PRINCIPLES OF:
PAIN ASSESSMENT

Burns can be extremely painful and accurate pain assessment helps nurses to make decisions about when and how to give analgesia and what information they need to share with the multidisciplinary team. Nurses have a responsibility to ensure that they have the knowledge to assess pain and provide effective pain management. Managing wound pain is an essential part of good quality care to which all patients are entitled.

Alison Taylor is a nurse consultant in pain management at Epsom & St Helier University Hospitals NHS Trust

Pain is the most common symptom that leads patients to seek advice from nurses. Acute pain occurs with many illnesses and it is estimated that chronic or persistent pain affects nearly 20% of adults in the UK (Breivik et al 2006). Unfortunately, despite many advances in medicine, many patients continue to suffer unnecessary pain. Accurate pain assessment is the first step in managing pain and has been shown to improve pain management. The aim of this article is to help improve knowledge of pain assessment.

Table 1.

Definitions of pain

Acute pain	Of recent onset. Has a limited duration. It usually has an obvious cause such as a burn, surgery or disease and is a warning that there is potential tissue damage
Chronic or persistent pain	Pain that continues beyond the expected time of healing (usually 3–6 months). Sometimes a specific cause cannot be found and it can be difficult to treat. Persistent pain loses the useful purpose that we see in acute pain and has a major impact on quality of life
Somatic pain	Pain from the muscle, soft tissue or bones and is described as sharp, hot or stinging. It is usually well localised (felt in a specific, defined area) and the surrounding tissue is often tender
Visceral pain	Pain from organs or surrounding tissues. It is often less localised and can radiate. Patients often describe it as deep aching, cramping or squeezing pain. It may be associated with symptoms such as sweating and nausea
Nociceptive pain	Where nerves transmit pain signals in a normal way to the brain in response to tissue damage. Stimuli include extremes of temperature, pressure, i.e. swelling of tissues, and chemicals (includes chemicals produced by our own body, i.e. inflammatory agents)
Neuropathic pain	Abnormal stimulation of the nerves, which can originate from a dysfunction, i.e. nerve damage, or can be due to continued, sustained stimulation. Patients often describe it as burning, shooting or prickling pain. It is often accompanied by other sensations including pins and needles, allodynia (pain from stimuli that is not normally painful, such as a light touch), hyperalgesia (increased sensitivity to painful stimuli). Examples of conditions associated with neuropathic pain include post-herpetic neuralgia or peripheral neuropathy. However, neuropathic pain can be acute or lacking in any obvious cause

What is pain?

The sensation of pain can be difficult to define. The most commonly used definition describes pain as 'an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage' (International Association for the Study of Pain [IASP], 1979). This definition highlights the 'unpleasantness' of pain and that it is both a physical and emotional experience. Although the definition mentions tissue damage, patients may experience pain without any obvious tissue damage. Another helpful definition by McCaffery (1968) defines pain as 'what the patient says it is, and exists whenever the patient says it does'. This highlights the subjective, personal nature of pain and reinforces the need to believe the patient. They are, after all, the only ones who can describe their experience.

Types of pain

To be able to assess pain accurately, an understanding of the types of pain and some definitions is necessary (*Table 1*).

Managing pain

Pain needs to be managed for humanitarian reasons, to improve recovery and to prevent

complications. The harmful effects of unrelieved pain can include stress, increased pulse, blood pressure, cardiac workload and decreased gastrointestinal motility. It is even possible that continuing pain may lead to increased pain sensitivity and persistent pain. Pain often also affects the patient's mood, sleep, mobility and appetite. This can have devastating effects, e.g. if patients are unable to mobilise due to pain, they are at risk of pressure ulcers and if they are unable to eat a nutritious diet, this can affect wound healing.

Pain assessment

Safe and effective pain management is only possible if pain is assessed regularly. Pain is often not directly observable or measurable, which can make it difficult to assess. As pain is a subjective experience, asking the patient about their pain is the most appropriate way to assess it. Accurate assessment also relies on the patient understanding what we are asking and why.

