



WOUND ASSESSMENT

Why carry out a wound assessment?

- To collect information relating to the patient and the wound in order to identify factors which may delay healing
- To plan the management objectives
- To record changes in the wound status
- To evaluate effectiveness of products/interventions
- To communicate with other clinicians
- To improve morale of patient and staff



Assessment Processes

1. Assess the **patient's** health and wellbeing:

- a. General health,
- b. Underlying medical conditions,
- c. Medications,
- d. Allergies,
- e. Nutritional status,
- f. Mobility,
- g. Social factors e.g. alcohol/tobacco abuse, and
- h. Quality of life.



2. Assess the **wound** and document the following:

- a. **Location** of the wound (may indicate aetiology),
- b. **Size**: i.e. length x width x depth, undermining, sinuses (measure in cm),
- c. **Wound bed- tissue type**: i.e. healthy granulation (pink), unhealthy granulation (dark often bleeds on contact), over-granulation, slough (Yellow), necrotic (black, non-viable)
- d. **Wound edge** (inside perimeter rim): rolled, undermined, callus
- e. **Exudate**: quality and amount.
- f. **Odour**: Yes/No.
- g. **Surrounding skin**: colour, maceration, erythema, induration, eczema.
- h. **Infection**: document heat, redness, swelling, pain, if clinical signs of infection send swab for culture and sensitivity.
- i. **Pain**: identify nature and type of pain, use pain assessment tool.
- j. Determine **underlying cause of the wound**: e.g. pressure damage, trauma, venous or arterial disease, post operative wound infection.
- k. Decide on **objectives** of wound management



3. Assess the **environment** where the patient lives/ is being cared for: Provision of resources may be limited e.g. access to equipment and constraints of availability of products will influence the management plan.

The purpose of Follow up Assessments is to monitor wound progress, the frequency of follow up will depend on the patient's condition, severity of the wound and the environment where the patient is being cared for.

Note: Aseptic principles and standard precautions must be applied at all stages of assessment and treatment of wounds.

Tools - the used of standardised tools benefit patient outcomes these include: wound assessment/leg ulcer assessment chart, wound measuring ruler, acetate tracing and photography.

WOUND HEALING PROCESSES

Wound healing is a complex series of events that are interlinked and dependant on one another. Acute wound management usually follow a well defined process described as:

- Coagulation
- Inflammation
- Cell proliferation and matrix repair
- Epithelialisation and remodelling of scar tissue (Dealey 2005)

Chronic wounds however may get 'stuck' in the inflammatory and proliferative phase (Ennis & Menses 2000) which may delay healing.

WOUND HEALING OBJECTIVES

The concept of wound bed preparation using the **TIME** acronym (Schultz et al 2003) allows the clinician to focus systematically on 4 main critical components of non healing and thus establish the objectives of wound treatment. The following is a summary only:

Tissue non-viable or deficient

Where tissue is non-viable or deficient, wound healing is delayed. Main clinical action is to debride the wound bed by removing devitalised tissue (necrosis / slough). Where debridement is an option the following methods may be used: Sharp (by a trained practitioner), Autolytic (enhanced by dressings), Enzymatic, Larval Therapy & Mechanical.

Patients with ischemic wounds on their lower extremities, should not be treated with autolytic debriding agents. THESE WOUND SHOULD BE KEPT DRY and patients referred to the Vascular / Surgical team.

Infection or Inflammation

Host resistance is lowered by poor tissue perfusion, poor nutrition, local oedema and other systemic factors including co-morbidities, medications (eg steroid therapy & immunosuppressive drugs). Main clinical action is to remove infected foci, use of appropriate antimicrobial therapy and antimicrobial dressings.

Moisture imbalance

To optimise wound healing, in the majority of wounds, a moist wound environment is desirable. While moisture encourages the breakdown of fibrin and dead tissue, excess moisture can damage the surrounding skin and lead to further skin breakdown. Wounds that get 'stuck' in the inflammatory phase have increased exudate production and the wound fluid of these wounds may contain high levels of proteases which have an adverse effect on wound healing.

Edge of wound – non advancing or undermining

If wounds fail to epithelialise it is advised to reassess the wound or consider corrective therapies. There are many reasons why the epidermal margins fail to migrate including hypoxia, infection, dessication, dressing trauma, hyperkeratosis and callus at the wound margin (Moffat et al 2004). Undermining or rolling of a wound edge can also influence the ability of the wound to heal. An ulcer with a rolling edge should be considered for a biopsy to out - rule malignancy.

Necrotic Tissue = Black Colour;

Slough Tissue = Yellow Colour

Granulation Tissue = Red Colour;

Epithelialising Tissue = Pink Colour

References:

Dealey C (2005) *The Care of Wound, 3rd Edition, Blackwell Publishing.*

Ennis WJ., Menses P (2000) *Wound healing at a local level: the stunned wound. Ostomy Wound Management 46: 39S – 48S.*

Schultz G., Sibbald G., Falanga V et al (2003) *Wound Bed Preparation: a systematic approach to wound management. Wound Repair & Regeneration 11:1 – 28*

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