

BARRIERS TO PAIN MANAGEMENT IN EMERGENCY DEPARTMENTS

MARTIN DUIGNAN and VIRGINIA DUNN explore the literature to identify possible reasons for sub-optimal pain management in emergency departments

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Research shows that pain is the primary issue for more than 70 per cent of patients who present at emergency departments (EDs) (Tanabe and Buschmann 1999, Tcherny-Lessenot *et al* 2003), making it the most prevalent reason for attendance.

Although there have been many studies exploring the barriers to pain management, a recent survey by the Health Service Executive (HSE), in Ireland, found that only 60 per cent of patients presenting at EDs with pain either requested or were offered pain relief (HSE 2007). This illustrates that there are still significant barriers to comprehensive pain management in clinical practice.

This article is a review of the relevant literature on the barriers to pain management in EDs that formed the basis for a study we undertook in 2006.

This study set out to determine emergency nurses' perceptions of the barriers to pain management, and we expect to publish our findings in a subsequent article in *Emergency Nurse*.

BACKGROUND

For the purpose of the study, pain management was defined as the comprehensive process of identifying, assessing and addressing patients' pain (Crooks 2002).

Many of barriers to pain management are common to all clinical areas but some, such as lack of time, are more salient to EDs.

The Agency for Healthcare Research and Quality (2005), in the United States, divides barriers to pain management into:

- Healthcare system related
- Healthcare provider related
- Patient related.

HEALTHCARE SYSTEM RELATED BARRIERS

Many healthcare system related barriers have been identified, including lack of time and poor levels of clinician education (Bird 2005). Inadequate policy and standard setting by organisations also lead to oligoanalgesia, the sub-optimal use of analgesics, in EDs.

Lack of time

Lack of time is documented as an issue for emergency nurses that may contribute to oligoanalgesia (Collins 1999, Ehrenberg 2001). Indeed, lack of time is the most frequently cited barrier to effective pain management (Schafheutle *et al* 2001).

Hwang *et al* (2006) suggest that, during periods of high ED attendance, staff are likely to be less attentive and responsive to complaints of painful conditions, especially when managing patients who are vulnerable and therefore unable to advocate for their own care.

In this study by Hwang *et al* a significant association between ED overcrowding, as measured according to ED census levels greater than 120 per cent bed capacity, and poorer pain management is found.

However, while it is indisputable that EDs operate in a climate of staff shortages and increasing workload, there is evidence to suggest that nurses prioritise physical issues when caring for patients and attribute lower priority to aspects of care such as pain management.

A study by Wood (1979) for example uses a structured observational research design to show that emergency nurses spend only brief amounts of time interacting with patients and prioritise physical care over more subjective measurements.

This is supported by Walsh and Dolan (1999), who find that emergency nurses view psychological and holistic dimensions of caring as less important than do nurses from general wards.

It is further reinforced by Byrne and Heyman's (1997) assertion that emergency nurses think that the more time they spend with any one patient the less time there is available for others.

Emergency nurses also perceive that they must concentrate on transferring patients through departments quickly rather than on spending time talking with them (Byrne and Heyman 1997).

Nurses' knowledge

Deficits in nurses' knowledge about pain and its management are also cited extensively in the literature as contributing to oligoanalgesia (Bell

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2002, Horbury *et al* 2005, Kohr and Sawhney 2005, Twycross 2002).

Jastrzab *et al* (2003) for example used a questionnaire to ascertain levels of knowledge of analgesia among 272 nurses at a large teaching hospital in Sydney.

The authors found that emergency nurses scored an average of 61 per cent correct answers, which they considered 'moderate'. They also found that younger, less experienced nurses are more knowledgeable than their colleagues. Nurses demonstrated least knowledge about pharmacological management, with a correct answer rate of 51 per cent.

These findings are supported by Horbury *et al* (2005), whose study aimed to assess nurses' intention to treat different patients' pain. Using a questionnaire comprising eight vignettes, their study revealed that 60 per cent of the 221 nurses in the study selected options that would have resulted in patients' pain continuing or worsening.

