STANDARD 5: WOUND MANAGEMENT

Wound management is practised according to the best available evidence in order to achieve optimal outcomes for the individual and their wound.

Rationale

Wound management aims to maximise healing potential and outcomes for the individual. Wound management is guided by comprehensive assessment and the implementation of evidence-based interventions designed to meet the goals of care.

Criteria for wound care practitioners

To meet the criteria for the *Wound Management Standard*, the wound care practitioner:

5.1. Interprets the findings from a comprehensive assessment to inform and develop an individualised wound management plan.

Evidence Criteria

5.1.1. Develops a wound management plan consistent with the assessment of the individual and their wound.[1-5]

5.1.2. Develops a wound management plan consistent with the individual's goals of care.[2, 6, 7]

5.2. Prevents and manages the impact of having a wound on the individual's quality of life.

Evidence Criteria

5.2.1. Implements a plan to minimise pain,[1, 2, 8-11] including for example:

- Non-pharmacological interventions (e.g., moist wound healing, psychological interventions, adjunctive treatments etc.)[2, 8, 12-16]
- Use of atraumatic wound dressings, pharmaceutical products and devices.[2, 8, 12, 13, 17-19]
- Topical analgesia (e.g., impregnated wound dressings, anaesthetic creams).[2, 8, 20]
- When non-pharmacological interventions and/or topical analgesia are insufficient to control pain, a systemic analgesia regimen.[2, 8, 13, 19, 21]
- Referral to members of the multidisciplinary team (e.g., chronic pain management team).

5.2.2. Implement a plan to minimise wound-related signs and symptoms, including pruritus, odour and exudate, including for example:[11, 14]

- Environmental interventions (e.g., temperature, odorisers, etc.).[2, 13]
- Judicious selection of skin and wound products.[13, 14]
- Advising the individual on appropriate clothing and laundering.[13]
- Promotion of health seeking behaviours

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5.2.3. Implements strategies to promote the individual's wellbeing and quality of life,[9] including for example:

- Promoting relaxation and stress management.[13]
- Facilitating access to information and resources to promote role maintenance and socialisation.[13]
- Referral to the multidisciplinary team (e.g., psychologist, social worker, counsellor, etc.).[2]

5.3. Implements strategies to optimise the individual's healing capacity.

Evidence criteria

5.3.1. Manages and optimises systemic factors and comorbidities that may impair wound healing.[9, 11, 22-31]

5.3.2. Promotes adequate nutrition and hydration, with consideration to nutritional requirements for optimal health and correction of nutritional deficits.[2, 7, 11, 13, 22-26, 28, 31, 32]

5.3.3 Promotes cessation of smoking.[22, 27, 28, 30, 33]

5.3.4. Encourages individuals to engage in regular mobility, activity and exercise as tolerated.[2, 23]

5.3.5. Ensures that medications that could impair wound healing are reviewed with consideration to benefit versus risk.[11, 22]

5.3.6. Addresses psychosocial factors that may hinder optimal wound healing, including mental health conditions and cognitive impairment.[2, 23, 24]

5.4. Implements strategies to optimise the wound and periwound area for healing.

Evidence criteria

5.4.1. Promotes an optimal wound moisture balance.[2, 12-14, 16, 19, 24, 27, 28, 32, 34-38]

5.4.2. Protects the periwound area and surrounding tissue from moisture and other sources of damage.[2, 9, 12, 13, 16, 23, 28, 34, 35, 37-39]

5.4.3. Protects the wound bed tissue from toxins, pressure, friction, shear and other injury.[2, 12-14, 21, 25-28, 31, 32, 38, 40-43]

5.4.4. Promotes an optimal wound temperature.[2, 14, 35, 44]

5.4.5. Promotes an optimal pH of the wound and periwound area.[44-49]

5.4.6. Removes devitalised or infected tissue from the wound bed using appropriate cleansing and/or debridement methods with consideration to:[2, 7, 9-12, 18, 19, 23, 26, 27, 31, 32, 38, 43, 50]

- Clinical competence and scope of practice.

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- Clinical contraindications to removing eschar.
- Wound assessment outcomes.
- Arterial insufficiency.
- Spreading or systemic infection.
- Uncontrolled comorbidities.
- Access to sterile equipment.
- Preferences and goals of the individual.

5.5. Attends wound hygiene in a manner that is appropriate to the individual, their wound and the clinical context.

Evidence Criteria

5.5.1. Performs a risk assessment before showering or washing approximated incisions, lacerations or chronic wounds.[14, 27, 51, 52]

5.5.2. Demonstrates proficiency when planning and performing wound hygiene.[4]

5.6. Selects a wound dressing aseptic technique that is appropriate to the individual, their wound and the clinical context.

