2011 – The Global Year Against Acute Pain

The International Association for the Study of Pain (IASP) is the leading professional forum for science, practice and education in the field of pain. The IASP was the idea of John J. Bonica and first incorporated in 1974. It now has over 7500 members and publishes the journal *Pain*, which, remarkably, is the highest ranked journal in our specialty, anaesthesiology, with an impact factor of 5.371 in 2009.

One of the major activities of IASP is to sponsor and promote the Global Year, aimed at increasing worldwide awareness of different aspects of pain. The campaign started at the end of 2004 and the topic of the first Global Year Against Pain was the “Right to Pain Relief”, instigated and widely promoted by Professor Michael Cousins from Sydney. Since then, Global Years have focussed on pain in specific groups such as children, older persons or women and, in the most recent year, on specific aspects of chronic pain such as cancer pain and musculoskeletal pain.

In October 2010, the IASP launched the Global Year Against Acute Pain. This decision has rather important implications, as acute pain is not some complex disease left to specialists in chronic pain management, but a situation all medical professionals encounter regularly in their day-to-day practice and are asked to resolve. This is particularly true for anaesthetists, who have to deal daily with the most common manifestation of acute pain, postoperative pain. Acute pain is also the result of childbirth and related procedures and, again, anaesthetists are in the front line of treating pain in these situations. It is therefore appropriate that the Journal of the Australian Society of Anaesthetists, *Anaesthesia and Intensive Care*, has invited me as the Co-Chair of the IASP Taskforce for this Global Year, to provide this editorial. The Journal will also publish several review articles on aspects of the anaesthetist’s role in the treatment and prevention of acute pain in the coming months.

The motto of the Global Year Against Acute Pain is “Anticipate, Assess, Alleviate”. This motto highlights three key approaches to the management of acute pain. Anticipation of a situation which will induce acute pain, such as a certain operation or procedure, should lead to planning of pain relieving measures and implementation of appropriate techniques. The regular assessment of acute pain leads to improvement of pain management; therefore, self-reporting should be used whenever possible, as pain is by its definition a subjective sensory and emotional experience. The need for appropriate assessment of acute pain has been validated by the campaign promoting pain as the fifth vital sign, which began in 2000 with pain assessment becoming a mandatory pre-requisite for the accreditation of American hospitals with the Joint Commission. Today, pain is documented as a fifth vital sign in most hospitals in Australia and the campaign has reached less developed countries, as I witnessed only a few months ago at the Annual Scientific Meeting of the Indonesian Pain Society in Yogyakarta. Alleviating acute pain is the ultimate goal.

Acute pain is usually a nociceptive pain caused by signalling as a consequence of mechanical, thermal and chemical (noxious) irritation of the peripheral nervous system. It is amplified by peripheral sensitisation due to inflammatory processes and by central sensitisation in the spinal cord and brain. In principle, acute pain warns of impending or actual tissue damage and thereby fulfils a biological function in reducing the risk of tissue injury and encouraging protective behaviour to promote tissue healing. However, in medical settings such as the recovery period from surgery, the stay in an emergency department or while undergoing interventions and procedures, acute pain loses its warning function, is not useful but distressing to the patient and can lead to impairment of outcome including increase of morbidity and mortality.

One of the most important findings in the research on acute pain is the recognition that ‘simple’ acute pain leads within minutes to a sensitisation of the central nervous system, which has consequences for the options of treatment of this pain, but also for the long-term outcome. It is, therefore, incorrect to assume that sensitisation is only the result of neuropathic pain states or persistent irritation of the central nervous system as in chronic pain. This recognition has lead to the increasing importance of therapeutic interventions such as use of the NMDA antagonist ketamine or the alpha-2-delta modulators gabapentin and pregabalin in the perioperative setting, which were initially exclusively targeted to the treatment of neuropathic pain states. In this
context it is remarkable that the surgeon George Crile published a paper in *The Lancet* in 1913 that concluded, “pain can cause ‘scars’ in the central nervous system if the noxious stimuli of surgery have unsuppressed access to this system”.

Acute pain is common; it occurs in around 80% of patients after surgery and is a reason for attendance at an emergency department in 70% of cases. Unrelied acute pain in a medical setting results in discomfort and suffering of the individual patient and this is, by itself, a very good reason to treat this pain. However, severe unrelied acute pain also has other consequences. Increased sympathetic tone leads to a stress response with hypertension and tachycardia, the increased risk of thrombotic complications and delayed wound healing due to a catabolic metabolism. In addition, acute pain can lead to shallow ventilation with subsequent hypoxaemia, atelectasis and postoperative pneumonia. Besides these physiological consequences, acute unrelied pain also has psychological consequences, which can extend from disturbed sleep, fear and anxiety to suffering and manifestation of post-traumatic stress disorder. Other patient-related consequences are poor sleep, low patient autonomy and delayed mobilisation. Unrelied acute pain can lead to delayed transfer from intensive care or high dependency units, delayed discharge from hospital, unplanned readmission (often after day case surgery), increased complications and delayed return to normal function and life. Last, but not least, unrelied severe acute pain is a major predictor for the development of chronic pain after surgery and trauma. Therefore, appropriate and individualised treatment of acute pain offers significant benefits not only with regard to quality of life and satisfaction of our patients, but also with regard to long-term consequences and economic implications.

