Since nurses have a duty to keep clear and accurate records, they need to know how to measure and document wounds in order to track their progress to healing.

**PART 4 OF 6: WOUND MANAGEMENT**

### Accurate documentation and wound measurement

#### In this article...
- How to document a wound's progress
- Wound assessment tools
- How to measure the size of a wound

#### Author
Sylvie Hampton is an independent tissue-viability consultant.

#### Abstract

This article, part 4 in a series on wound management, addresses the sometimes routine yet crucial task of documentation. Clear and accurate records of a wound enable its progress to be determined so the appropriate treatment can be applied. Thorough records mean any practitioner picking up a patient’s notes will know when the wound was last checked, how it looked and what dressing and/or treatment was applied, ensuring continuity of care. Documenting every assessment also has legal implications, demonstrating due consideration and care of the patient and the rationale for any treatment carried out. Part 5 in the series discusses wound dressing characteristics and selection.

As in any aspect of healthcare provision, clear and accurate nursing documentation is essential in wound management. Regular and thorough documentation forms a record of any assessments made and care provided, changes in the condition of the wound, and any other relevant information. Having this information readily available ensures good continuity of care.

While many nurses see record-keeping as a time-consuming interruption to direct patient care, high-quality documentation need not take long to complete. In addition to improving patient safety, it can prevent time being wasted, for example, in duplicating assessments and care. In any event, it is a professional and legal requirement of nursing practice and cannot be avoided; in legal terms, if interventions are not documented, they did not happen.

No matter how skilled or experienced the nurse, inaccurate or incomplete documentation can lead to patient harm and could lead to legal proceedings against the nurse (Austin, 2011). Such cases often rely on expert witnesses to assess whether care was adequate; these witnesses will largely rely on documentation to do this.

#### Documentation in practice
Section 10 of the Nursing and Midwifery Council’s code (NMC, 2015) clearly outlines nurses’ record-keeping responsibility (Box 1). However, the task of documentation is not necessarily limited to registered nurses – they can delegate to healthcare assistants, assistant practitioners and nursing students to document the care they have given (Royal College of Nursing, 2012) – see box 2. Delegation of record-keeping follows the same principles as any other delegated task in healthcare settings, requiring ongoing supervision as appropriate. Contrary to the common myth, registered nurses are not required to counter-sign notes made by unregistered staff and students if they are confident that:

- The HCA, AP or student has been trained to appropriate standards and is competent to produce such records as part of the overall provision of care;
- It is in the patient’s best interests for the HCA, AP or student to do so (RCN, 2012).

#### Keywords
Measurement/Assessment/Wound assessment tools

- This article has been double-blind peer reviewed

#### 5 key points

1. **Documentation is vital in all aspects of care**
2. **Accurate and timely documentation is a professional duty and a legal requirement**
3. **Registered nurses can delegate documentation to unregistered staff**
4. **Wounds should be assessed and measured at least once a week**
5. **A record should be made every time a dressing is replaced**

#### TABLE 1 ‘HEIDI’ WOUND ASSESSMENT TOOL

<table>
<thead>
<tr>
<th>H</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Examination</td>
</tr>
<tr>
<td>I</td>
<td>Investigations</td>
</tr>
<tr>
<td>D</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>I</td>
<td>Indicators of progress or complications</td>
</tr>
</tbody>
</table>

#### TABLE 2 ‘TIME’ WOUND ASSESSMENT TOOL

<table>
<thead>
<tr>
<th>T</th>
<th>Tissue: non-viable or deficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Infection/inflammation</td>
</tr>
<tr>
<td>M</td>
<td>Moisture imbalance</td>
</tr>
<tr>
<td>E</td>
<td>Edge, which is not advancing or undermining</td>
</tr>
</tbody>
</table>
As members of the wider healthcare team, HCAs, APs and student nurses take personal accountability for good record-keeping. They must keep clear accurate and timely records of the care they provide to their patients to support communication, continuity and decision-making (Box 2); this includes all forms of records documenting information about individual patients and their care and treatment (RCN, 2012).

**Documentation in wound care**

A wound assessment must be made and accurately recorded at every dressing change: the size of the wound, its depth, colour and shape, as well as the condition of surrounding skin, should all be documented. This vital information indicates the stage and progress of the wound and is vital to ensure that the next clinician caring for the patient selects an appropriate dressing. If mistakes that are made due to inaccurate, incomplete or omitted records lead to patient harm and legal proceedings, an expert witness would have difficulty supporting any nurse who had proceeded in this way.