Evidence Criteria

5.6.1. Considers the immune status of the individual when selecting a wound dressing technique.[53, 54]

5.6.2. Considers the size and location of the wound and the extent of visualisation of the wound bed when selecting a wound dressing technique. [54, 55]

5.6.3. Considers the complexity of the procedure including its anticipated duration when selecting a wound dressing technique.[54, 55, 56]

5.6.4. Considers the clinical environment in which the procedure will be performed when selecting a wound dressing technique.[54, 55]

5.7. Performs wound dressing procedures in a manner consistent with best available evidence.

Evidence Criteria

5.7.1. Performs wound dressing procedures that are within own clinical competence and scope of practice.[4, 57]

5.7.2. Demonstrates proficiency when planning and performing a wound dressing procedure.[56]

5.7.3. Implements relevant universal and standard precautions when performing wound care.[55, 56]

5.8. Prevents and manages wound-related infection and cross infection.

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Evidence Criteria

5.8.1. Implements relevant universal and standard precautions when caring for the individual and their wound.[55, 56, 58-60]

5.8.2. Optimises the individual's immune response through management of other health conditions and nutritional deficits.[9, 16]

5.8.3. Reduces the risk of wound bed contamination by:[2, 10, 11, 18, 24, 27, 28, 55, 56, 61]
- Using appropriate wound hygiene strategies.
- Using an appropriate wound dressing aseptic technique.
- Performing wound dressing procedures with appropriate frequency.
- Performing adequate wound cleansing.
- Performing adequate debridement.
- Educating the individual and their family carer regarding the care of wounds.

5.8.4. Initiates appropriate investigations to determine causative organisms in the presence of clinical indicators of local wound infection, biofilm, spreading infection, systemic infection and/or osteomyelitis, such as:[2, 6, 24, 55]
- Pathological investigations (e.g. semi-quantitative swab culture, wound biopsy, peptide nucleic acid fluorescent *in situ* hybridisation [PNA-FISH], light and electron microscopy).
- Radiological investigations (e.g. plain x-ray, magnetic resonance imaging, bone scan) and clinical assessment outcomes in determining causative organisms.

5.8.5. Initiates appropriate management in the presence of clinical indicators of local wound infection or biofilm, such as:[2, 10, 11, 16, 24, 26-28, 31, 32, 55, 61-66]
- Frequent and adequate wound cleansing.
- Frequent and adequate debridement of the wound bed.
- Use of topical antiseptics and/or antimicrobial dressings consistent with local policies and procedures, relevant guidelines and the principles underpinning antimicrobial stewardship.
- Biofilm based care.
- Other appropriate topical therapies.

5.8.6. Initiates appropriate management in the presence of signs and symptoms of spreading infection and/or systemic infection and/or osteomyelitis, such as:[2, 6, 10, 16, 18, 23, 24, 26-28, 32, 55, 59, 61-70]
- Frequent and adequate wound cleansing.
- Frequent and adequate debridement of the wound bed.
- Use of topical antiseptics and/or antimicrobial dressings in combination with targeted systemic antibiotic therapy, consistent with local policies and procedures and the principles underpinning antimicrobial stewardship.
- Biofilm based care.
- Other appropriate topical therapies.
- Referral to members of the multidisciplinary team (e.g. infectious diseases team).

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5.9. Selects and uses products, pharmaceuticals and devices competently and safely.

Evidence Criteria

5.9.1. Selects and uses products, pharmaceuticals, therapies and devices in accordance with:
- Goals of care and clinical needs.[2, 9, 13, 14, 19, 21, 26, 27, 31, 42, 50]
- Current evidence.[63]
- The risk-benefit profile for the individual.[4, 5, 71-73]
- Local policies and procedures (e.g. antimicrobial stewardship program, wound dressing selection guidelines).[6, 55]
- The manufacturers' instructions.[2]
- Indications approved by the Therapeutic Goods Administration.[74]
- Appropriate ethics approval when used as a component of a research protocol.[75]
- Accessibility and cost.[2, 9]
- Preferences of the individual.[39]

5.9.2. Evaluates compatibility and efficacy when using products, pharmaceuticals, therapies and devices in conjunction with one another.[9]

