

# Living with wound-associated pain: impact on the patient and what clinicians really think

- **Objective:** To gain an insight into current practice and practitioner opinions on the recognition and management of wound-associated pain as compared with that previously presented in the literature.
- **Method:** Delegates who attended *Wound Expo 2009* and participated in the interactive learning workshops held in the wound pain educational zone were surveyed. This was therefore a convenience sample. All participants signed a consent form prior to the interactive voting session to allow their anonymous responses to be used. The survey consisted of questions that had been devised to generate a clearer insight into current practice and opinion on wound-associated pain. Questions were posed during the workshop (displayed in a PowerPoint presentation) and attendees were given 10 seconds per question to select their preferred responses, each using an individual electronic interactive voting panel. All responses were recorded electronically and the data were subsequently analysed.
- **Results:** The survey identified a number of positive approaches used by the delegates in their assessment of wound-associated pain. These include a high level of continuous assessment, an awareness of the wide range of pain assessment tools available and an acknowledgement of the need for a multiprofessional approach to pain management.
- **Conclusion:** The findings highlight the issues clinicians face in the recognition, assessment and management of wound-associated pain during their everyday practice. Although many of these issues are difficult to resolve entirely, a fundamental element is that the patient's experiences must be assessed and documented in a consistent and informed manner, and then appropriate management actions taken.
- **Conflict of interest:** This paper was written in conjunction with the Clinical Project Team of Smith & Nephew Healthcare, who sponsored the wound pain zone workshops.

clinician-focused pain survey; wound-associated pain; pain assessment tools; types of pain

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Most patients with chronic wounds experience wound pain (Table 1). In the UK, as part of the government's quality agenda to improve the quality of care provided and make it more patient focused, patients are asked about the success of their treatment and the quality of the care they received.<sup>1</sup> This approach may be used in the management of wound pain to promote more informed patient outcomes by challenging practice and encouraging patient involvement in care. This concept was explored by Hollinworth and Collier,<sup>2</sup> who suggested that many factors affect wound pain, including local factors (infection or skin excoriation), emotional factors (feeling a lack of empathy from others) and clinician-associated factors (trauma at dressing change, the wound management product chosen, and poor bandaging technique).

The problem of wound-associated pain is often underestimated<sup>3</sup> for reasons including:

- Failure to routinely assess for wound pain
- Difficulties in quantifying wound pain reliably due to its multidimensional nature and the complex

aetiologies of chronic wounds<sup>4</sup>

- The possibility that clinicians may view patient-reported pain levels as overestimates.<sup>5,6</sup>

When wound-associated pain is identified, the practitioner then faces the difficult task of choosing a management regimen that addresses all aspects of living with a wound.

**Table 1. Proportion of patients experiencing pain by wound aetiology<sup>1,5,19-23</sup>**

Arterial ulcer	83%
Venous leg ulcers	64%
Mixed aetiology leg ulcers	48–54%
Diabetic foot ulcers	48%
Pressure ulcers	59%
Fungating wounds	38%

In order to gain an insight into current practice and practitioners' opinions on the recognition and management of wound-related pain, we conducted a survey of delegates attending the pain zone at 2009 *Wound Expo*, a two-day educational event held in Manchester last September that was attended by 600 health-care professionals from a variety of disciplines. *Wound Expo* is aimed at non-specialist nurses, and offers hands-on, interactive teaching sessions on the core elements of wound care, including pain assessment. This was the ideal platform for gaining an insight into nurses' attitudes and opinions on wound pain. Our objective was to gain an up-to-date picture of current practice, to compare with that previously presented in the literature.

### The nature of pain

Perhaps the most widely used definition of pain is that put forward by the International Association for the Study of Pain (IASP),<sup>7</sup> which describes pain as:

*'An unpleasant sensory and emotional experience which we primarily associate with tissue damage or describe in terms of such damage.'*

However, it must also be recognised that pain is highly personal, extending beyond the physical to encompass psychological, social and spiritual elements.<sup>8,9</sup> The concept of 'total pain' acknowledges that pain has significant psychological components, and that an individual's experience of pain is intimately linked to their emotional state.<sup>8</sup> Increased awareness of the multidimensional nature of pain has led to a refinement of the IASP definition (proposed some 30 years ago), to embrace the complexity of pain:

*'Pain is an individual and multi-factorial experience influenced by prior painful events, culture, beliefs, mood and ability to cope.'*<sup>10</sup>

Although definitions are useful, it must be remembered that pain is ultimately defined by the person experiencing it.<sup>11</sup>

### The physiology of pain

The complexity of pain extends to the physiological mechanisms involved in eliciting, resolving, prolonging and modulating this unpleasant sensation. Although the current understanding of pain physiology is far from complete, the initiation and propagation of pain involves a delicate interplay between numerous neurones, neuronal pathways and neurotransmitters within the peripheral and central nervous systems.