For some patients, it may not be possible for them to describe their pain, e.g. in the case of cognitive impairment or decreased consciousness. In these situations, assessment based on objective signs can be used. However, objective signs including grimacing, moaning and increased pulse and blood pressure, should not be relied on alone to determine whether a patient has pain or not. These are generally signs of very severe pain, may only occur for a brief period and are not always present. Despite this fact, many nurses often rely on observations and the way patients look to determine whether they have pain or not.

Table 2.

The aims of pain assessment

To find out information which helps determine the cause and type of pain
To help the patient to describe their painful experience
To find out about the impact the pain is having on their quality of life and ability to function
To allow documentation of the patient's pain in a standardised way
To allow an understanding of what treatments would be most helpful and effective
To find out about the patient's beliefs, which may affect their pain management, i.e. fear of taking medication
To find out whether current treatments are effective

Aims of pain assessment

The aim of assessment is to help determine the cause of pain, the impact on quality of life, the best treatments and the effectiveness of current treatment (*Table 2*).

Full pain assessment

Pain assessment includes more than the use of a 'pain scoring tool', which only measure intensity or how strong the pain is. Information about the location, what it feels like and the pattern of the pain is also important. Assessment should also include asking about dynamic pain (pain when the patient moves, takes deep breaths and coughs). A thorough assessment will also reveal issues such as patient's fears of taking analgesics. The acronym OPQRSTU is a useful reminder of questions to ask (*Table 3*).

Onset: when did your pain begin?

Even if the patient has had surgery and the answer to this question may seem obvious, it is important to find out when the pain started. Any new pain needs to be investigated and a new diagnosis considered. If pain from a chronic wound has become worse, this may then lead an investigation into whether perhaps there is an infection.

Provoking/palliating: what makes the pain better or worse?

Asking the patient what makes the pain worse or better may help to find the cause and treatment, i.e. if a patient has a wound that is painful when lightly touched, there may be an element of neuropathic pain. Some patients may have found a position which makes the pain better, i.e. elevating the leg, or they may find a particular pain medication

If you have had treatment for your pain, how much has this relieved the pain?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

No relief — Complete relief

Figure 1. A pain relief scoring tool.

Table 3.

Describing pain using the OPQRSTU method

O	Onset	When did the pain start? Is it an old pain, a new pain or an old pain that has become worse? How long does is last? How often does it come on? Any other symptoms that have started along with the pain?
P	Provoking, palliating	What starts the pain? What makes it worse? What makes it better?
Q	Quality	What does the pain feel like? What type of pain is it?
R	Region, radiation	Where is the pain? Does it spread anywhere?
S	Severity	How strong or intense is the pain? Use the appropriate pain scoring tool, e.g. on a scale of 0–10, with 0 being 'no pain' and 10 being 'worst possible pain', how strong would you say the pain is?
T	Treatment	Have you tried treatment for this pain? If so, did it help? Are you allergic to any painkillers or had any side-effects from them?
U	Understanding	What do you believe is causing this pain? How does it affect you and/or your family?

helps. If medications help, it is useful to ask how much of the pain it relieves using a pain relief scoring tool (*Figure 1*).

Quality: what does the pain feel like?

The way patients describe their pain may provide many clues as to what is causing the pain, the type of pain and the appropriate treatments, i.e. crampy abdominal pain may be colic, which may respond to antispasmodic drugs. Cardiac pain is often described as 'crushing'.

Region and radiation: where is the pain and does it spread anywhere?

This may seem obvious, especially if the patient has just had an operation, however sometimes the pain is not where we think it is. For example, a patient with a large sacral pressure ulcer may complain of hip pain. Asking if the pain radiates or spreads anywhere may help determine the cause.

Severity: how strong or severe is the pain?

There are no objective ways of measuring pain like there is, for example, for blood pressure. The most reliable way is to ask the patient and to use a tool to help the patient 'measure' the intensity. The tools are based on numbers, words or pictures.

