

Nurses need to assess the patient holistically when devising an effective treatment plan. Assessment tools help with accurate monitoring of the wound's progress

PART 2 OF 6: WOUND MANAGEMENT

The principles of holistic wound assessment

Learning points...

- › **Assessment should be holistic, not focused on the wound only**
- › **Factors such as age, environment and lifestyle affect healing**
- › **The wound state will change, so assessment must be ongoing**

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This article is the second in a series designed to enhance nurses' knowledge of wound management. It highlights the importance of assessing patients holistically, and provides an overview of the key factors that should be considered when assessing a wound. A well-designed template enables nurses to carry out a comprehensive assessment that ensures accurate documentation to monitor wound healing.

Whether acute or chronic, wounds are the result of some kind of trauma, infection or disease; when assessing them it is important to see wounds in relation to the patient. When conducting a wound assessment, nurses should assess the patient systematically and holistically, rather than focusing only on the wound (Brown and Flanagan, 2013; Eagle, 2009). Apart from the patient's medical history, there are other factors that affect the wound and its ability to heal. Taking time to assess these will help ensure all the information needed to formulate a treatment plan is gathered. Table 1 outlines patient factors that can interfere with the healing process.

Wound assessment tools

There are several wound assessment tools that will help nurses to assess a wound and develop a care plan in a concise, systematic

way (Brown and Flanagan, 2013). Examples include:

- › TIME, developed by Smith+Nephew (Bit.ly/SandNTIME);
- › National Wound Assessment Tool (Fletcher, 2010);
- › Applied Wound Management (Gray et al, 2006).

The content of these are all very similar in that they use prompts to document wound characteristics, as itemised in Table 2. Local tools are also available.

Practice point

One of the key priorities when assessing a patient with a wound is pain. Many patients with wounds experience pain, which must be assessed and managed appropriately before focusing on the wound itself. Part 3 of this series looks at wound pain and management in more detail.

Developing a treatment plan

After completing the wound assessment, the next step is to develop a treatment plan based on the findings. Asking the following questions can help to formulate the treatment plan:

- › At what stage in the healing process is this wound? This will help with choosing the most appropriate dressing or treatment.
- › What do I want this wound to do next? This will help prioritise the most immediate short-term treatment aim.
- › How can I achieve this objective? Consider the aetiology of the wound. For example, if it is a pressure ulcer, it will need pressure relief; if it is a venous leg ulcer, compression therapy will

5 key points

1 Assessment should include observing the whole patient, not just the wound

2 Wound assessment forms are useful tools for accurately documenting the condition of a wound

3 Assessing the wound bed enables nurses to plan treatment options

4 A wound should be measured at least weekly – or more frequently if the appearance of the wound changes – so its progress can be monitored

5 The underlying cause of the wound informs the treatment plan

TABLE 1. PATIENT FACTORS THAT MAY AFFECT WOUND HEALING

Factor	Reason
Underlying disease processes, such as anaemia, cardiovascular disease, diabetes, rheumatoid arthritis or auto-immune diseases, cancer	<ul style="list-style-type: none"> ● Poor blood supply to wound, reduced oxygen levels, increased risk of infection due to hyperglycaemia, poor mobility (Martin, 2013; Eagle, 2009); may interfere with cell formation (Martin, 2013)
Infection	<ul style="list-style-type: none"> ● Prolongs the inflammatory phase of healing and leads to reduction of oxygen and nutrients needed (Thomson, 2011; Wolcott et al, 2010)
Age	<ul style="list-style-type: none"> ● Skin is thinner and drier, and cell turnover is slower (Alam and Harvey, 2010); the immune response deteriorates with age (Ranzer and DiPietro, 2010)
Nutrition, malnutrition and obesity	<ul style="list-style-type: none"> ● Inadequate levels of protein and essential vitamins may result in poor tissue strength and risk of infection (Stechmiller, 2010) ● Patients who are obese at increased risk of infection due to lower uptake of antibiotics in fatty tissue (Momeni et al, 2009)
Lifestyle: tobacco use, alcohol intake	<ul style="list-style-type: none"> ● There is a higher risk of delayed healing and infection in smokers due to reduced oxygen levels in the tissues (McMaster et al, 2008) ● Chronic excessive alcohol intake is associated with a poor inflammatory response and decreased cell formation (Greiffenstein and Molina, 2008)
Medication: steroids, NSAIDs, chemotherapy	<ul style="list-style-type: none"> ● Long-term use of systemic corticosteroids and NSAIDs, such as brufen, will reduce the effectiveness of the inflammatory response (Franz et al, 2007) ● Chemotherapy slows down the rate of cell production (Waldron and Zimmerman-Pope, 2003)
Pain	<ul style="list-style-type: none"> ● Untreated pain is associated with delayed healing due to increased stress levels (McGuire et al, 2006)
Psychological	<ul style="list-style-type: none"> ● Stress and anxiety can have a negative effect on healing (Solowiej et al 2009; McGuire et al, 2006)
Care environment and social support	<ul style="list-style-type: none"> ● Lack of social support has been linked to depression and stress, which can delay wound healing (Keeling et al, 1997; Franks et al, 1995)
Previous treatments	<ul style="list-style-type: none"> ● This will identify any allergies to products, any previous investigations, patient preference and adherence issues (Naylor, 2002)