5.9.3. Stores and maintains products, pharmaceuticals and devices in accordance with the manufacturers' instructions.

5.10. Considers adjunctive therapies and advanced innovations for stimulating wound healing.

Evidence Criteria

5.10.1. Evaluates the appropriateness of incorporating adjunctive biophysical technologies used to stimulate wound healing (e.g. negative pressure wound therapy, electrical stimulation, ultrasound and electromagnetic treatment) into the individual's wound management plan.[2, 7, 9, 14, 15, 18, 27, 28, 42, 43, 50, 69, 76, 77]

5.10.2. Evaluates the appropriateness of incorporating advanced innovations used to change the biology of the wound (e.g. skin grafts, biological dressings, growth factors) into the individual's wound management plan.[2, 6, 13-15, 18, 27, 28, 43, 50, 69, 76]

5.10.3. Refers individuals for surgical interventions when appropriate.[2, 18, 26-29, 31, 32, 42, 69]

Criteria for wound service providers

To meet the criteria for the *Wound Management Standard*, a wound service provider:

5.11. Supports and facilitates the delivery of individualised, evidence-based wound management strategies.

Evidence criteria

5.11.1. Supports an organised system of care for individuals with a wound. [2, 26, 31, 69]

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5.11.2. Provides access to a range of regulated health professionals and/or multidisciplinary teams to support the multifactorial needs of individuals with a wound.[2, 26, 31]

5.11.3. Provides systems that promote the implementation of individualised, evidence-based wound management strategies.[2]

5.11.4. Provides access to a range of contemporary products for promoting wound healing.[9]

5.12. Supports and facilitates wound infection prevention and treatment.

Evidence criteria

5.12.1. Initiates a comprehensive and evidence-based infection control program within the wound service.[55]

5.12.2. Monitors key performance indicators related to infection prevention and control.[55, 59, 61, 69, 70, 78, 79]

5.12.3. Establish roles and responsibilities related to infection prevention and control outcomes.[55]

5.12.4. Promotes an organisational culture that strives to prevent and control wound infection.[55, 69, 70]

5.13. Provides an environment conducive to wound healing.

Evidence Criteria

5.13.1. Provides an environment with characteristics that are associated with healing (e.g. temperature, humidity, noise reduction, etc.).[2]

5.13.2. Maximises appropriate storage of wound-related equipment and products within the service.[2]

5.13.3. Maximises privacy of the environment.[80, 81]

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Related resources

Australian Wound Management Association and New Zealand Wound Care Society. (2012). Australia and New Zealand Clinical Practice Guideline for Prevention and Management of Venous Leg Ulcers. Cambridge Media: Osborne Park, WA	EBG
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World Union of Wound Healing Societies. (2016). Florence Congress, Position Document. Local Management in Diabetic Foot Ulcers. Wounds International: London.	P
World Union of Wound Healing Societies. (2018). Consensus Document. Surgical Wound Dehiscence: Improving Prevention and Outcomes. Wounds International: London.	C
World Union of Wound Healing Societies. (2020). Optimising Wound Care Through Patient Engagement., Wounds International: London.	C
Wounds UK. (2019). Best Practice Statement: Ankle Brachial Pressure Index (ABPI) in practice. Wounds UK: London.	C

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Background and Context

Evidence based practice

Development of a wound prevention and management plan is underpinned by the individual's preferences, clinical history, wound and/or risk assessment and the goals of care. Wound prevention and management decisions should ideally be based on scientific evidence that provides objective data indicating the efficacy of the intervention. Maintaining a scientific and evidence-based approach when making clinical decisions regarding wound management and prevention is associated with superior clinical outcomes and more cost-effective care.[82] However, it is important that evidence is not used in isolation. A body of evidence on specific interventions requires interpretation and evaluation by the care team and individual team members to determine its appropriateness to the individual (e.g., co-morbidities, personal preferences), the multidisciplinary team (e.g., skill level) and the local setting (e.g., environment and resources).[82, 83]

Advances in knowledge, technologies and emerging wound therapies are ongoing. The multidisciplinary team should seek out the best evidence on effectiveness and implementation. Systematic reviews and evidence-based clinical practice guidelines are one source of evidence that provide comprehensive and concise guidance. These sources generally compile the best available evidence for interventions and develop recommendations for clinical practice based on the strength of the body of scientific evidence. However, guidelines provide an interpretation of the science and their relevance to the individual should be evaluated by wound care practitioners.

As highlighted in many wound guidelines and research,[2, 16, 84, 85] the current evidence base for many wound prevention and management strategies is limited in quality and/or quantity, and the availability of new evidence is ongoing.[2, 83] Wound care practitioners therefore have an obligation to maintain a contemporary knowledge base and to develop skills in evaluating and translating evidence into relevant clinical practice that is applicable to specific individuals in their care.[85, 86]

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