Another study, by Innis *et al* (2004), employed McCaffery's Nurses' Knowledge and Attitudes Survey Regarding Pain to assess the level of knowledge among 93 nurses before and after an in-service lecture on pain assessment and management. The mean correct response before the lecture was 59 per cent, which increased to 71 per cent afterwards.

Wallace *et al* (1995) suggest that inadequate knowledge remains a significant barrier to pain management because clinicians fail to recognise their own knowledge deficit and therefore also the need for change.

There is evidence to suggest that knowledge deficit as a barrier to pain management is attributable to lack of educational preparation.

Ferrell *et al* (2000), in a study of nursing textbooks, including those concerning health care in the UK, find that only 0.5 per cent of the total content is devoted to pain. This is supported by Wallace *et al* (1995), who found that almost 75 per cent of their study's participants claimed that they had been prepared inadequately in the use of analgesics.

Despite this, attempts to improve knowledge have not produced corresponding changes in pain management (Brockopp *et al* 1998).

Regulatory issues

Rupp and Delaney (2004) state that organisations must adopt strategies that prioritise pain management. Included in such strategies should be:

- Mandatory pain assessments
- Ongoing education for patients and clinicians
- In-built, ongoing evaluation of the strategies.

Such strategies include:

- The pain assessment standards published by the Joint Commission on Accreditation of Health Care Organizations (JCAHO 2001), in the US
- Musculoskeletal pain management guidelines published by the National Health and Medical Research Council (2003), in Australia
- Recent guidelines published by the British Association for Accident and Emergency Medicine (2007).

In the US, regulatory barriers such as affordability and restrictive prescribing laws are identified as barriers to pain and symptom management (Gee and Fins 2003).

Fear of regulatory scrutiny is also cited as a contributory factor in inadequate prescribing and poor pain management practice (Joranson and Gilson 1998).

HEALTHCARE PROVIDER RELATED BARRIERS

Staff attitudes

The literature recognizes that, due to the subjective nature of pain, healthcare professionals' attitudes and beliefs can contribute to under-treatment. This can happen when clinicians make pain management decisions for patients based on their own beliefs and do not accept patients' self reporting as the 'gold standard' (Lipley 2002, McCaffery *et al* 2000, Nash *et al* 1999, Pasero and McCaffery 2001).

Nash *et al* (1999) used focus based interviews with 19 participants to ascertain that nurses' attitudes and beliefs affected pain, pain management and their administration of analgesia, particularly opiates.

Their study reveals a range of erroneous beliefs, for example that smaller patients need less analgesia, that terminally ill patients should have more analgesia, and that patients should not use opioids within 24 hours of discharge. This is supported by Fosnocht *et al* (2005), who found that attitudes to pain management among clinicians can affect pain treatment in EDs enormously.

Beliefs about analgesia

The World Health Organization (1986) reports that the most significant barrier to pain relief among people with cancer is fear among the public, patients, healthcare professionals, legislators and drug administrators of opioid addiction. This has led to the phrase 'opiophobia', which describes an irrational fear of opioids even when they are prescribed to treat pain (Furrow 2001, McCaffery *et al* 1990).

Drayer *et al* (1999) also find that the most frequent reason that medication is not prescribed

or wanted is fear of addiction. Their study used a numeric rating scale and interviews to assess pain among 50 patients and the attitudes of the nurses and doctors caring for them.

One of the healthcare professional interviewees spontaneously mentioned that fear of addiction was a reason for withholding analgesia from 11 of the 50 patients. These findings are supported by two studies; Cowan *et al* (2004) comment that misconceptions about pain control results in under treatment of pain while Rupp and Delaney (2004) suggest that an excessive tendency to relate requests for analgesia to drug seeking behaviour contributes to oligoanalgesia.

