

UNDERSTANDING THE BASICS OF WOUND ASSESSMENT

This article looks at the various steps that must be undertaken in order to provide the patient with a thorough and effective wound assessment. The assessment should be holistic and focus on the patient's physical and mental wellbeing.

An assessment is information obtained via observation, questioning, physical examination and clinical investigation to establish a baseline for planning interventions (Collins et al, 2002). In wound care, an accurate assessment is vital to ensure that appropriate and realistic treatment/care is given. There are many systematic components that must be considered when assessing a wound with many formal documentation tools available to aid the process.

Before any wound is examined, it is necessary to obtain an overall medical status and history from the individual to ensure that any underlying factors that may have an impact on the wound or wound healing are addressed. The majority of wound assessment documentation contains baseline physiological questions relating to diabetes, cardiac, arterial or vascular disease and deep vein thrombosis, for example.

The initial assessment is also a perfect opportunity to seek information in relation to any social, psychological and lifestyle factors that may impede the individual's wound healing. It is the author's view that, where possible, the individual with the wound should be

involved in decision making relating to his/her care as a wound is not a 'normal' part of the body and can affect many aspects of daily living and body image. Many patients have disclosed that the wound has become a focal point for them, with it affecting all aspects of their life. Thus, these factors must be explored before the formal assessment of the wound itself takes place.

Pain

Pain is recognised as a factor that reduces mobility and appetite, causes sleep deprivation, acts as a constant reminder of the wound, and delays the healing process (MacLellan, 2000; Teare and Barrett, 2002; Moore and Cowman, 2009). Pain is also linked to emotional distress, loss of self-esteem, social isolation and depression (Flanagan, 2007). With all of these negative factors linked to pain, it needs to be openly discussed to reassure the patient that it is a valid concern.

To aid accurate pain assessment, validated pain tools are available to guide clinical judgement, for example, the pain rating scale created by the British Pain Society (2006).

When considering the need to assess and redress a wound, pain often becomes more severe when a dressing

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change is undertaken, therefore, it is no surprise that some patients fear dressing changes and may be less compliant with treatment. Interestingly, however, it is suggested that practitioners do not always recognise the significance of pain to the patient and it is often omitted from documentation (Trudgian, 2005).

It is unfortunate that patients have been led to believe that their pain is inevitable and untreatable, and has just become part of the wound experience (Flanagan, 2007). If pain assessment is embedded into wound assessment and acted upon appropriately, hopefully, this will no longer be the case for the patient with a wound.

Activities of daily living

Activities of daily living (ADLs) are the routine activities that individuals undertake, including self care — such as feeding, bathing, dressing, grooming — work, homemaking and leisure. The ability or inability to perform ADLs can

be used as a very practical measure of ability/disability in many disorders.

Chronic wounds can limit people's normal functioning and, thus, affect their daily lives. If pain is not addressed as discussed above, for example, they may become more reluctant to mobilise, and a heavily exuding leg and/or malodour can prevent social interaction due to embarrassment or fear of disapproval by others. Body image can also be affected, which can have a negative impact on psychological wellbeing (Hopkins, 2001).

If these issues are not addressed, patients may become less likely to access healthcare and less compliant with treatment. This can create a perpetual cycle for the non-healing wound.

Formal/local wound assessment

Wound history

It is important to establish the history

and cause of any wound. Questions such as 'How long has the wound has been present and what interventions have been put in place?' need to be asked, along with discussing factors that may have contributed to the development of the wound, such as underlying co-morbidities, trauma, seating etc. If the underlying causes of a wound are not addressed, it will not be appropriately managed and wound healing can be delayed or can become static (non-healing).

The type of wound can also be established at this point, with the two main wound types being chronic and acute. Chronic wounds are long-standing with longer/delayed healing times, such as leg ulceration and pressure ulcers. Acute wounds are more traumatic in nature and tend to heal at a much quicker rate.

The wound site

The position of the wound will influence

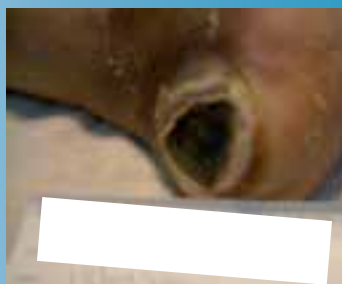


Figure 1. Necrotic tissue.



Figure 2. Granulating tissue.



Figure 3. Epithelial tissue.



Figure 4. Infected tissue.

not only the choice of dressing, but also what equipment may be needed and how rehabilitation should be approached. A heel wound will not only require a very different dressing compared with an abdomen, but will also need pressure-relieving footwear if the patient is to be rehabilitated. This will aid wound healing and prevent further damage at the wound site.

The practitioner must also have a good knowledge of the differences in the anatomical structure. For example, there may be underlying tendon that could be mistaken for slough and inappropriately treated, thus causing more damage or exposed bowel in the abdomen that could be mistakenly treated with topical negative pressure causing serious trauma to the patient.