Treatment: what treatments have been tried so far?

It is important to ask what medications or treatments have been tried so far and how much they helped.

Understanding: what is your understanding about the pain and the treatments?

It is useful to talk to patients about their understanding of their pain and treatments. This helps the patient to be an active participant in their care and improves communication. Discussions may also reveal any fears about taking analgesics (including fear of addiction and side-effects). Cues for a full pain assessment are outlined in *Table 3*.

Pain assessment tools

A variety of pain assessment tools can be used. The tool needs to be one that is easily understood by staff and patients, should be quick to apply and easy to document. The tool should be explained and the patient should not feel rushed. Many organisations include pain assessment on the vital signs chart to ensure regular assessment. Once an appropriate tool is chosen for a patient, the same tool should be applied each time. Commonly used tools are outlined in *Figure 2*.

Assessing wound pain

Patients may have acute or persistent pain with wounds. It is important to ask what the pain is like at rest, on movement and when procedures such as dressing changes are being undertaken. Many patients fear dressing changes because dressing removal and cleansing the wound can cause pain. If a patient has a chronic wound, attention needs to be paid to how it affects their quality of life. Pain can affect their quality of life in the following ways:

- Decreased appetite
- Difficulty sleeping
- Altered mood

- Relationship problems
- Mobility.

Assessment tools for specific conditions

There are also assessment tools for specific types of pain, i.e. the LANSS assessment tool helps detect neuropathic pain (Bennett, 2001) and the Brief Pain Inventory (Daut et al, 1983) includes questions for persistent pain. For patients in the community, it may be appropriate for them to keep a 'pain diary' which can be discussed at each visit.

Frequency of assessment

Patients should be regularly asked about pain. Hospital patients should be asked on admission, and if they do have pain a full assessment should be carried out. Therefter, pain intensity should be assessed when assessing vital signs, and more frequently for acute or uncontrolled pain. If any new pain develops, a full assessment should be repeated. In the community, pain should be assessed at every contact with the patient as part of their general assessment. It is also important to assess pain before and after analgesia to ensure that it is effective. This is often not the case and in one study looking at pain reassessment following analgesia, only 15.3% of patients with hip fractures had their pain reassessed within one hour following analgesia (Bucknall et al, 2007).

Challenging patient groups

For some patients, assessment is more complex, e.g. older people, those with dementia and children.

Older people

Many older people think physical pain is an inevitable part of ageing and may be hesitant to report it. Unfortunately, studies show that older people are more likely to have pain, but less likely to experience good pain management (Help the Aged, 2008). Some older people may deny they experience 'pain' but if the nurses uses words such as soreness, they may acknowledge this. National guidance outlining specific needs for older people including assessment tools provides useful guidance (Royal College of Physicians, British Geriatrics Society and British Pain Society, 2007).

Patients with cognitive impairment

Most traditional scoring tools rely on the patient being able to communicate and understand the tools. However, some patients may suffer cognitive impairment, i.e. through a learning disability, which may make assessment difficult. However, there are many tools based on objective signs which are helpful. Examples include the checklist of nonverbal pain indicators (Feldt, 2000), the Abbey pain scale (Abbey et al, 2004) and the PAINAD scale (Lane et al, 2003).

Children

An appropriate pain assessment tool for children is vital, especially when they are too young or unable to tell the nurse about their pain. There are many tools available and a specific one needs to be chosen according to the patient's age and level of understanding. Updated guidance on the recognition and assessment of pain in children including validated assessment tools has been published (Royal College of Nursing [RCN], 2009).

Table 4.

Barriers to effective pain relief

Worries about pain relief masking the pain and affecting any diagnosis
Belief that pain is not harmful, but a natural consequence of surgery and injury
A tendency to underestimate patients' pain
Not recognising the variation in patients' perceptions of pain
Lack of regular and frequent pain assessment
Fear of addiction or side-effects
Lack of knowledge of opioid doses and the inter-patient variability
Lack of accountability
Inadequate education of patients and staff

Barriers to effective pain assessment

There may be many barriers to effective pain assessment including lack of staff, time, knowledge deficit, attitudes or beliefs. A summary of barriers is outlined in *Table 4*.