While their assessment follows the same principles as that of other wounds, most pressure ulcers are avoidable, so nursing care is primarily preventative. This involves assessing individual patients’ risk of developing pressure ulcers. Nurses should use a risk-assessment tool to identify patients at increased risk. While there is no robust evidence that the use of these tools decreases the incidence of pressure ulcers (Pancerbo-Hidalgo et al, 2006), if a patient developed a pressure ulcer and legal proceedings resulted, expert witnesses would look for evidence that the risk was assessed, and the use of assessment tools offer that evidence. The expert witness will assess whether the type of care provided matched the level of identified risk.

It is vital to perform the risk assessment every time the patient is assessed. In my experience of expert witness cases relating to patients whose condition deteriorated drastically, many assessments recorded the same level of risk as the previous entry, suggesting that the clinician had not actually assessed but simply ticked boxes.

A wound assessment should include assessment of the patient’s skin. Careful inspection and palpation of the skin can give valuable insights into the patient’s general physical condition, and whether it is improving or worsening (Hess, 2008). Part 2 of this series (Brown, 2015) discusses the importance of making a holistic assessment of the patient.

### BOX 1. NMC CODE ON RECORD KEEPING

- 10. Keep clear and accurate records relevant to your practice. This includes, but is not limited to, patient records. It includes all records that are relevant to your scope of practice. To achieve this, you must:
  - 10.1 Complete all records at the time or as soon as possible after an event, recording if the notes are written some time after the event
  - 10.2 Identify any risks or problems that have arisen and the steps taken to deal with them, so that colleagues who use the records have all the information they need
  - 10.3 Complete all records accurately and without any falsification, taking immediate and appropriate action if you become aware that someone has not kept to these requirements
  - 10.4 Attribute any entries you make in any paper or electronic records to yourself, making sure they are clearly written, dated and timed, and do not include unnecessary abbreviations, jargon or speculation
  - 10.5 Take all steps to make sure that all records are kept securely
  - 10.6 Collect, treat and store all data and research findings appropriately

Source: NMC (2015)

### Wound assessment

Various assessment tools are available to help with recording a wound’s condition and progress if a local tool is not available. Examples include HEIDI (Table 1), TIME (Table 2), TELER (Box 3) and Bates-Jensen (Table 3). All assist with accurate documentation and nurses should use the one required by local policy or select the one that best suits the needs of the patient.

There are many sophisticated methods for measuring wounds, including cameras that provide 3D images of the wound bed. These probably provide the most accurate measurement but are not always available.

### Linear measurement

The easiest measurement method is linear, also known as the “clock” method. This involves measuring the greatest length, width and depth of the wound, imagining the body as the face of a clock, with the head being 12 o’clock and the feet 6 o’clock.

- Determine the wound’s length (direct line from 12 o’clock to 6 o’clock) and width (9 o’clock to 3 o’clock) using a disposable ruler. Readings will never be absolutely accurate due to the variety and irregularity of wound shapes; they can only give an indication of changes.

The measurements should be documented at least weekly in centimetres; if the measurements are taken in exactly the same position each time, the wound progress will be clear. The depth can be assessed using a cotton-tipped bud, which is then placed against the ruler to give the greatest depth measurement.

### BOX 2. DELEGATION OF RECORD KEEPING

- Record keeping can be delegated to HCAs, APs and nursing students so that they can document the care they provide
- Record keeping is an integral part of every intervention and the HCA, AP or student should be assessed as competent in the complete provision of care, which includes record keeping. Until they are deemed wholly competent in both the activity and its documentation, countersigning should be performed
- As with any delegated activity, the registered nurse needs to ensure that it is in the patient’s best interests for the activity and documentation to be delegated to the HCA, AP or student
- Supervision and a countersignature are required until the HCA, AP or student is deemed competent at the activity and keeping records. The principles of accountability and delegation apply (see www.rcn.org.uk/hcaaccountability)
- Registered nurses should only countersign if they have witnessed the activity or can validate that it took place
- Organisations providing healthcare should supply clear guidance on record keeping for all staff, in line with the principles and guidance in the NMC’s Record keeping guidance

