dendritic cells in regulating immunologic functions
3. Anatomy and function of basement membrane and connective tissue
4. Composition of the dermis (fibrous components, ground substance, cellular components, epidermal appendages, nerves, blood-, and lymphatic vessels)
5. Knowledge about the wide range of functions of the epidermis
6. Protection against injury,
7. Fluid conservation,
8. Thermoregulation,



9. Absorption of ultraviolet radiation,
10. Barrier to pathogenic organisms (bacteria, fungi, viruses),
11. Detection of sensory stimuli
12. Role of Sebaceous and sweat glands for lipid and acidic coat (pH5,0) of the epidermal surface

D. Pathogenesis of the skin damages

Knowledge of the main factors compromising skin integrity:

1. Wound secretion, bacteria, lymphorrhoea causing skin maceration
2. Superficial infections
4. Impaired blood supply
5. Venous and lymphatic insufficiency
6. Irritation by chemical agents, local medications
7. Allergic sensibilisation by local medications and wound care products
8. Chronic inflammation (mediators, cytokines, growth factors)

E. Principles of skin care

Knowledge of the importance of skin care in wound management regarding:

1. Influence of the physiological condition of the epithelial cells on skin integrity
2. Protection of lipid and acidic coat (pH5,0) of the epidermal surface
3. Prevention of skin maceration around the wound
4. Providing physiological blood supply
5. Providing physiological venous-, and lymphatic drainage
6. Recognition of skin symptoms (inflammation, vesicles, erosions, scaling)

F. Assessment and evaluation of of the patient

Assessment of the following symptoms and complaints:

1. Itch (dermatitis, infections, maceration, inflammation)
2. Pain (inflammation, superficial erosions, fissures)
3. Soreness (eruptions such as dermatitis, vesicles, erosions when dried out)
4. Burning (eczema, irritation, erosions)
5. Scaling (dry skin, dermatitis, irritation)
6. Psychological issues associated skin disorders
7. Further complaints such as pain, secretion, night rest, burning sensation, fever, any change around the wound

G. Unique skin disorders escorting ulcers

Knowledge of skin disorders associated with chronic wounds:

1. Atrophie blanche (hyalin vasculitis)
2. Satellite ulcers
3. Papillomatosis
4. Pyoderma
5. Angioma
6. Toxic erythema/dermatitis
7. Angiopathy/arterial obliteration
8. Cellulitis
9. Blister development, pseudoblisters formation (bullosis diabeticorum)
10. Pseudoepitheliomatous proliferation

H. Risk factors

Identification of risk factors for skin disorders associated with chronic wounds:

1. Maceration
2. Infection
3. Inadequate local treatment
4. Inadequate application of wound dressings
5. Lymphoedema, lymphorrhoea
6. Itching, excoriations, superficial erosions
7. Application of potentially sensitising agents such as local antibiotics

I. Prevention

Knowledge of the most important preventive measures, i.e.

1. Appropriate dressings to manage wound exudate
2. Appropriate skin care to protect against skin maceration
3. Avoidance of potentially sensitising agents such as local antibiotics
4. Decongestive physiotherapy
5. Multidisciplinary approach, treatment of co-morbidities and metabolic disorders
6. Patient follow-up services

J. Skin care:

Knowledge of the following measures for skin care:

1. Skin protection with emollients



2. Avoiding of maceration through absorbent dressings
3. Promoting epithelisation by cleaning macerated skin surface
4. Selection of wound cleansing agents
5. Selection of antiseptic agents
6. Testing of the locally applied agents in case of dermatitis

Practical skills

A. Assessment

1. General assessment process e.g. definition of clinical signs of skin disorders around the non-healing wound
2. Interdisciplinary services available for general assessment process e.g. risk factors, co-morbidities, skin diseases
3. Skin assessment e.g. irritative dermatitis, contact allergies, infection
4. Investigations e.g. blood screening, bacterial culture, patch test, biopsy
5. Recognising symptoms signalling life threatening complications e.g. cellulitis, necrotising fasciitis

B. Local skin assessment

1. Assessment of wound bed and surrounding skin
2. Recognise damaged skin, maceration, erythema, oedema, blistering
3. Distinguish cellulitis from dermatitis
4. Recognise changes in exudate volume, odour, erythema, oedema, pain
5. Recognise the presence of atrophy, maceration, satellite ulcers, lymphorrhoea, papillomatosis, angiomas, pseudoepitheliomatous proliferation around the wound
6. Lymphoedema assessment
7. Early identification of the signs of infection

C. Blood supply

Assessment of the local blood supply, venous and lymphatic drainage

D. Nutritional assessment

1. Measurement of Body Mass Index (BMI), and waist circumference
 2. Recognising nutritional deficiencies
 3. Counselling regarding avoiding overweight and maintaining optimal body weight
- E. Pain assessment



1. Assessment of pain: caused by inflammation, erosions, deep ulcers, oedema, scars around the wound, vasculitis, neuropathy, angiopathy

F. Management of skin disorders

1. Appropriate treatment of skin disorders
2. Avoidance of potentially sensitising agents such as local antibiotics
3. Selection of skin cleansing agent
4. Avoidance of risk factor such as maceration
5. Adequate selection and application of wound dressings
6. Systematic treatment of itching and pain
7. Management of lymphoedema
8. Evaluation of outcomes of management

G. Investigations

1. Sampling of wound exudate for bacterial culture
2. Blood screening, leukocytes, CRP
3. Skin biopsy
4. Patch testing for allergic sensitisation
5. Measurement of Oxygen supply to tissues
6. Radiologic examinations (X-ray, MRI) if osteomyelitis is suspected

H. Psychosocial aspects of care

1. Recognising and taking measures to reduce the Psychosocial impact of skin related complaints on the individual, their carers and society including quality of life issues
2. Systematic treatment of itching and pain
3. Discussion of the complaints and concerns with the patients where appropriate
4. Effective patient education strategies

I. Education

1. Education of patient and family, how to prevent and minimise skin symptoms around the wound
2. Education of primary/secondary care teams how to manage the unique skin symptoms around the wound
3. Education of patient/family and carer how to prevent risk factors leading to skin damage

J. Documentation

1. Methods of documentation, wound databases, wound/patient assessment tools, care planning



2. Information of care givers if skin symptoms around the wound are present and diagnosed

8. Unit specific learning resources

Books

Journals

Web links