Regarding wound-related pain, the transmissions and resultant pain elicited are often classi-

**Table 2. Types of pain**<sup>8,24-26</sup>

#### Nociceptive pain

Described as a nagging, throbbing or gnawing pain

Associated with tissue damage

Trauma stimulates sensory receptors which relay impulses on the resultant damage back to the central nervous system where it is interpreted by the brain as pain

Generally remains local to the area of tissue damage i.e. the wound and immediate surrounding tissues

Can be acute or chronic

#### Neuropathic pain

Described by patients as a shooting, burning or 'pins and needles' type pain

Associated with nerve damage

Damage to nervous tissue leads to abnormal transmission of pain signals back to the central nervous system

May become independent and disproportional to the initiating injury.

Commonly persistent

#### Psychological pain

Emotional pain arising as a consequence of the psychological impact of illness or injury

Associated with negative emotional states such as anxiety, fear, depression, social isolation and embarrassment

Patient anxiety causes stress and reduces their pain threshold and pain tolerance

Can lead to reduced mobility, a change in sleep patterns or sleep disturbances, the feeling of having no energy, restricted social life and low self-esteem. It can also affect the patient's career

fied as 'nociceptive', 'neuropathic' or 'emotional' (Table 2).

The form of pain that most individuals readily understand is that arising from a neural impulse initiated in response to tissue damage, which is transmitted via the peripheral nervous system to the central nervous system, where it is perceived as pain ('nociceptive' pain). However, this is by no means the only form of pain that patients may experience (Table 2).

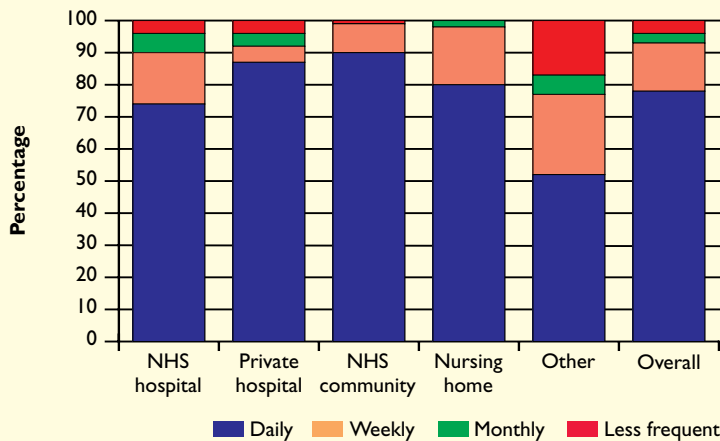
### Pain and wound management

In addition to the physiological stress caused, pain also impairs healing.<sup>12,13</sup> At a physiological level, pain can elevate blood pressure and cortisol levels

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- 14 RCN Clinical Practice Guidelines. The recognition and assessment of acute pain in children (update of full guidelines). Royal College of Nursing, 2009.

**Fig 1. How often do the respondents deal with wounds by place of work?**



15 Naylor, W. Assessment and management of pain in fungating wounds. *Br J Nurs* 2001, 10: (Suppl. 22), 33–52.

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— responses that impair inflammatory processes and so subvert the wound healing process.<sup>13</sup>

Therefore, wound-associated pain must be managed as effectively as possible, both from a patient perspective (to overcome any adverse psychological effects) and from a wound outcome-based stance (to overcome adverse physiological effects and shorten healing times). Both patient and practitioner must work together to achieve a balance between symptom management and achieving the desired clinical outcomes.

### Method

As stated above, the survey took place at 2009 *Wound Expo*, where there are seven education zones on different aspects of wound management, including wound pain, wound assessment, leg ulcer management and pressure ulcer care. The teaching took place in short (45 minute) interactive workshops within each zone, which were repeated four times each day.

The sample comprised delegates who attended any of the interactive workshops within the 'wound pain' zone. All participants signed a consent form allowing their anonymous responses to be used in this paper. The survey sample was therefore a convenience sample, determined by a process of self-selection.