Nurse-related barriers

Some studies show that healthcare staff do not always assess pain well. For example, studies showed that some nurses tend to doubt what patients say about their pain (White, 1999), that nurses do not always ask about pain (Watt-Watson, 2001) and that they overestimate the percentage of patients who over-report their pain (O'Brien et al, 1996; Brown et al, 1999).

Other studies have shown that when questioned, nurses stated that they relied on what the patient said about their pain; however, in practice many in fact relied on how the patient looked and the

Visual analogue scale (VAS)

A 10cm line with no markings except 'no pain' at one end and 'worst imaginable pain' at the other end. The patient should be asked to mark a point on the line that represents their pain. The distance from no pain to the patient's mark is then measured in millimetres to give a score out of 100.

Verbal rating scale (VRS)

The patient is asked to select from a list of words describing the severity. Some patients find it easier using words than numbers. For ease of documentation, many organisations provide a number alongside which can more easily be documented.

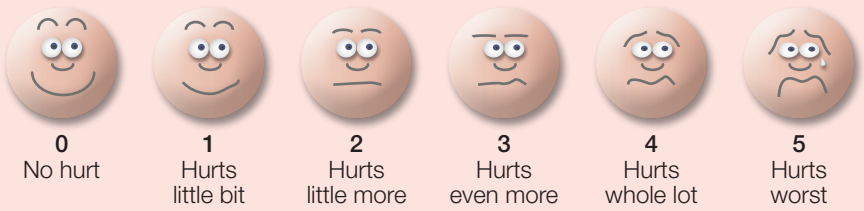
No pain	**(0)**
Mild pain	**(1)**
Moderate pain	**(2)**
Severe pain	**(3)**

Numerical rating scale (NRS)

The patient is asked to give a number between 0 and 10, where 0 is no pain and 10 is the worst pain imaginable.

Faces e.g. Wong-Baker FACES Pain Rating Scale

Originally used for children, has also been used successfully in older adults.



Brief word instructions:

Point to each face using the words to describe the pain intensity.
Ask the child to choose the face that best describes their own pain and record the appropriate number.

Source: Hockenberry et al (2005)

Figure 2. Various pain intensity scoring tools.

nurse's own experience of 'how it usually is' to clarify the intensity of the patient's pain (Kim et al, 2005).

Although pain is a subjective experience, these examples show that some nurses do not necessarily practice the principle of listening to what the patient says about their own pain.

Patient-related barriers

Many patients will not tell nurses about their pain unless asked specific questions. They are often reluctant to interrupt busy nurses, or are fearful of being regarded as a 'nuisance'. Some patients may avoid reporting pain because they fear medications (Ward et al, 1993). Others wish to 'be brave', may fear that staff do not believe them, or have not been taken seriously in the past. Culture may also influence patients' behaviors and willingness to report pain.

Importance of good communication

Good communication with the patient allows nurses to gain an understanding of the patient's experience and enhances rapport. This in turn may encourage patients to report pain and to do so without fear that they are 'disturbing' staff. Verbal and written communication within the multidisciplinary team is important. Assessments and response to treatments must be accurately documented and an adequate handover provided to ensure continuity of care.

Conclusion

While pain management is the responsibility of all healthcare staff, nurses and support workers have a pivotal role. Accurate pain assessment helps nurses to make decisions about when and how to give analgesia and what information they need to share with the multidisciplinary team. Nurses have a responsibility to ensure that they have the knowledge and skills to assess pain and provide effective and safe pain management. Pain

management is an essential part of good quality care to which all patients are entitled. **WE**

