



Title	The 'fifth vital sign'
Author(s)	Yuen, TST; Irwin, MG
Citation	Hong Kong Medical Journal, 2005, v. 11 n. 3, p. 145-146
Issued Date	2005
URL	http://hdl.handle.net/10722/44555
Rights	Creative Commons: Attribution 3.0 Hong Kong License

The 'fifth vital sign'

Clinical medical practitioners face illness, disability, and suffering every day. We try to abide by the Hippocratic Oath and we know that a tender, compassionate, and holistic approach is essential for successful patient management. We should not merely treat symptoms, but also attempt to understand the impact of the symptom or disease on the patient.

Pain is one of the most common symptoms, regardless of the specialty in which a patient is being treated. It should be routinely evaluated and recorded in daily clinical examination. In fact, pain has been promulgated as the 'fifth vital sign',¹ in addition to the four traditional vital signs of temperature, pulse, blood pressure, and respiratory rate. As well as improving patient comfort and satisfaction, effective pain management can speed mobilisation after surgery, shorten hospital stay, and reduce costs.²⁻⁵ However, pain is a subjective perception and, therefore, difficult to quantify. For acute postoperative pain, simple measures such as the visual analogue score, numerical rating scale, or categorical scale have all proven to be of similar accuracy, and most patients can grasp the concept well enough to provide reliable self-reporting. For chronic pain, comprehensive and multidimensional measures such as the Brief Pain Inventory of Wisconsin and the McGill Pain Questionnaire have been developed to reflect the sensory, affective, and functional impairment that is often a consequence of chronic pain conditions.⁶ Over the years, a number of more specific pain assessment tools have been developed for neuropathic pain, back pain, etc.^{7,8} To measure the degree of 'quality of life' impairment, validated assessment tools are available for specific diseases. Examples include the short-form health survey (SF-36) for non-cancer pain patients, discussed by Lee et al⁹ in this issue, and the European Organisation for Research and Treatment of Cancer (EORTC) questionnaires on cancer pain.¹⁰ Such scoring systems are important and reflect the need for a high degree of sensitivity in order to provide adequate response and treatment.

Pain can be complex and reflect numerous interacting aetiologies. Although from a clinical point of view, it is convenient to classify pain into nociceptive, neuropathic, psychogenic, and behavioural categories, in reality, it is difficult and sometimes unnecessary to delineate the various components of pain. In many cases, such delineation can be further influenced, and

complicated by, ongoing litigation and unsettled compensation claims. Instead, it is probably best to think of one common outcome indicator for treating chronic pain, independent of aetiology: quality of life and functional status. It is the patient's own performance and satisfaction in daily living that really counts.

Despite recent research that has led to tremendous advances in the understanding of pain mechanisms, and the advent of new drugs and clinical techniques, our ability to control pain is still unsatisfactory for many reasons. Firstly, the beliefs and attitudes of many health care providers: traditional medical teaching tends to ascribe a symptom to a 'tangible' pathology for which a specific treatment or therapeutic option exists. For chronic pain patients, the 'tangible' pathology may not exist, or the manifestation of pain may simply be out of proportion to what is expected. Health care providers, may, therefore prescribe analgesia according to their own standards, and not the patients'. An example would be prescribing placebo injections to cancer pain patients requiring large doses of opioids for pain relief. Secondly, there are unsubstantiated beliefs about the side-effects of many analgesics. For example, morphine or methadone prescription for cancer pain is often 'rejected' because of misguided perceptions about drug addiction or abuse. Thirdly, many useful analgesics are not used to their maximum efficacy, but are abandoned prematurely for various reasons. An example would be constipation after opioid prescription without having tried concomitant use of laxatives. Another important factor contributing to undertreatment is that pain is 'invisible' in some hospital wards: pain severity is simply not assessed, and patients are reluctant to complain as they consider severe pain to be an inevitable consequence of surgery.

Chronic pain is a disease. Unlike acute pain, which alerts and reminds the body of a physical injury, the suffering generated from the chronicity of pain has no such functional role but can severely hinder a patient's physical and psychological well-being. Local data in Hong Kong show a prevalence of 10.8% of the population suffering from chronic pain, defined as pain duration of more than 3 months.¹¹ If only 10% of these patients presented to health care practitioners, this would amount to about 70 000 people. This situation has a potentially significant impact on the overall productivity of Hong Kong as well as a financial impact on the health care system.