The survey itself comprised questions devised to generate a clearer insight into current practice and opinion on wound-related pain. Questions were posed during the workshop (displayed in a PowerPoint presentation) and attendees were given 10 seconds per question to select their preferred responses, each using an individual electronic interactive voting panel. All responses were recorded electronically and the data were analysed.

### Results

During the eight interactive sessions held across the two-day event, 246 delegates who attended the pain zone took part in the wound pain survey.

### Participants' characteristics

*Wound Expo* was targeted at clinical staff from a range of care settings; all had an interest in wound management. The first questions in our survey enquired about respondents' workplaces and the frequency with which they engage in wound management activities.

The largest group of respondents comprised clinicians working in NHS hospitals (n=80, 32.5%). More than half of the respondents worked for the NHS in either a community (n=70, 28.5%) or hospital setting (n=80, 32.5%). The remaining 39% stated that they worked in a nursing home (n=36, 14.6%), private hospital (n=24, 9.8%) or 'other' setting (n=36, 14.6%).

The second question investigated the frequency with which respondents dealt with wounds throughout the course of their work. The majority (77.2%, n=186) managed wounds daily; 14.5% (n=35) engaged in wound management on a weekly basis and 3.7% (n=9) monthly. Only 4.6% (n=12) performed wound care less frequently than once per month.

That the majority of respondents (91.7%, n=221) dealt with wounds on a weekly basis or more frequently was important, as it suggested that our sample group had sufficient hands-on experience to offer credible insight into issues of wound-related pain. This increased our confidence in the validity of the remainder of the responses.

Wound management frequency data were examined for variations relating to workplace. Results are given in Fig 1. This reveals that 90.0% (n=63) of NHS community staff respondents dealt with wounds on a daily basis, compared with 51.4% (n=18) whose workplace was classified as 'other'. Although the percentage varied, the majority of respondents in every setting reported involvement in wound management on a daily basis. Hence, all are likely to offer valid and reliable insights into current practice on wound-associated pain.

### Wound pain: recognition, assessment and documentation

The next questions aimed to clarify current practice and the recognition, assessment and management of wound-related pain.

Responses to the question of whether respondents always assess pain levels during a wound assessment are given in Fig 2. The largest group of respondents (43.3%, n=103) stated that they document wound-associated pain as part of their wound assessment 'only if the patient complains of pain'.

The remainder stated that they document it 'always' (34.5%, n=82), 'never' (5.0%, n=12) or on a varying and individual basis, 'dependent upon the patient' (17.2%, n=41).

Despite this, responses to the next question, which asked when respondents assess wound pain, suggest that it was common practice to continually assess wound pain during wound management procedures (Fig 3).

Delegates were then asked how they record patients' levels of wound pain. In every care setting, respondents most commonly use either a 0–10 scoring system, where zero relates to 'no pain at all' and 10 'the worst pain imaginable', or they asked questions (Fig 4). Overall, six different techniques were identified, a range which suggests that no single assessment tool or technique will be suitable with every patient.

Fig 5 illustrates responses to the next survey question: 'When you have a patient with wound-associated pain, do you feel the pain is addressed sufficiently?' Overall, there was an almost even split between 'yes' (48.7%, n=116) and 'no' (51.3%, n=122), although responses varied according to the care setting. The largest variation was between NHS community staff ('yes': 35.3%, n=24; 'no': 64.7%, n=44) and private hospital staff ('yes': 75%, n=18; 'no': 25.0%, n=6).

Responses to the next question revealed a consensus of opinion (Fig 5) that the responsibility for the management of wound pain is multidisciplinary.

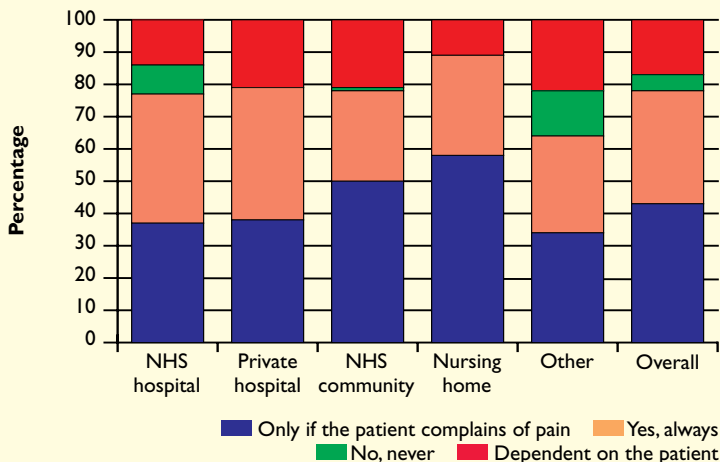
Nevertheless, the next question, which enquired about the frequency of referrals to the pain management team, revealed that in 68.6% (n=162) of cases respondents referred patients either infrequently or never (Fig 6). This suggests that instigating multi-professional care, although seen as a worthy objective is somewhat difficult, and therefore infrequently achieved in practice.