NSAID = non-steroidal anti-inflammatory drug

treat the underlying cause (Greatrex-White and Moxey, 2013).

Changes in the wound bed

As a wound heals its appearance will change and it is important to be able to determine normal progression that shows the wound is healing nicely and there is no infection. The phase of healing and/or the presence of infection determines subsequent treatment. The wound healing process is discussed in part 1 of this series (page 12).

Debridement

If the initial treatment aim was to debride slough or necrotic tissue, once this has occurred, the wound will initially appear larger; this should be explained to the patient, who may need reassurance that it is not getting worse.

Wound infection

Wound infection results in delayed healing, can be difficult to treat and may cause

distress to the patient (Edwards-Jones and Flanagan, 2013). Signs of infection are different in chronic and acute wounds (Box 1). A change or increase in pain together with two other signs is highly indicative of wound infection (World Union of Wound Healing Societies, 2008).

The infection in Fig 1 is signalled by localised swelling and the red colour of the

skin. The skin would probably feel hot to the touch and very painful to the patient. Infections are discussed in greater detail in part 6 of this series.

Ongoing assessment

Assessment should not be a one-off process as the condition of the wound will constantly change. To establish that the

FIG 1. AN INFECTED ARTERIAL ULCER



TABLE 2. WOUND ASSESSMENT PROMPTS

Wound characteristic	Prompt/rationale for assessment
Duration	Indicates wound type – acute/chronic; >4 weeks may indicate delayed healing (Schultz et al, 2003)
Location	Cause of wound – pressure ulcer, venous leg ulcer; will influence dressing choice
Size, depth and shape	Selection of appropriate dressing size; will enable monitoring of healing
Tissue type	Assessment of healing phase, treatment plans, choice of dressing products; if several tissue types, document using percentage of the surface of the wound bed
Amount and type of exudate	May indicate infection, evidence of debridement, bleeding, dressing choice
Surrounding skin	Maceration/excoriation indicates poor fluid management in wound care products
Wound edges	Will indicate whether treatment is effective and healing is taking place

treatment is effective, nurses should assess the wound frequently. A healing wound has been defined as “a reduction of 20-40% in wound area after 2-4 weeks of treatment (Kantor and Margolis, 2000); it is therefore recommended that wounds are re-measured and reviewed weekly or at each dressing change according to the wound type and care setting.

Referral to specialist services should be considered if, after re-assessment, there is no evidence of healing after four weeks.

Conclusion

Accurate and regular wound assessment is necessary to ensure the correct treatment can be carried out as soon as possible. Using a wound assessment form can ensure all relevant information is collected and recorded accurately; this information forms part of the patient’s documentation. Keeping comprehensive records also ensures good communication between healthcare providers and enables the

wound to be monitored for healing or for the development of complications.

The next article in this series discusses the assessment and management of wound pain. **NT**

- To complete our wound assessment quiz go to nursingtimes.net/woundquiz

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BOX 1. SIGNS OF INFECTION

Acute wounds (surgical/trauma/burns)

- New or increasing pain
- Erythema
- Local warmth
- Swelling
- Pus
- Raised temperature (may be 7-10 days post-surgery)
- Abscess formation
- Abnormal odour
- Delayed healing

Chronic wounds (diabetic foot/leg ulcers/pressure ulcers)

- New, increasing or altered pain
- Delayed healing
- Oedema to wound edges
- Granulation tissue bleeds easily
- Increased exudate/purulent discharge
- Discoloured wound bed; abnormal or change in odour
- Pocketing
- Bridging
- Stalled healing

Source: Adapted from World Union of Wound Healing Societies (2008)

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OTHER ARTICLES IN THIS SERIES

- Part 1: The wound healing process (page 12)
- Part 3: Assessing and treating wound pain (18 November)
- Part 4: Documentation, assessment and wound measurement (25 November)
- Part 5: Selecting the most appropriate wound dressings (2 December)
- Part 6: Wound complications and how to deal with them (16 December)