A further common cause of under-treated pain in EDs is a belief that analgesia masks clinical signs, which can lead to poorer patient outcome (Brewster *et al* 2000, Thomas *et al* 2003, Vermeulen *et al* 1999, Wolfe *et al* 2000).

A survey into emergency doctors' beliefs for example finds that more than three quarters withhold opiate analgesia until surgical review is undertaken (Wolfe *et al* 2000).

Conversely though, Nissman *et al* (2004) suggest that analgesia is not withheld before surgical evaluation.

Their study found that, of 60 emergency doctors who responded to a telephone survey, 59 said that they administered analgesia before surgical review.

Two randomised controlled trials to assess the effect of early analgesia on abdominal pain (Thomas *et al* 2003, Vermeulen *et al* 1999) demonstrate that analgesia is safe and does not hamper diagnosis. This is significant in view of a study by Yee *et al* (2006), which showed that almost half of the patients surveyed wanted a complete resolution of their abdominal pain after presentation at the ED.

Under-assessment of pain

Good pain assessment is essential for good pain management but studies comparing clinician assessment with patients' actual pain ratings frequently confirm that clinicians underestimate levels of pain (Gunnarsdottir *et al* 2003, Zalon 1993).

In an article about the JCAHO's pain management standards, Curtiss (2001) identifies the most powerful predictor of poor pain management as the discrepancy between patients' and clinicians' perceptions of pain.

References

- Agency for Healthcare Research and Quality** (2005) *Management of Cancer Symptoms: Pain, depression and fatigue*. www.ahrq.gov/downloads/pub/evidence/pdf/cansymp/cansymp.pdf (Last accessed February 5 2008).
- Bell G** (2002) Lack of pain management. *American Journal of Nursing*. 102, 1, 13-14.
- Bird J** (2005) Assessing pain in older people. *Nursing Standard*. 19, 19, 45-54.
- Brewster GS, Herbert ME, Hoffman JR** (2000) Medical myth: analgesia should not be given to patients with an acute abdomen because it obscures the diagnosis. *Western Journal of Medicine*. 172, 3, 209-211.
- British Association for Accident and Emergency Medicine** (2007) *Clinical Effectiveness Committee Audit Standards for Emergency Departments*. www.emergencymed.org.uk/BAEM/CEC/assets/Summary_of_standards_Jan07_(2nd_draft).pdf (Last accessed February 5 2008).
- Brockopp DY, Brockopp G, Warden S, Wilson J, Carpenter JS, Vandevener B** (1998) Barriers to change: a pain management project. *International Journal of Nursing Studies*. 35, 4, 226-232.
- Byrne G, Heyman R** (1997) Understanding nurses' communication with patients in accident & emergency departments using a symbolic interactionist perspective. *Journal of Advanced Nursing*. 26, 1, 93-100.
- Collins PM** (1999) Improving pain management in your healthcare organization. *Journal of Quality Care*. 13, 4, 73-82.
- Cowan DT, White A, Griffiths P** (2004) Use of strong opioids for non-cancer pain in the community: a case study. *British Journal of Nursing*. 9, 2, 53-58.
- Crooks LK** (2002) Assessing pain and the Joint Commission pain standards. *Topics in Emergency Medicine*. 24, 1, 1-9.
- Curtiss CP** (2001) Meeting the standards for pain management. *Orthopedic Nursing*. 20, 2, 27-35.
- Drayer RA, Henderson J, Reidenberg M** (1999) Barriers to better pain control in hospitalized patients. *Journal of Pain and Symptom Management*. 17, 6, 434-440.
- Eager R, Barton D** (2003) Alcohol and drug use amongst young attenders to A&E. *Irish Medical Journal*. 96, 10, 311-312.
- Ehrenberg A** (2001) Nurses' perceptions and practice concerning patients records. *Vard I Norden: Nursing science and research in the Nordic countries*. 59, supplement 1, 9-14.
- Ferrell BR, Virani R, Grant M, Juarez G** (2000) Analysis of pain content in nursing textbooks. *Journal of Pain and Symptom Management*. 19, 3, 216-228.
- Fosnocht DE, Swanson ER, Barton ED** (2005) Changing attitudes about pain control in the emergency department. *Emergency Medicine Clinics of North America*. 23, 2, 297-306.
- Furrow BR** (2001) Pain management and provider liability, no more excuses. *Journal of Law and Medical Ethics*. 29, 1, 31-51.
- Gee RE, Fins JJ** (2003) Barriers to pain and symptom management, opioids, health policy, and drug benefits. *Journal of Pain and Symptom Management*. 25, 2, 101-102.
- Gunnarsdottir S, Donovan HS, Serlin RC, Voge C, Ward S** (2002) Patient-related barriers to pain management: the barriers questionnaire II. *Pain*. 99, 3, 385-396.

