Development of a new wound assessment form

Wound assessment is a routine component of caring for patients with any type of wound. To date, there is little agreement about how assessment is carried out and recorded and several published audits have identified that in many instances it is done inconsistently. A project group met to develop and agree a new wound assessment tool which, it is suggested, may form the basis for agreeing a minimum dataset. The layout of the form is specifically designed to facilitate ease of use in combination with digital pen technology, making it quick and simple to both input and audit data.

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KEY WORDS
Wound assessment
Audit
National benchmark
Best Practice

Wounds are a major source of morbidity to patients and a major cost to hospitals and community healthcare providers (Posnett et al, 2009). As the UK population ages, the number of patients with both acute and chronic wounds increases, with costs to the NHS estimated to be in the range of £2.3–£3.1 billion (at 2005/2006) for chronic wounds alone (Posnett and Franks, 2007). In addition, the complications associated with wounds place an additional burden on resources. Surgical site infections (SSIs) (which account for up to 20% of hospital-acquired infections [HAIs], National Institute for Health and Clinical Excellence [NICE], 2008) can have a significant impact on resources. Surgical site infections may range from spontaneously limited wound discharge within 7–10 days of an operation, to a life-threatening postoperative complication. It is reported that over one-third of postoperative deaths are related to SSIs (NICE, 2008). Other clinical outcomes of SSIs include poor scars that are cosmetically unacceptable, such as those that are spreading, hypertrophic or keloid, persistent pain and itching, restriction of movement, particularly when over joints, and a significant impact on emotional wellbeing (NICE, 2008). Surgical site infections are estimated to incur additional costs of between £814 and £6,626 per patient (NICE, 2008), and at least double the length of hospital stay (Health Protection Agency [HPA], 2009), depending on the type of surgery and severity of the infection.

Every patient with a wound has a right to expect a good minimum standard of care, regardless of the cause of their wound or where that care is delivered. When a patient with a wound is managed inappropriately,

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BOX 1

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they can suffer from failure to heal, resulting in the wound being present longer than is necessary and an increased risk of complications. Posnett and Franks (2008) stated that a high proportion of chronic wounds remain unhealed for long periods and for almost certainly longer than necessary. Such ineffective management can result not only in prolonged patient suffering, but also increased costs to healthcare organisations.

In the Best Practice Statement Optimising Wound Care (Harding et al, 2008), the authors suggest that in order to provide a good standard of care, a structured approach is required to assessment, diagnosis and management of patients with wounds, and that assessment is fundamental to planning care. The Best Practice Statement maintains that, 'A thorough patient assessment should be carried out by a skilled and competent practitioner adhering to local and national guidelines, when appropriate, at all levels in the service'. However, assessment (and recording of the assessment) is an area of practice which is often carried out poorly or sporadically (Dowsett, 2009). Dowsett (2009) in a study of community nurses' knowledge and practice, identified that at baseline only 42% of patients had a wound assessment form completed, which is consistent with audit findings elsewhere (Ashton and Price, 2006; McIntosh and Ousey, 2008).

Although most clinicians would suggest that they do perform an assessment, this is frequently not evident from their documentation. Previously, an audit of 83 sets of leg ulcer documentation identified that the use of a specific assessment chart significantly increased the likelihood of appropriate data being collected and recorded, and where no chart was used, information was difficult to find and often omitted (Fletcher, 2001). Although in almost half of the notes audited there was inadequate information, it would appear from the auditors' reports that the patients were generally receiving appropriate care, however, this is a subjective view and would be difficult to substantiate at a later point in time. In Lord Darzi's report, the *Next Stage Review* (Department of Health [DH], 2008), he firmly sets quality at the heart of the NHS, stating that we need to be clear about what high quality care looks like, and that in order to improve we need to be able to measure and understand exactly what we do. Furthermore, this lack of recording information in a systematic way makes it difficult to maintain continuity of care, particularly in the community setting where many different practitioners may be involved in the care of the same patient (Dowsett, 2009).

Despite recommendations for formalised wound assessment (Harding et al, 2008), there are no

BOX 2

List of descriptors included in the forms

- Name (These would be the basic details on an addressograph label)
- Age/DOB
- GP/consultant
- Address/ward/department
- Date of assessment
- Signature of assessor

Type of wound

History of wound

Location of wounds
May give actual locations or include a body map/diagram

Measurements

Tissue description
Usually with some indication of the % attributed to each type

Symptom description
Pain
Exudate
Odour

Surrounding skin

Specific risk assessments,
E.g. ankle brachial pressure index (ABPI), pressure ulcer risk and grade

Factors that may delay healing

Referrals
May also include a section on treatments: these may be coded especially if there is a local formulary — so a limited number of products — or may be open space for free text
Objective of care
Cleansing solution
Primary dressing
Secondary dressing
Padding
Bandage/tape
Frequency of dressing change
Re-assessment date