Key points

- **Pain is a common symptom.**
- **Pain is a subjective, personal experience.**
- **Effective pain assessment and appropriate response to the assessment improves pain management.**
- **Pain assessment is more than just obtaining a 'pain score'.**
- **Pain assessment helps determine the cause of the pain, the type of pain and the best treatments.**
- **There are many pain assessment tools for patients, including tools for patients who can communicate and for those who cannot.**

Abbey J, Piller N, De Bellis A et al (2004) The Abbey pain scale: a 1-minute numerical indicator for people with end-stage dementia. *Int J Palliat Nurs* **10:** 6–13

Bennett M (2001) The LANSS Pain Scale: the Leeds assessment of neuropathic symptoms and signs. *Pain* **92**: 147–157

Breivik H, Collett B, Ventafridda V, Cohen R, Gallacher D (2006) Survey of chronic pain in Europe: prevalence, impact on daily life, and treatment. *Euro J Pain* **10(4):** 287–333

Brown A, Bowman J, Eason R (1999) Assessment of nurses' attitudes and knowledge regarding pain management. *J Cont Edu Nurs* **30:** 132–39

Bucknall T, Manias E, Botti M (2007) Nurses' reassessment of postoperative pain after analgesic administration. *Clin J Pain* **23(1):** 1–7

Daut RL, Cleeland CS, Flanery RC (1983) Development of the Wisconsin Brief Pain Questionnaire to assess pain in cancer and other diseases. *Pain* **17:** 197–210

Feldt KS (2000) The checklist of nonverbal pain indicators (CNPI). *Pain Manage Nurs* **1(1):** 13–21

Help the Aged (2008) *Reflections and Experiences from an Older Person's Perspective*. Available at: http://www.britishpainsociety.org/book_pain_in_older_age_ID7826.pdf (accessed 15 May, 2010)

Herr K, Titler MG, Schilling ML et al (2004) Evidence-based assessment of acute pain in older adults: current nursing practices and perceived barriers. *Clin J Pain* **20:** 331–40

Hockenberry MJ, Wilson D, Winkelstein ML (2005) *Wong's Essential of Pediatric Nursing*. Seventh edn. Mosby St. Louis

International Association for the Study of Pain (IASP) (1979) International Association for the Study of Pain sub-committee on taxonomy, pain terms: a list of definitions and notes on usage. *Pain* **6(3):** 249–52

Kim HS, Schwartz-Barcott D, Tracey SM, Fortin JD, Sjostrom B (2005) Strategies of pain assessment used by nurses on surgical units. *Pain Manage Nurs* **6(1):** 3–9

Lane, P, Kuntupis M, MacDonald S et al (2003) A pain assessment tool for people with advanced Alzheimer's and other progressive dementias. *Home Healthc Nurse* **21(1):** 32–7

McCaffery M (1968) *Nursing Practice Theories Relate to Cognition, Bodily Pain and Man-Environment Interactions*. University of California at Los Angeles Students' Store, Los Angeles

O'Brien S, Dalton JA, Konsler G, Carlson J (1996) The knowledge an attitudes of experienced oncology nurses regarding the management of cancer related pain. *Oncol Nurs Forum* **23:** 515–21

RCN (2009) *The Recognition and Assessment of Pain in Children – Update of full guideline*. RCN, London

Royal College of Physicians, British Geriatrics Society and British Pain Society (2007) *The Assessment of Pain in Older People: National Guidelines. Concise guidance to good practice series*. No 8. RCP, London

Ward SE, Goldberg N, Miller-McCauley V, Mueller C, Nolan A, Pawlik-Plank D et al (1993) Patient-related barriers to management of cancer pain. *Pain* **52:** 319–24

Watt-Watson J, Stevens K, Garfinkle M, Steiner L, Gallop P (2001) Relationship between nurses' knowledge and pain management outcomes for their postoperative cardiac patients. *J Adv Nurs* **365(4):** 535–45

White C (1999) Changing pain management practice and impact on patient outcomes. *Clin Nurse Spec* **13(4):** 166–72

Wong D, Whaley L (1986) *Clinical Handbook of Pediatric Nursing*. Second edn. Mosby Company, St Louis