Further evidence of this discrepancy can be found in Puntillo *et al*'s (2003) work, in which emergency nurses' assessment of their patients' pain intensity and patients' self reports were compared.

Puntillo *et al*'s (2003) study, of 156 patients and 37 nurses, notes poor levels of assessment of pain intensity both at triage and in the clinical area.

Concordance between nurses' and patients' pain intensity assessment, signified by nurses' pain intensity scores using a numeric rating scale being within a point of those of the patients, was 50 per cent or less.

Sloman *et al* (2005) also find significant pain underestimation by nurses. Their study, which involved 95 nurses and 95 patients, finds that nurses significantly under-rated pain sensation, pain effect, pain both at rest and on movement, and overall pain intensity.

Oligoanalgesia may also exist because of misconceptions about who the authorities on patients' pain are (Hunter 2000).

Clarifying this, Pasero and McCaffery (2001) state that, because pain cannot be proved or disproved, patients' reports should be accepted as the gold standard and take precedence over their behaviour and vital signs.

PATIENT RELATED BARRIERS

Barriers to effective pain management related to patients are usually attitudinal and based on misconceptions about pain and its management (Gunnarsdottir *et al* 2002, Ward *et al* 1993). They may be propagated by society's traditional view that suffering is 'noble'; while the stoicism of those who suffer in silence is admired, disdain is shown for those whose suffering is apparent (Brockopp *et al* 1998).

Gunnarsdottir *et al* (2005) recruited a convenience sample of 244 people from the general population of Iceland to determine the prevalent barriers to effective pain management among patients. Using a questionnaire with 27 questions, the authors found that patient related barriers can be categorised into:

- Fear of consequences, including fears that analgesics will harm the immune system, that patients will develop a tolerance to the effects of analgesics, and that they will be unaware of changes in their own bodies when using analgesics
- Fatalism, including the anecdotal belief that, because pain can aid diagnosis, it must be therapeutic
- Communication fear, including fears that reporting pain will distract clinicians from treating underlying disease and that 'good' patients do not talk about pain.

Gunnarsdottir S, Donovan HS, Ward S (2003) Interventions to overcome clinician- and patient-related barriers to pain management. *The Nursing Clinics of North America*. 38, 3, 419-434.

Gunnarsdottir S, Serlin RC, Ward S (2005) Patient-related barriers to pain management: the Icelandic barriers questionnaire II. *Journal of Pain and Symptom Management*. 29, 3, 273-285.

Health Service Executive (2007) *HSE Emergency Departments: Patient profiles, experiences and perceptions*. Consumer Affairs Department, Kildare.

Horbury C, Henderson A, Bromley B (2005) Influences of patient behaviour on clinical nurses' pain assessment: implications for continuing education. *The Journal of Continuing Education in Nursing*. 36, 1, 18-25.

Hunter S (2000) Determination of moral negligence in the context of the undermedication of pain by nurses. *Nursing Ethics*. 7, 5, 379-391.

Hwang U, Richardson L, Sonuyi TO, Morrison RS (2006) The effect of emergency department crowding on the management of pain in older adults with hip fracture. *Journal of the American Geriatrics Society*. 54, 2, 270-275.

