

Editorials

The pain continuum: towards prevention and better management of pain

The Global Year Against Acute Pain, promoted by the International Association for the Study of Pain and supported by many organisations internationally, including the Australian and New Zealand College of Anaesthetists (ANZCA), Australian and New Zealand Pain Societies and Societies of Anaesthetists, provides an opportunity to focus on anaesthetists' contributions towards relieving acute pain and reducing the progression of acute pain to chronic/persistent pain. The latter is, of course, now known to be a large cost to healthcare resources in our two countries¹ and around the world.

Since the Joint Commission on the Accreditation of Healthcare Organizations declared pain as the "fifth vital sign" in 1999, it became written into law in parts of the United States^{2,3} and into the policy of the Veterans' Health Association, thus creating imperatives to measure pain and treat it. For anaesthetists, as perioperative physicians responsible for patients' well-being during and after surgery, the measurement and treatment of pain is part of their duty of care.

Naturally, acute trauma pain arises before any protective response can be mounted. In that context, initial acute pain biology induced by trauma cannot be prevented. But analgesic interventions drawn from the anaesthetist's armamentarium are increasingly applied as early as the retrieval phase, and continue throughout the perioperative and intensive care management phases. However, the unnecessary progression of acute pain to chronic/persistent pain is where we need to focus more efforts.

During preoperative assessment, valuable reassurance and information on realistic expectations can be imparted – a role of the anaesthetist as a communicator. Experience with patients suffering long-term pain following surgical procedures reveals that preoperatively, most had no idea what to expect following the operation. If pain continues unexpectedly, they conjure up thoughts of mishaps during surgery, and the resulting anxieties add to the overall distress and disability. For this reason, there is a strong case for anaesthetists to be well informed about the usual incidences of post-surgical neuropathic pain after common operations, including trauma. This can aid early recognition by all parties

if neuropathic pain does arise, so early intervention with effective measures can follow sooner rather than later. To better equip anaesthetists to do so, ANZCA has made pain knowledge a core part of its training curriculum. A group of surgeons with interest in pain medicine has also been formed within the Royal Australasian College of Surgeons, adding to the momentum.

Some preventative analgesia and pre-emptive analgesia methods are now supported by Levels I and II evidence^{4,6} (for definitions of these terms see reference 6). The PROSPECT website assesses evidence for measures applicable to nine common operation types⁷. In a perusal of these, it is evident that no one measure works for all cases. Anaesthetists deliver much of this as direct perioperative anaesthesia care. Solutions to the still very high burden of pain require that we at least increase the application of what is already supported by evidence. From a training perspective, this requires knowledge, appropriate attitudes, and skills – especially as communicators. Further learning opportunities exist through activities of the Acute Pain Special Interest Group of ANZCA and the Australian and New Zealand Societies of Anaesthetists. That's not to say more research is not needed – to which end the Anaesthesia and Pain Medicine Foundation of ANZCA funds quality research in Australia and New Zealand into many aspects of pain.

The biologic processes of severe acute pain are unavoidably triggered by surgery. For some, the sensitisation plasticity produced will predictably continue to cause long-term pain. Science has uncovered much about this neural plasticity, so understanding it as fully as possible is a starting point for considering rational interventions. Clinical epidemiologic studies prove that predictions from animal models of nerve injury pain are indeed true. A surge of reports from 1999 onwards highlight the high incidence of post-surgical neuropathic pain following many operation types⁸. Post-surgical pain – either short-term acute or long-term neuropathic – probably provides the largest pool of pain cases for in-hospital practice. Fortunately, there are opportunities for anaesthetists to use pre-emptive or preventative interventions, which at times

leave recovering patients with near zero pain (e.g. epidural anaesthesia with postoperative analgesia continuation for many types of surgery).

A damaging attitude that pain is inevitable and doesn't rate much attention unfortunately still remains in some quarters, and extends to both acute and chronic/persistent pain. From a service management point of view, we need wider acceptance that untreated pain is expensive, especially when it becomes chronic/persistent, and therefore we need to plan for, fund and organise services accordingly. While consumer advocacy groups have long been calling for more appropriate attention to pain, the 2010 National Pain Summit and subsequent newly formed *painaustralia* organisation have been established, both of which have been significantly supported by ANZCA and its Faculty of Pain Medicine. Support rallied from industry and philanthropic bodies adds a new channel for advocacy on behalf of consumers to government policy makers at state and federal levels.

When is pain no longer 'acute' and when does it become 'chronic/persistent pain'? The reader must understand that all the definitions are artificial – there is no absolute biological marker. Definitions are devised by international consensus panels⁹. We do need standardisation to serve epidemiology and service planning needs. It is timely to consider changed definitions and trends over the past several decades. An earlier definition of 'chronic pain' required it to be present for six months, but this was later reduced to three months. Other terminology has referred to 'subacute pain' that lasts from one to six months, and chronic pain that which "extends beyond the expected period of healing"¹⁰. Even that is imprecise, because it does not have regard to the usual 'healing time' for a particular condition.

A patient's experience of pain over time is a continuum, without meaningful acute/chronic delineations, but modified sometimes by optimistic but unrealistic promises from clinicians, leading to unmet expectations, especially in relation to the emotional impact as time rolls on. No definition captures this adequately. It is for good reasons then, that Faculty of Pain Medicine training requires exposure to casework across this continuum of acute, chronic/persistent and cancer pain.

Much of the 'in-hospital pain' we see would not be managed according to current best practice if we waited for three months to see if it fades before doing more about it. Effective early intervention is important in trying to reduce chronicity. It is mostly anaesthetists who manage this in-hospital pain, defined by the location of the patients rather than tight

definitions like 'acute' and 'chronic'. Anaesthetists practise primarily in hospital facilities, and in private hospitals they are often the only practitioners with advanced pain management skills – another reason to include pain medicine training as a necessary part of the anaesthesia curriculum.

As the duration of hospital stay increases because of ongoing pain, so does the need for knowledge and skills in managing long-term pain. Not all anaesthetists like or are suited to these extended roles, but those who do, generally work in teams and collaborate with others specialised in psychological evaluation and rehabilitation care, that is, as 'specialist physicians in pain medicine' – to use the new national registration authority term for a Pain Medicine Specialist with FFPMANZCA. It is no sin that many anaesthetists find this work less satisfying, but all anaesthetists should be well equipped to approach these problems from a well informed position, to be able to recognise where extra care is or will be needed, and to facilitate obtaining the best services for a patient's condition – even if it will be delivered by others.

Is prevention of chronic/persistent pain possible by attention to acute pain? This is an attractive idea, especially as lost productivity and provision of social support for people hampered by chronic/persistent pain is very costly. The answer is, we don't know yet! For many reasons it would stretch our credibility to claim that. The biologic, psychologic and social contributions to long-term pain are numerous. A world without pain would be unrealistic. However, on the world scene the contribution of Australasian anaesthesia specialty is highly regarded for its huge contributions to the advancement of science, education, advocacy and standards of clinical practice in the field of pain across the continuum.

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