Anaesthesiologists, by virtue of the nature of their work in the operating theatre and knowledge of applied pharmacology, are in the best position to instigate postoperative acute pain management. Many anaesthesiologists also have expertise in performing various nerve blocks, and consequently, anaesthesiology has evolved into the primary field specialising in the research and treatment of chronic pain. Numerous 'pain clinics' have been established in Hong Kong over the past 10 years that take referrals from both primary care physicians and other specialists. Individual centres have evolved to provide multidisciplinary pain management for complicated cases. The introduction of cognitive behavioural therapy programmes for chronic pain patients is a recent achievement in the development of pain services. Interventional procedures are another important option for chronic pain that is resistant to conservative therapy. Such procedures vary in complexity, for examples, simple "trigger point" injections for myofascial pain syndrome, facet joint injections for degenerative back pain, coeliac plexus blocks for inoperative and intractable pain from carcinoma of the pancreas, and, in collaboration with neurosurgeons, implantation of intrathecal pumps and neurostimulators for various cancer and non-cancer pain syndromes.

Fortunately, anaesthesiologists are not and should not be alone in treating pain. The achievement of effective pain control and delivery must be recognised and shared by all medical practitioners. Multidisciplinary pain centres incorporate clinicians, nurse pain specialists, physical and occupational therapists, clinical psychologists, psychiatrists, social workers, and other health care professionals. These joint efforts have resulted in remarkable improvements in the development of treatment plans for many problematic and complicated cases. Patients with psychosomatic disorders, for example, often present with multiple unaccountable somatic complaints, including pain. A single clinician may be confused by such a patient's complicated and sometimes conflicting history and physical examinations. With the advent of the multidisciplinary pain management team and a realistic treatment plan, multiple unnecessary referrals, investigations, duplication of prescriptions, and wastage of resources can be avoided.

Patients with chronic pain in Hong Kong are in the unique position of being able to draw on the best quality treatment from both western and Chinese medicine. Traditional Chinese herbal medicine, acupuncture, and other 'alternative' medicines certainly have a role in the treatment of pain. Pain clinics combining the

expertise of these disciplines have already been established in some public hospitals. We see this as a positive development and anticipate further collaboration with traditional Chinese medicine practitioners in this regard. The Hong Kong College of Anaesthesiologists has set up a post-fellowship qualification, the 'Diploma in Pain Management'. This is a quotable qualification with the Medical Council of Hong Kong. Qualification as Pain Specialist, however, has still not been accredited by the Hong Kong Academy of Medicine. In many western countries, qualification as a pain specialist is recognised by either national or state medical boards, and various specialties can enrol in the training programme. As pain medicine is a cross-specialty science, we envision a future in which accredited local pain specialists originating from neurosurgery, clinical psychology, psychiatry, and others, join anaesthesiologists to tackle the many challenges of pain medicine.

TST Yuen, Dip Pain Mgt, FHKAM (Anaesthesiology)

MG Irwin, MD, FHKAM (Anaesthesiology)

(e-mail: mgirwin@hkucc.hku.hk)

Department of Anaesthesiology

University of Hong Kong

Queen Mary Hospital, Pokfulam Road, Hong Kong

References

1. Resolving adverse accreditation decisions. *Jt Comm Perspect* 1999;19:6.
2. Eisenach JC, Grice SC, Dewan DM. Patient-controlled analgesia following cesarean section: a comparison with epidural and intramuscular narcotics. *Anesthesiology* 1988;68:444-8.
3. Harrison DM, Sinatra R, Morgese L, Chung JH. Epidural narcotic and patient-controlled analgesia for post-cesarean section pain relief. *Anesthesiology* 1988;68:454-7.
4. Miaskowski C, Crews J, Ready LB, Paul SM, Ginsberg B. Anesthesia-based pain services improve the quality of postoperative pain management. *Pain* 1999;80:23-9.
5. Acute pain management: scientific evidence. Australian and New Zealand College of Anaesthetists. Consultation draft—8 November 2004. ANZCA website: <http://www.anzca.edu.au/publications/acutepain.htm>. Accessed 9 May 05.
6. Melzack R. The short-form McGill Pain Questionnaire. *Pain* 1987;30:191-7.
7. Krause SJ, Backonja MM. Development of a neuropathic pain questionnaire. *Clin J Pain* 2003;19:306-15.
8. Fairbank JC, Couper J, Davis JB, O'Brien JP. The Oswestry low back pain disability questionnaire. *Physiotherapy* 1980;66:271-3.
9. Lee S, Chen PP, Lee A, Ma M, Wong CM, Gin T. A prospective evaluation of health-related quality of life in Hong Kong Chinese patients with chronic non-cancer pain. *Hong Kong Med J* 2005;11:174-80.
10. European Organisation for Research and Treatment of Cancer (EORTC) website: <http://www.eortc.be>. Accessed May 05.
11. Ng KF, Tsui SL, Chan WS. Prevalence of common chronic pain in Hong Kong adults. *Clin J Pain* 2002;18:275-81.