BOX 3

Symptom descriptions

Pain could use a range of pain rating systems
- Intensity
- Numerical rating scale, e.g 0–5 or 1–10
- Visual rating scale, e.g. smiling faces
- Verbal rating scale, e.g. none, mild, moderate severe

Nature
- A range of descriptor words, e.g. sharp, stabbing, dull or a blank space to record the patient's description

Frequency
- Constant
- Procedural
- Incident
- Intermittent

Exudate
Volume; a variety of descriptors:
- None, scant, moderate, high or none, low, moderate high very high
- Dry/none , slight (weekly dressing change), moderate (2/3 weekly dressing change), copious (daily or more changes) +, ++, +++
- May also ask: is the level increasing/decreasing/static

Colour
- Serous, serous sanguinous, sanguinous, pus
- Clear, blood-stained, pus
- Yellow, green, red, cream
- Clear/amber, cloudy/milky or creamy, pink or red, green, yellow or brown, grey or blue (European Wound Management Association [EWMA], 2007)

Viscosity
- Thick, stringy, thin/runny

Odour
- +, ++, ++
- Baker and Haig descriptors, e.g. not evident at arm's length, similar to TELER

recommendations for what should be included within such a form. Furthermore, there is no agreement on how to describe the indicators used within the forms. Given the current drivers to improve quality of care, measure standardised outcomes and the message from Darzi to 'get the basics right every time', which must include fundamentals such as wound assessment, this is immensely problematic (DH, 2008).

Development of the standardised form

As part of a project to develop a standardised wound assessment form (*Box 1* notes the members of the project team) for use with digital pen technology (Vowden, 2009), a review was carried out of 33 assessment forms (17 generic and 16 leg ulcer forms). It was apparent that most areas collected similar data but the way this was done varied considerably. Some forms appeared to strive for simplicity and to be on one side of A4, collecting only minimal information, for example, the descriptor for pain would simply say 'yes/no', while others collected much more comprehensive data with, for example, information on the intensity, nature, frequency and duration of pain.

The list of descriptors included in the forms can be seen in *Box 2*, with an example of how the descriptors may be expanded within the various forms in *Box 3*.

The assessment charts were reviewed by the author who compiled a spreadsheet of common terms and the frequency with which they occurred. Following this review, the project group met to attempt to determine key factors which should be included in a wound assessment form. There was considerable discussion around every individual factor and reference was made throughout to key documents, such as the World Union of Wound Healing Societies (WUWHS) document on wound exudate (WUWHS, 2007) (*Box 4* lists the other documents that were referred to). Where possible, existing descriptors were used, although in some instances these provoked considerable discussion. An example of this would be the descriptors proposed for wound moisture levels, i.e. dry, moist, wet, saturated and leaking. While these have clearly been agreed by the WUWHS expert panel, there was considerable debate about the first three (dry, moist, wet) relating to the wound bed condition, and the last two, saturated and leaking, appearing to relate to an assessment of the dressing condition. Although this may seem to be purely semantics, the project group were keen to ensure that there was minimal possibility for misinterpretation or misunderstanding.

Once the key criteria and appropriate descriptors had been agreed by the project group, consideration was given to the presentation of the information. As the form is primarily designed to be used

BOX 4

Key documents consulted

- EWMA (2006) Position Document. *Management of wound infection*
- EWMA (2005) Position Document. *Identifying criteria for wound infection*
- EWMA (2002) Position Document. *Pain at wound dressing changes*
- WUWHS (2008) Principles of best practice. Wound infection in clinical practice: An international consensus
- WUWHS (2007) Principles of best practice. Wound exudate and the role of dressings
- WUWHS (2004) Principles of best practice. Minimising pain at dressing related procedures. A consensus document

with digital pen technology, tick boxes were preferable as they are quicker for staff completing the form. The ordering of the information had to be logical, for example, descriptors indicating progress or deterioration.

The first two pages of the assessment form are composed of primarily demographic data which would only be captured on one occasion, and a body map — a feature which all of the project team felt should be included as it enables a quick visual location of the wound and easy numerical identification if more than one wound is present. The following three pages cover standard wound assessment data (i.e. details