## Discussion

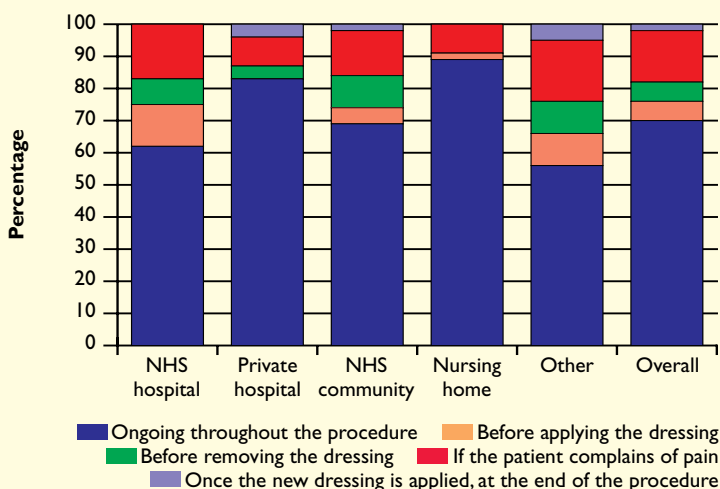
This survey identified a number of positive approaches used by the delegates in their assessment of wound pain. These include a high level of continuous assessment, an awareness of the wide range of pain assessment tools available and acknowledge the need for a multiprofessional approach to pain management.

Nevertheless, the results raise issues that are worthy of discussion. First, that 43.3% of respondents only document pain when patients verbalise discomfort, which raises a number of important issues. If the documentation of pain depends on the patient verbalising it, then wound pain will be under-reported as patients may not always volunteer that they are in discomfort. Some patients might expect to experience wound pain, or even consider it a good sign ('it means it's healing'). In many such

**Fig 2. When completing a wound assessment do you always document wound pain levels?**



**Fig 3. When do you assess the patient's wound pain?**

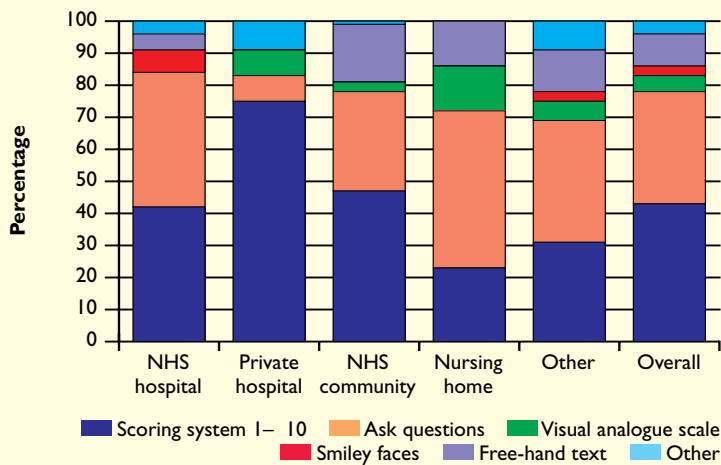


instances, pain will not be verbalised and, hence, not assessed. In addition, it may be difficult for some patients to communicate pain unless the practitioner undertakes an assessment.