Source: Royal College of Nursing (2012)
### TABLE 3 BATES-JENSEN WOUND-ASSESSMENT TOOL

| Size | Use a ruler to measure the longest and widest aspect of the wound surface in centimetres; multiply length x width. |
| Depth | Pick the depth or thickness most appropriate to the wound using these descriptions:  
- Tissues damaged but no break in skin surface  
- Superficial, abrasion, blister or shallow crater. Even with, and/or elevated above skin surface (eg, hyperplasia which is an increase in the number of normal cells in a tissue or an organ and this can be precancerous).  
- Deep crater with or without undermining of adjacent tissue  
- Visualisation of tissue layers not possible due to necrosis  
- Supporting structures include tendon, joint capsule |
| Edges |  
- Indistinct, diffused = unable to clearly distinguish wound outline  
- Attached = even or flush with wound base, no sides or walls present; flat  
- Not attached = sides or walls are present; floor or base of wound is deeper than the edge  
- Rolled under, thickened = soft to firm and flexible to touch. Hyperkeratosis = callous-like tissue formation around wound and at the edges  
- Fibrotic, scarred = hard, rigid to touch |
| Undermining | Assess by inserting a cotton-tipped applicator under the wound edge; advance it as far as it will go without using undue force. Raise the tip of the applicator so it may be seen or felt on the surface of the skin; mark the surface with a pen; measure the distance from the mark on the skin to the edge of the wound. Continue the process around the wound. Then use a measuring guide* to help determine the percentage of wound involved |
| Necrotic tissue type | Select the type of necrotic tissue predominant in the wound according to colour, consistency and adherence:  
- White/grey non-viable tissue = may appear prior to wound opening; skin surface is white or grey  
- Non-adherent, yellow slough = thin, mucinous substance; scattered throughout wound bed; easily separated from wound tissue  
- Loosely adherent, yellow slough = thick, stringy, clumps of debris; attached to wound tissue  
- Adherent, soft, black eschar = soggy tissue; strongly attached to tissue in centre or base of wound  
- Firmly adherent, hard/black eschar = firm, crusty tissue; strongly attached to wound base and edges |
| Necrotic tissue amount | Use a measuring guide* to help determine the percentage of wound involved |
| Exudate type | Some dressings interact with wound drainage to produce a gel or trap liquid. Before assessing exudate type, gently cleanse the wound with normal saline or water. Pick the exudate type predominant in the wound according to colour and consistency:  
- Bloody = thin, bright red  
- Serosanguineous = thin, watery pale red to pink  
- Serous = thin, watery, clear  
- Purulent = thin or thick, opaque tan to yellow  
- Foul purulent = thick, opaque yellow to green with an offensive odour |
| Exudate amount | Use a measuring guide* to determine the percentage of dressing involved with exudate:  
- None = wound tissues dry  
- Scant = wound tissues moist; no measurable exudate  
- Small = wound tissues wet; moisture evenly distributed in wound; drainage involves <25% dressing  
- Moderate = wound tissues saturated; drainage may or may not be evenly distributed in wound; drainage involves >25% to <75% dressing  
- Large = wound tissues bathed in fluid; drainage freely expressed; may or may not be evenly distributed in wound; drainage involves >75% of dressing |
| Skin colour surrounding wound | Assess tissues within 4cm of wound edge. In dark skin the colours “bright red” and “dark red” show as a deepening of normal ethnic skin colour or a purple hue. As healing occurs in dark skin, the new skin is pink and may never darken |
| Peripheral tissue oedema and induration | Assess tissues within 4cm of wound edge. Non-pitting oedema appears as skin that is shiny and taut. Identify pitting oedema by firmly pressing a finger down into the tissues and waiting 5 seconds; on release of pressure an indentation remains  
Induration is an abnormal firmness of tissues with margins. Assess by gently trying to pinch the tissues; if this is not possible, induration is present  
Use a measuring guide to determine how far oedema or induration extends beyond the wound |
| Granulation tissue | This is the growth of small blood vessels and connective tissue in full-thickness wounds. Tissue is healthy when bright, beefy red, shiny and granular with a velvety appearance. Poor blood supply appears as pale pink or blanched to dull, dusky red colour |

Continued of page 19
Photography
If using photography to chart the progress of a wound, take at least two photographs at each assessment, one about 10cm from the wound and one that shows the position of the wound on the body.

