

# Chronic wound pain: a literature review

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## Abstract

Wound-related pain is an important consideration for patients, yet is an aspect of wound management that often seems to be given relatively little attention by clinicians. Wound-related pain may be discussed openly with patients, yet it seldom is well documented. To understand this better a comprehensive literature review was undertaken that examined how well wound-related pain is assessed, documented and researched.

Four key themes were identified in this process<sup>1</sup>; assessment and management of pain related to chronic wounds<sup>2</sup>, clinicians' and patients' perspectives relating to acute and chronic wounds<sup>3</sup>, procedural pain associated with chronic wounds and<sup>4</sup> the effect of pain management on patients' quality of life (QOL).

## Introduction

Wound-related pain is commonly associated with chronic wounds<sup>1-3</sup>. It can often be misunderstood, under assessed and poorly documented<sup>4,5</sup>. Clinicians who are involved in the care of people with chronic wounds have the impression that for many, issues surrounding chronic wounds substantially affect their quality of life (QOL)<sup>6,7</sup>.

This, however, has not been studied in representative samples of community-dwelling older people. A comprehensive review of the literature was undertaken to address these matters.

## Methods

A comprehensive literature review was undertaken, which generated 58 papers for consideration. Search terms included:

pain, pain and wounds, chronic wound pain and wound-related pain as key words, with Medical Subject Headings (MeSH<sup>®</sup>) terms and Boolean operators. We limit searches to English and human studies and other search tools were used to refine the process to generate only relevant work. All publication types were considered, resulting in the generation of a set of publications that included reviews, editorials, other commentary and studies of pain with primary or secondary outcome measure. A variety of electronic search engines were used including Cinahl, Medline and Ovid, as well as hand-searching hard copy wound journals not available electronically.

Four main themes were identified as repeating throughout the available literature from a combination of research studies, discussion papers and other literature reviews. Table 1 provides specific references and summaries of the nature of the studies reporting these four themes.

### *Assessment and management of pain related to chronic wounds*

A variety of issues were discussed throughout these papers relating to how wound-related pain is assessed and managed in people with chronic wounds. It was noted that a variety of validated pain scales were used to assess the participants' pain. These included the McGill Pain Questionnaire (both short and long forms) and the 0-10 numeric scale. Contributing factors that have an affect on the patient's pain levels were also discussed, along with the impact of pain on QOL.

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### *Clinicians' and patients' perspectives relating to acute and chronic wounds*

Patients' perspectives related mainly to QOL issues and how their wounds affect their everyday life. One study compared the life situation of elderly people living with leg ulcers compared with those living without leg ulcers<sup>8</sup>.

### *Procedural pain associated with chronic wounds*

It became evident, when reviewing the literature related to this theme, that there have been some relevant, evidence-based recommendations made in order to minimise procedural pain associated with chronic ulcers; yet there are still aspects that require further research in order to endorse some types of therapy to achieve this goal.

### *Assessing and managing pain and how this affects QOL in patients with chronic wounds*

The papers reviewed relating to this theme clearly highlighted the significant impact chronic wound-related pain has on a person's QOL. Several papers discussed how patients stated their wound-related pain was not well assessed or managed by some clinicians<sup>9,10</sup>.

From the review, 58 papers with wound pain as a key theme were identified and reviewed. As would be expected, the authors of most of the papers considered that pain is a significant issue, if not the main factor, for many people living with chronic wounds<sup>5, 12, 19, 43</sup>. The greatest number of papers (24/58) focused on the assessment and management of pain of venous leg ulcers (VLU) and chronic leg ulcers<sup>16, 17, 44</sup>. Most of the research reported interviews with patients who had been suffering from VLU. Patients' perceptions and pain scores were collated, along with other important qualitative data about the patient experience of wounds<sup>16, 17, 44, 45</sup>. Contributing factors that have an effect on the patient's pain levels were described, as was the impact of pain on QOL<sup>18, 19</sup>.

The various validated pain scales and questionnaires that were used to assess the participant's pain relating to their ulcers included the *Medical Outcomes Short Form-36* questionnaire<sup>17</sup>, the *McGill Pain Questionnaire*<sup>12, 18, 27</sup> and 0-10 numeric pain scale<sup>26</sup>. This suggests that a single, validated pain scale that would be suitable for all patients has not been developed.

Several research studies discussed how patients stated that their wound-related pain was not well assessed and managed by some clinicians<sup>21, 46</sup>.

*Table 1. Summary of themes and references from review.*

Key themes identified	References	Comments
1. Assessment and management of pain related to chronic wounds.	(11-32)	The majority of these papers were cross-sectional and qualitative studies, including phenomenological-hermeneutical (PPH) approach to interview, along with one literature review (23) and three discussion papers (29-31). Some of the studies had small sample sizes (<20 participants) (14, 15, 25, 32) which limits the value of the results. Studies with significantly larger sample sizes involved a large number of participants across several sites of various organisations and regions (11-13, 16, 18-21, 24, 26-28)
2. Clinicians' and patients' perspectives relating to acute and chronic wounds	(1, 6-8, 33-36)	Most of the studies consisted of questionnaires sent to clinicians, which included nurses and doctors predominantly. A variety of research methods were used to collect the data, including PPH through interview.
3. Procedural pain associated with chronic wounds	(37-41)	The research methods used for these papers were all different. One involved a randomised, double-blind, placebo-controlled crossover trial including 13 patients (37). One was a systematic review (38), one was an internationally recognised consensus documenting outlining strategies to minimise pain and trauma on dressing change (40), one was a comparative, descriptive study (39) and the last was a questionnaire (41)
4. Assessing and managing pain and how this affects QOL in patients with chronic wounds	(2-5, 9, 10, 24, 42-58)	The majority of the literature reviewed consisted of discussion papers relating to this theme. There were also several observational studies and two literature reviews.

A number of reports highlighted what a significant impact chronic wound-related pain has on a person's QOL<sup>13-16, 22</sup>.

There have been some evidence-based recommendations of management strategies that minimise procedural pain associated with chronic ulcers<sup>38-41</sup>; however, further research is required to evaluate some types of therapy to achieve this goal<sup>37</sup>.

Coulling provided pharmacological and non-pharmacological therapies for managing painful wounds<sup>42</sup>. Douglas also supported these interventions, recommending the importance of establishing the underlying cause of the wound, managing the wound-related pain at dressing changes and choosing the appropriate dressing product for each wound<sup>5</sup>. These aspects were reinforced by several other papers included in the review<sup>10, 51, 52, 55</sup>.

Douglas and Way provided an excellent discussion paper on the importance of nurses in assessing wound-related pain and how they can advocate for their patients<sup>5</sup>. General agreement throughout the review also highlighted how important assessment and management of wound-related pain is for patients, in order to promote a better QOL. Education for patients and clinicians alike is an essential element to this discussion<sup>10, 41, 56</sup>.

Some have suggested that a holistic and integrated wound management team has a positive impact on wound-related pain<sup>9, 40, 44</sup>. A consensus document has also highlighted that this is an important aspect of quality care and further, multidisciplinary research is required into this area<sup>56</sup>.

## Summary

The significance of wound-related pain on people's QOL is substantial and, therefore, needs to be considered with every patient who experiences a wound. This review of the literature shows that further research is required into the causes of wound-related pain and how this type of pain can be better managed for everyone who experiences it.

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