Innis J, Bikaunieks N, Petryshen P, Zellermeier V, Ciccarella L (2004) Patient satisfaction and pain management: an educational approach. *Journal of Nursing Care Quality*. 19, 4, 322-327.

Jastrzab G, Fairbrother G, Kerr S, McInerney M (2003) Profiling the pain aware nurse, acute care nurses' attitudes and knowledge concerning adult pain management. *Australian Journal of Advanced Nursing*. 21, 2, 27-33.

Joint Commission on Accreditation of Health Care Organizations (2001) *Revised Pain Management Standards*. www.jointcommission.org/standards/ (Last accessed February 1 2008).

Joranson DE, Gilson AM (1998) Regulatory barriers to pain management. *Seminars in Oncology Nursing*. 14, 2, 158-163.

Kohr R, Sawhney M (2005) Advanced practice nurses' role in the treatment of pain. *Canadian Nurse*. 101, 3, 30-34.

Lin CC (2000) Barriers to the analgesic management of cancer pain, a comparison of attitudes of Taiwanese patients and their family caregivers. *Pain*. 88, 1, 7-14.

Lipley N (2002) Painful lessons. *Emergency Nurse*. 10, 1, 5.

McCaffery M, Ferrell B, O'Neil-Page E, Lester M, Ferrell B (1990) Nurses' knowledge of opioid analgesic drugs and psychological dependence. *Cancer Nursing*. 13, 1, 21-27.

McCaffery M, Rolling-Ferrell B, Pasero C (2000) Nurses' personal opinions about patients' pain and their effect on recording assessments and titration of opioid doses. *Pain Management Nursing*. 1, 3, 79-87.

Nash R, Yates P, Edwards H *et al* (1999) Pain and the administration of analgesia: what nurses say. *Journal of Clinical Nursing*. 8, 2, 180-189.

National Health and Medical Research Council (2003) *Evidence-based Management of Acute Musculoskeletal Pain*. www.nhmrc.gov.au/publications/synopses/_files/cp94.pdf (Last accessed February 1 2008).

Nissman SA, Kaplan LJ, Mann BD (2004) Critically reappraising the literature-driven practice of analgesia administration for acute abdominal pain in the emergency room prior to surgical evaluation. *Annals of Emergency Medicine*. 43, 1, 143.

O'Farrell A, Allwright S, Downey J, Bedford D, Howell F (2004) The burden of alcohol misuse on emergency in-patient hospital admissions among residents from a health board region in Ireland. *Addiction*. 99, 10, 1279.

These findings support those of Lin's (2000) study of patients and their primary caregivers, which suggests that patient barriers correlate with those of their primary caregivers. Meanwhile, Ward *et al* (1993), who examined unrelieved pain among cancer patients, note that another barrier to effective pain management involves patients' belief about reporting and using analgesics.

Five years later, Ward *et al* (1998) published further research, this time into the extent to which patients have concerns about reporting pain and using analgesics, and find that older participants, and participants with lower levels of education, have higher levels of concern. They recommend that, not only should patients be taught about how erroneous some beliefs such as those about addiction are, but also about coping with the side effects of analgesia.

Alcohol and drugs

The use of alcohol or drugs by patients attending EDs is a further barrier to pain management that can impair patients' ability to provide accurate histories and impede clinicians' ability to assess pain accurately. Several studies highlight the incidence of alcohol and drug use among ED attenders in Ireland.

A review of hospital admissions by O'Farrell *et al* (2004), for example, finds an 80 per cent increase in the number of acute alcohol intoxication admissions in Ireland between 1997 and 2001.

Meanwhile, Eager and Barton (2003) undertook a prospective study over three months to identify alcohol and drug use among young ED attenders and found that drug use was related to 1.4 per cent of attendances.

The authors acknowledge however that this is probably an underestimate because they excluded presentations where substance abuse was viewed as a contributing rather than a causative factor.