Grids
By tracing wounds onto an acetate grid and counting the squares, nurses can quickly calculate an accurate surface area.

Different regions of necrosis, granulation and slough can be marked on the acetate and can provide an excellent comparison tool.

When the acetate is placed on the wound it will “fog” up and the wound margins may be difficult to define, but this can be overcome by wiping the acetate with alcohol prior to application.

However, care should be taken to ensure the alcohol surface does not touch the wound, as this can be extremely painful for the patient.

Wound progression
The first wound assessment provides the benchmark against which progress can be measured. The second may show the wound has grown as debris is removed (Fletcher, 2011). If the wound is going to heal, there will be a distinct difference in the wound. If the wound is going to heal, there will be a distinct difference in the wound.

Photography
If using photography to chart the progress of a wound, take at least two photographs at each assessment, one about 10cm from the wound and one that shows the position of the wound on the body.

Grids
By tracing wounds onto an acetate grid and counting the squares, nurses can quickly calculate an accurate surface area.

Different regions of necrosis, granulation and slough can be marked on the acetate and can provide an excellent comparison tool.

When the acetate is placed on the wound it will “fog” up and the wound margins may be difficult to define, but this can be overcome by wiping the acetate with alcohol prior to application.

However, care should be taken to ensure the alcohol surface does not touch the wound, as this can be extremely painful for the patient.

Wound progression
The first wound assessment provides the benchmark against which progress can be measured. The second may show the wound has grown as debris is removed (Fletcher, 2011). If the wound is going to heal, there will be a distinct difference in its condition by the third and fourth week.

The type of tissue in a wound can also

provide information on its progress towards healing. Treatment aims to encourage the development of granulation tissue; when this goal is reached, the wound will go on to heal. All treatment should therefore be considered with the objective of removing necrotic tissue and any bacteria present within the dead tissue. If bacteria are present, there will be an offensive odour.

Part 6 of this series discusses wound infection in greater detail.

Conclusion
Accurate and continuous measurement of wounds, and consistent and clear documentation, are vital to ensure good outcomes for patients.

Wounds are far more likely to heal if their progress is monitored and nurses treat them accordingly.

Documentation need not be a laborious task, and in any case is a professional and legal requirement; failure to complete documentation can lead to legal proceedings if a patient sustains harm and there is no documentation to demonstrate appropriate care was given.

Part 5 in this series explores the various wound dressings available and how to select them. NT

References

TABLE 3 BATES-JENSEN WOUND-ASSESSMENT TOOL (CONTINUED)

| Epithelialisation | This is the process of epidermal resurfacing and appears as pink or red skin. In partial-thickness wounds it can occur throughout the wound bed as well as from the wound edges. In full-thickness wounds it occurs from the edges only.
| Use a measuring guide to help determine the percentage of the wound involved and measure how far the epithelial tissue extends into the wound

* = Transparent metric measuring guide with concentric circles divided into four (25%) pie-shaped quadrants

BOX 3. THE TELER SYSTEM


The note-making method records the relationship between the care provided and outcomes in terms of clinically significant change.

The goals of treatment and care are negotiated with the individual patient. In addition, patients’ experiences of the impact of the wound and wound-related issues, including symptom management, dressing changes and intrusion on daily living, are recorded in personal statements, which are incorporated into the measuring mechanism.

The TELER system is comprehensive and does not rely on wound measurements, but rather on how the patient reports the changes in the healing wound. The outcomes demonstrate a significant method of audit (Grocott et al, 2005).

C L I C K H E R E  T O  S E E  T H E  T O T A L  A R T I C L E

COPYRIGHT EMAP PUBLISHING 2015
This article is not for distribution

www.nursingtimes.net / Vol 111 No 48 / Nursing Times 25.11.15 19

FUTURE ARTICLES IN THIS SERIES
- Part 1: The wound-healing process (11 November)
- Part 2: The principles of wound assessment (11 November)
- Part 3: Assessing and treating wound pain (18 November)
- Part 4: Selecting the most appropriate wound dressings (25 December)
- Part 6: Wound complications and how to deal with them (16 December)

For more on this topic go online…
- Best practice statements: should we use them?
- Bit.ly/NTBestPracticeStatements