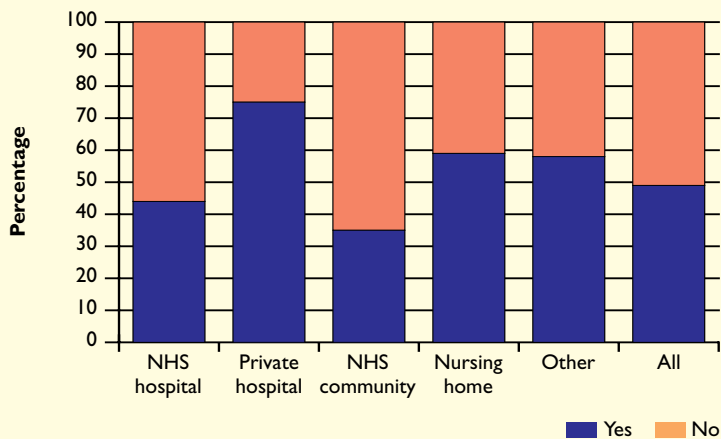
It is also possible that some practitioners may be reluctant to broach the issue of wound pain for fear of increasing the patient's awareness and sensitivity to their pain. This can cause them to lose confidence in their ability to initiate appropriate and effective pain management.

The Royal College of Nursing (RCN) acknowledges the importance of 'making pain visible'.<sup>14</sup> When pain is not assessed, it may continue unacknowledged, leading to feelings of isolation as patients are left to 'get on with it', 'grin and bear it' and 'live with it'. This can have repercussions on patient con-

**Fig 4. How do you record the patient's level of wound pain?**



**Fig 5. When you have a patient with wound-associated pain, do you feel the pain is addressed sufficiently?**



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cordance, psychological status and wound healing.<sup>15</sup> Furthermore, if wound pain is not assessed in the first instance, the window of opportunity for early and effective treatment could be missed, leading to chronic and intractable pain.

Posnett and Franks<sup>16</sup> estimated that approximately 200,000 people in the UK are affected by a chronic wound at any one time. Applying the results of the current study to a patient population of 200,000 suggests that, in the UK, approximately 10,000 patients might never have their pain levels documented. In addition, some 86,000 may only have their pain levels documented on complaining to a clinician.

Although a proportion of these patients would probably express discomfort, some may require questioning or prompting due to the nature of their personality or an expectation and acceptance that

pain is a necessary part of their care experience. In such circumstances, patient stoicism can result in non-assessment of pain.

More positively, our results show that it was common practice to assess pain throughout a procedure. This will ensure that clinicians do not prompt patients to focus on (and associate pain with) specific elements of a procedure, such as dressing removal. Hence, patients are free to describe the events that they associate pain with, rather than just when directed by the assessing clinicians.

The accurate assessment of pain during a procedure can be challenging when a single practitioner both treats and assesses. When using a visual analogue scale, for instance, a valid response can only be obtained if the patient repeatedly refers to the scale throughout the procedure — all their responses should be documented. However, doing so may require the clinician to either interrupt the procedure, or rely on their memory and retrospectively document pain levels. A further issue is that continuous assessment constantly focuses the patient's attention on pain, and so may overstate the extent of their wound-associated pain.

The results also showed that respondents were aware that a variety of pain assessment scales are available. The RCN states that: 'No individual tool can be broadly recommended for pain assessment in all circumstances'.<sup>14</sup> Practitioners should always make the most appropriate selection possible, based on the individual patient and issues of practicality. Whichever method is used will only be of value when used consistently.

However, no pain assessment tool can ever capture the totality of the patient's pain experience.<sup>3</sup> In some cases — the assessment of patients with dementia, for instance — standard tools will not suffice. However, the impact of pain is no less significant in this patient group. Indeed, it may actually be magnified, as patients tend to feel powerless. In such instances, it is still desirable to make some measure of pain, albeit a more subjective one. This might be based on patient behaviour, vocalisation, and body language.

While the selection of an appropriate pain assessment method can be of crucial significance, any method is better than none. Considering that so many survey respondents (43.3%) only assessed pain when a patient complained of it shows us that clinician-initiated assessment is a critical first step.

Thirty-five per cent of NHS community staff considered that pain was addressed sufficiently, compared with 75% of private hospital staff. This could be due to:

- Differences in the patient populations treated
- Differences in the wound types commonly encountered (acute elective versus chronic wounds)
- Differences in clinician-patient interactions: transactional (in which postoperative pain is anticipated

and well managed) versus relational (good dialogue, chronic recalcitrant wounds and associated pain).

The majority of respondents stated that pain management is the responsibility of the multidisciplinary team. This reflects the fact that, when attempting to address wound-associated pain, working with specialists, colleagues, the patient and family members offers a range of perspective on the issue, which can aid effective management.<sup>9</sup> However, clinicians' ability to initiate a multiprofessional approach can be variable, depending on a range of factors including the care setting, service provision and knowledge of referral pathways/processes.