CONCLUSION

This literature review has identified several factors that place constraints on nurses' ability to manage patients' pain effectively. These factors comprise barriers that nurses themselves identify and acknowledge, and can be categorised as healthcare system, healthcare provider and patient related.

While this article is not exhaustive in its exploration of these factors, it describes how they can be identified, and challenges emergency nurses to examine barriers to pain relief in their own practices.

References

- Pasero C, McCaffery M** (2001) The patient's report of pain: believing vs. accepting. There's a big difference. *American Journal of Nursing*. 101, 12, 73-74.
- Puntillo K, Neighbor M, O'Neil N, Nixon R** (2003) Accuracy of emergency nurses in assessment of patients' pain. *Pain Management Nursing*. 4, 4, 171-175.
- Rupp T, Delaney KA** (2004) Inadequate analgesia in the emergency medicine. *Annals of Emergency Medicine*. 43, 4, 494-503.
- Schafheutle EI, Cantrill JA, Noyce PR** (2001) Why is pain management suboptimal on surgical wards? *Journal of Advanced Nursing*. 33, 6, 728-737.
- Sloman R, Rosen G, Rom M, Shir Y** (2005) Nurses assessment of pain in surgical patients. *Journal of Advanced Nursing*. 52, 2, 125-132.
- Tanabe P, Buschmann M** (1999) A prospective study of ED pain management practices and the patient's perspective. *Journal of Emergency Nursing*. 25, 3, 171-177.
- Tcherny-Lessenot S, Karwowski-Soulie F, Lamarche-Vadel A, Ginsberg C, Brunet F, Vidal-Trecan G** (2003) Management and relief of pain in an emergency department from the adult patient's perspective. *Journal of Pain and Symptom Management*. 25, Supplement 2, 539-546.
- Thomas SH, Silen W, Cheema F et al** (2003) Effects of morphine analgesia on diagnostic accuracy in emergency department patients with abdominal pain: a prospective, randomized trial. *Journal of the American College of Surgeons*. 196, 1, 18-31.
- Twycross A** (2002) Educating nurses about pain management: the way forward. *Journal of Clinical Nursing*. 11, 6, 705-714.
- Vermeulen B, Morabia A, Unger PF** (1999) Acute appendicitis: influence of early pain relief on the accuracy of clinical and US findings in the decision to operate. A randomised trial. *Radiology*. 210, 3, 639-643.
- Wallace KG, Reed BA, Pasero C, Olsson GL** (1995) Staff nurses perceptions of barriers to effective pain management. *Journal of Pain and Symptom Management*. 10, 3, 204-213.
- Walsh M, Dolan B** (1999) Emergency nurses and their perception of caring. *Emergency Nurse*. 7, 4, 24-31.
- Ward S, Goldberg N, Miller-McAuley V et al** (1993) Patient-related barriers to management of cancer pain. *Pain*. 52, 3, 319-324.
- Ward SE, Carlson-Dakes K, Hughes SH, Kwekkeboom KL, Donovan HS** (1998) The impact on quality of life of patient-related barriers to pain management. *Research in Nursing and Health*. 21, 5, 405-413.
- Wolfe JM, Lien D, Lenkoski C, Smithline HA** (2000) Analgesic administration to patients with acute abdomen, a survey of emergency medicine physicians. *American Journal of Emergency Medicine*. 18, 3, 250-253.
- Wood KM** (1979) *Nurse-Patient Communication in an Accident Department*. Unpublished thesis. Manchester University.
- World Health Organization** (1986) *Cancer Pain Relief*. WHO, Geneva.
- Yee AM, Puntillo K, Miaskowski C, Neighbor ML** (2006) What patients with abdominal pain expect about pain relief in the emergency department. *Journal of Emergency Nursing*. 32, 4, 281-287
- Zalon MB** (1993) Nurses' assessment of postoperative patients' pain. *Pain*. 54, 3, 329-334.