National Wound Assessment Form

Wound Details

Date of assessment	Date of assessment	Date of assessment	Date of assessment
D D M M Y Y Y Y	D D M M Y Y Y Y	D D M M Y Y Y Y	D D M M Y Y Y Y
Wound Number	**Wound Number**	**Wound Number**	**Wound Number**
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10
Has wound been traced?	**Has wound been traced?**	**Has wound been traced?**	**Has wound been traced?**
Yes No	Yes No	Yes No	Yes No
If yes:	If yes:	If yes:	If yes:
Max length mm	Max length mm	Max length mm	Max length mm
Max width mm	Max width mm	Max width mm	Max width mm
Type of wound	**Type of wound**	**Type of wound**	**Type of wound**
Pressure ulcer 1 2 3 4	Pressure ulcer 1 2 3 4	Pressure ulcer 1 2 3 4	Pressure ulcer 1 2 3 4
Leg ulcer	Leg ulcer	Leg ulcer	Leg ulcer
Fungating lesion	Fungating lesion	Fungating lesion	Fungating lesion
Diabetic foot ulcer	Diabetic foot ulcer	Diabetic foot ulcer	Diabetic foot ulcer
Surgical wound	Surgical wound	Surgical wound	Surgical wound
Traumatic wound	Traumatic wound	Traumatic wound	Traumatic wound
Burn / Scald	Burn / Scald	Burn / Scald	Burn / Scald
Cellulitis (Weeping)	Cellulitis (Weeping)	Cellulitis (Weeping)	Cellulitis (Weeping)
Other (specify below)	Other (specify below)	Other (specify below)	Other (specify below)
Other/Comments	Other/Comments	Other/Comments	Other/Comments

Figure 1. National Wound Assessent form.

Wound Details

Tissue Type (% of each type of tissue in wound)				
Necrotic (black/brown)				
Sloughy (cream/yellow)				
Granulating (red)				
Epithelialising (pink)				
Infection clinical signs				
Present	Yes / No	Yes / No	Yes / No	Yes / No
If yes, is it:	Local / Systemic / Both	Local / Systemic / Both	Local / Systemic / Both	Local / Systemic / Both
Indicators of local infection				
Cellulitis				
Abscess/pus				
Increased pain				
Increased exudate				
Malodour				
Delayed healing / deterioration				
Friable granulation tissue/bleeds easily				
Pocketing at wound base				
Date swab sent	D D M M Y Y Y Y	D D M M Y Y Y Y	D D M M Y Y Y Y	D D M M Y Y Y Y
Swab results				
MRSA				
Pseudomonas				
Haemolytic strep A				
Anaerobes				
Staph. aureus				
Wound moisture levels				
Dry				
Moist				
Wet				
Saturated				
Leaking				

Figure 2. National Wound Assessent form.

Figure 3. National Wound Assessent form.

that occurred most commonly in the review) and allow for four assessments (*Figures 1, 2* and *3*). Categories include:

- Date of assessment
- Wound number (if more than one wound present)
- Has the wound been traced?
- Type of wound
- Duration of the wound
- Tissue type and percentage
- Clinical signs of infection
- Indicators of infection
- Swab sent and result
- Wound moisture levels
- Surrounding skin condition
- Wound pain (level and frequency)
- Wound odour
- Current status of the wound (deteriorating, static, improving, healed)
- Treatment objectives.

The following two pages of the form identify treatment details, such as dressing used, cleansing carried out, additional fixation, with the final page allowing for any additional notes to be made.

It is acknowledged by the project group that there is little research to support inclusion of any of the criteria identified within the form as reliable indicators of wound progress, other than the measurement of the wound which can be used to determine probability of healing (Cardinal et al, 2008). It must also be noted that even this has been questioned, as both the technique and accuracy of the various methods of measuring wound area and volume differ considerably (Jessop, 2005; Langemo et al, 2008; Little et al, 2009). However, it appears from both the project group's experience and the review of forms in current use, that practitioners rely on the indicators used (i.e. tissue type, size, etc) to provide information to help set objectives and measure progress. This broad experiential-based development process relates closely to the views of Leaper (2009), which challenge the tyranny of the randomised controlled trial (RCT) within wound care.

This is the first draft of the form but the group believe that it is the first time that consensus has been reached (albeit by a small group) on both the content and layout of a wound assessment form, thus giving it peer validation. The initial form has been piloted within a clinical area (Vowden,

2009) and some minor amendments have been made to layout and wording (e.g. ordering of information and size of boxes).

While the project group do not propose that the form should become a 'national standard' without further consultation, it is a positive step to see agreement across both acute and community settings on the minimum dataset that is required. It is hoped that the form will focus discussion and be a initial step towards developing a national benchmark, which, as the Best Practice document *Optimising Wound Care* recommends, should be in place and auditable so that every patient has a minimum standard of wound care.

Copies of the form are available online from: www.e-fficient.co.uk WUK

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Key points

- Wound assessment is a routine component of caring for patients with any type of wound.
- Every patient with a wound has a right to expect a good minimum standard of care.
- To develop a standardised wound assessment form for use with digital pen technology (Vowden, 2009), a review was carried out of 33 assessment forms.
- This is the first time that consensus has been reached (albeit by a small group) on both the content and layout of a wound assessment form, thus giving it peer validation.

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