Despite the above response, two-thirds of the respondents rarely or never referred patients to the pain management team. The low overall onward referral rate raises questions as to whether more frequent intervention by the pain management team might have positive patient impacts:

- More effective management of wound pain
- Positive impacts on healing physiology via improved pain relief
- Possible reduction in the occurrence of chronic recalcitrant pain by more timely intervention.<sup>6</sup>

A wealth of literature has explored pain at dressing change.<sup>2,9,17,18</sup> Although pain at dressing change must be managed effectively, it is essential that clinicians do not focus their attention solely on this one aspect as it forms only a small part of the overall patient experience.

The key should be an attempt to create an overall pain-free or reduced pain experience. In this instance, the patient will experience pain at various points in time and the objective should be to avoid focusing on a single causal event and instead to consider and adopt a management strategy that will address as many pain-trigger events as possible.

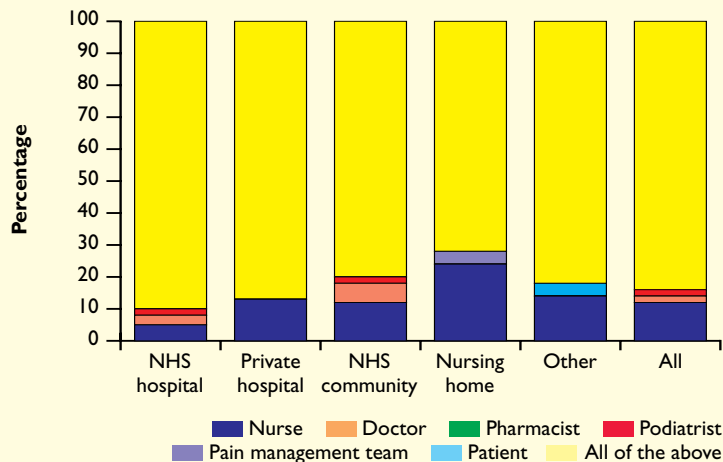
This survey has highlighted that there are still many unanswered questions on the issue of wound-associated pain. Clearly, further work is needed, particularly in relation to practical management options that acknowledge the multidimensional character of wound pain. Respondents acknowledged that many pain assessment tools are available, but recognised that the emphasis must remain on a tool that is simple, thorough, practical, consistent, measurable and effective.

In relation to wound management products, although the pain associated with dressing change can easily become a focus to the clinician due to its high visibility, measures should be taken to consider an overall approach when patient comfort is considered during dressing application, subsequent wear and on removal.

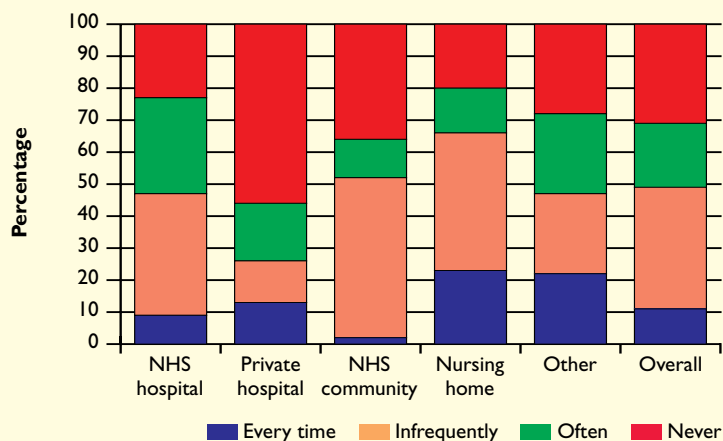
### Conclusion

While the literature contains numerous articles on wound pain, in many cases the focus is on pain at

**Fig 6. Who do you feel is responsible for wound pain management?**



**Fig 7. How often do you refer a patient with wound-associated pain to the pain management team?**



dressing change. It is perhaps understandable that clinicians focus on this as it is a hands-on, patient-facing procedure during which the occurrence of pain is less easy to overlook. While not wishing to underestimate the significance of pain at dressing change, it is important that clinicians attempt to address, or at least acknowledge, wound-associated pain in its entirety, as experienced by the patient as part of living with a wound.

This survey has highlighted the issues clinicians currently face in the recognition, assessment and management of wound-associated pain during their everyday practice. Although many of these issues are difficult to resolve entirely, a fundamental element is that the patient's experiences must be assessed and documented in a consistent and informed manner, and then appropriate management actions taken. ■