The management of acute pain has an excellent scientific basis and the leading role our part of the world has played in documenting this basis has been highlighted by the IASP: “The Australian and New Zealand College of Anaesthetists (ANZCA) has published a document with the most up-to-date science and practice on acute pain management. This world-leading document endorsed by the NHRMC, IASP and many national and international bodies provides the scientific evidence for the practice of acute pain management.”

Anybody who has followed the development of this document from its first edition in 1999 to the current third edition published in 2010 will have noticed the rapid increase in knowledge over the last 11 years. A simple measure of this growth of evidence is the number of key messages. The 1999 edition had overall 34 Level I, II and III key messages, the 2005 edition 108 Level I key messages alone, and the current edition 190 Level I key messages. With such excellent evidence available, the question remains why acute pain in 2011 continues to be poorly managed. We know about the efficacy of many of the medications we use, the best modes to deliver these medications including by regional techniques, and we value the importance of individualised care for each patient and the important factors to consider in the clinical setting of the individual practitioner. Nevertheless, data show widespread under-assessment and undertreatment of acute pain in all relevant settings, not only in the developing, but also in the developed world. Even in Australia, we know of patients who receive an inappropriate opioid (pethidine) by an inappropriate route of administration (intra-muscularly) in inappropriately standardised doses (100 mg) at inappropriate dosing intervals (pro re nata four hourly) as the only option for postoperative pain relief.

The obvious reasons can only be major gaps between evidence and practice. These gaps are also found in many other health care settings, and are the result of general barriers to the implementation of evidence-based and outcomes-driven practice. Such barriers include, in particular, what is commonly described as ‘clinical inertia’, meaning widespread slowness in updating clinical practice in view of evidence available. Other barriers are the application of the results of randomised controlled trials on individual patients without consideration of interindividual variability and preferences and the clinical setting in which an individual doctor practices.

However, and possibly more importantly, many barriers which prevent the desirable management of acute pain, have to do with the ‘mythology’ of pain itself, the lack of appreciation of the importance to control it and traditional belief systems, which remind me often of religion more than of science. Typical issues in this context are the belief that treatment of acute pain hinders diagnosis of surgical disease or postoperative complications, that surgery is necessarily linked to enduring pain and that patients who express their desire to have better pain controls are ‘complainers’ or ‘opioid-seeking’. Opiophobia among healthcare professionals, but also in patients and their significant others, cannot only influence individual treatment decisions but leads in many countries, in particular in the developing world, to severe regulatory impediments to opioid use. Any campaign to improve management of acute pain...
has therefore not only to address healthcare professionals, but to empower patients and to challenge those who run healthcare systems and educate our future healthcare professionals. With regard to patients and the general public, not only does the issue of opioidophobia need to be addressed, but also widespread beliefs, particularly in some cultures, that ‘good patients’ do not complain about pain and should be satisfied with inadequate pain control in gratitude to the healthcare professionals who provided their care. In this context, it is also of note that groups such as patients with cancer pain or with chronic pain of non-malignant origin such as fibromyalgia have now excellent support and lobby groups, which are unlikely ever to develop in acute pain settings due to the short-lived nature of acute pain.

With regard to healthcare systems, education about acute pain in the curricula of many medical schools continues to be insufficient. While pain is the most common complaint of a patient who sees a doctor, treatment of even simple acute pain is often neglected in the training of healthcare professionals. Furthermore, healthcare systems fail with regard to acute pain management by attaching low priorities and low values to the provision of acute pain management, by providing inadequate infrastructure to deliver techniques of acute pain management and by underfunding of treatment systems and research aiming at the assessment and management of acute pain.

What can we, as anaesthetists, do to implement a change in the management of acute pain? I personally think that first and foremost, every anaesthetist has to accept the challenge to improve acute pain management in the patients under his or her care. We are the experts here as already put so eloquently by Brian Ready in 1988, when he promoted the concept of an anaesthesiology-based acute pain service: “Anaesthetists are a logical choice to provide pain relief in the immediate postoperative period since they are familiar with the pharmacology of analgesics, are aware of the short- and long-term effects of drugs given intraoperatively, are knowledgeable about pain pathways and their interruption and are skilled in the techniques needed to offer multiple forms of pain control including intravenous and epidural narcotics.” Acute pain management is not the responsibility of pain medicine specialists, but a concept which needs to be embraced by all anaesthetists.

I finish this editorial with a classic quotation from Harald Breivik (Norway) which outlines that provision of acute pain relief is a chance for anaesthesia as a medical specialty: “The departments of anaesthesiology now have a golden opportunity to expand their services into a field where we easily can get many satisfied customers – something very different from the operating room or the intensive care units where our patients are asleep or too sick to appreciate our efforts.”

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REFERENCES
5. Pain terms: a list with definitions and notes on usage. Recommended by the IASP Subcommittee on Taxonomy.