During the assessment of the wound site, many practitioners use a body map tool to document the exact position of the wound/s. Other visual aids, such as photography and tracing of the wound, are also commonly used tools. The wound's dimensions are also measured. Any tunnelling or undermining is also explored by using a probe under the margins of the wound. All of these measurements will identify if the wound is increasing or decreasing in size and aid decision making in treatment.

Wound margins and surrounding skin

A wound margin tends to change in appearance as the wound progresses or deteriorates. It is important to recognise and track these differences in appearance to aid decision making. For example, redness at the margins may indicate infection and will require changes in dressing choice. Equally, the periwound skin should be assessed as it can become macerated.

Maceration results from excessive moisture in the skin that creates waterlogging and leads to excoriation, which is the stripping of the upper layers of the skin. To prevent this from

occurring, the type and level of exudate should be assessed.

Wound exudate is a natural part of wound healing and can change in appearance and volume throughout the process. The consistency of exudate can range from no odour to offensive smell and from serous to purulent (Fletcher, 2003) — serous exudate is a clear amber liquid while purulent exudate is more opaque in appearance. The World Union of Wound Healing Societies [WUWHS] (2007) suggest four categories for assessment when documenting exudate: colour, consistency, odour and amount.

It is important for the practitioner to be able to recognise these factors and act accordingly to ensure the optimum wound bed environment for healing. The most appropriate dressing, which promotes moist wound healing while removing excess exudate to prevent maceration, should be sought at all times (Eagle, 2009).

Infection

The signs of infection are:

- ▶▶ Swelling
- ▶▶ Heat on touching the surrounding skin
- ▶▶ Redness at the wound margins or surrounding skin
- ▶▶ Exudate that has become higher in volume with an offensive odour.

The patient may also feel more pain from the wound site and be generally unwell physically (Cutting and Harding, 1994). In some wounds, however, it may be a more subtle infection that can only be recognised by delayed wound healing, changes in size or shape of the wound and/or deterioration of the site. This is why accurate initial and ongoing assessment of the wound is vital.

Wound stage/tissue type

The assessment of the wound bed requires the recognition of the different types of tissue that can be present in the wound. The main tissue types are necrotic, slough, granulation and epithelial, with most wounds containing

a variety of tissue types at any one time (see *Figures 1–8*).

Necrotic tissue

This presents as a black or brown covering of dead tissue over the wound bed. In many cases, this tissue is soft initially, but becomes harder when the tissue dehydrates (Eagle, 2009). Necrotic tissue delays healing and can act as a medium for bacteria to develop. The non-viable tissue should be removed as it will impair wound healing and should be removed with an appropriate debriding method (Ousey and Cook, 2011). This can range from a dressing that encourages debridement to the use of a scalpel or under anaesthetic.

Slough

Sloughy tissue is generally yellow in colour and can be dehydrated or hydrated (Tong, 1999; Dowsett and Newton, 2005). The dehydrated tissue is adhered to the wound bed, while the hydrated is wet, presenting as soft stringy/strand-like tissue. Slough, too, is non-viable tissue and must be removed to aid wound healing. Again, slough can be removed by the correct choice of dressing.

Granulation Tissue

Granulation tissue is visibly rolling/bumpy and 'beefy' red in colour. It is not prone to bleeding and is generally not painful (Eagle, 2009). This tissue type requires a dressing that protects the area, while discouraging hyper granulation. Hypergranulation is an overgrowth of granulation tissue that continues to develop above the level of the wound to the local skin. This type of tissue slows wound healing and prevents progression on to the next stage of healing.

Epithelial tissue

Epithelial tissue migrates from the wound margins across the wound bed, covering the granulation tissue. It is flush with the surrounding skin and it tends to be a lighter pink colour, having been described as visually similar to the skin on the tongue. Epithelial tissue requires a protective dressing as it is fragile.



Figure 5. Sloughy tissue.



Figure 6. Sloughy tissue.



Figure 7. Necrotic tissue.



Figure 8. Epithelial tissue.

Documentation

Robust documentation should contain psychosocial and physiological components to ensure all aspects of a patient's life are addressed in relation to the wound healing process. All observations, treatments, interventions and evaluations must be accurately documented to ensure a clear evidence of care and intervention (Ousey and Cook, 2012). If a clinician has not documented an intervention, he or she has no proof that it was undertaken.

Formal wound assessment tools are useful to ensure that all relevant areas of wound care assessment are considered and acted upon. These are often created within the Trust setting and based on recognised tools, such as the TIME wound assessment tool (Shultz et al, 2003). TIME is an acronym for tissue, infection, moisture and edge, and the tool was created by wound care experts to act as a guide for wound assessment and management. These tools can be used in conjunction with the practitioner's clinical judgement.

Conclusion

Wound assessment is vital in ensuring quality patient care. The assessment should be holistic and focus on both the patients' physical and mental wellbeing. A wound is not 'normal' and interventions must ensure that each individual patient with a wound is examined in a sensitive and professional manner. Every patient with a wound should have the right to expect good quality care and, therefore, substandard assessment should not be acceptable. A thorough and accurate assessment can only optimise wound progression and healing, which, in turn, will enhance the quality of life for the patient with a wound. WE

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