Managing Chronic Pain

Effective treatment of pain and discomfort requires a health care team that can address both the physiological and psychological aspects of chronic pain.

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When pharmacists evaluate drug outcomes, the typical measures of success are reduction or elimination of the disease states and/or an increase in survival rates. But when it comes to treating chronic pain, the measure of success changes. Since pain is a perception, assessing success is much more difficult.

The difficulty of measuring perceived changes is just one of the challenges facing managed care pharmacists in treating chronic pain, according to Andrew Sukiennik, M.D., assistant professor, Tufts University, and Director of Pain Management, New England Medical Center, Boston. He addressed the Academy of Managed Care Pharmacy's Ninth Annual Meeting in New Orleans. Other challenges include coordinating with a multidisciplinary team, working in a wide variety of treatment settings, and assisting in treatment plans to meet the needs of patients and their health care providers.

All of this must also be accomplished within ever-shrinking budgets.

UNDERSTANDING PAIN

"Pain management today is an exciting field," Dr. Sukiennik said in his session, "New Frontiers in Pain Management." "The last forty years in pain research has yielded substantial and significant advances in pain evaluation, treatment, and nociceptive mechanisms.

"Chronic pain cannot be viewed as just a physiological condition. The psychological impact that chronic pain has on an individual must be taken into account. It must be treated holistically, using the specialized skills of psychologists, physical therapists, physicians, and pharmacists."

Sukiennik said that pain may be described both by a physiological and temporal presentation. Chronic pain occurs if acute pain lasts for more than three months after tissue has healed.

Injury to non-neural tissue results in inflammation and an aching, throbbing and sharp quality of pain, known as nociceptive. The weekend carpenter who bangs a thumb with a hammer while nailing experiences this type of pain. The other major classification of pain is known as neuropathic. It is the result of injury to peripheral nerves, the spinal cord, or brain. This type of pain can be difficult to treat and is described as electrical, burning, "tender to touch," and stabbing. Shingles, diabetic, or HIV neuropathy are just a few examples of this type of pain.

TREATING PAIN

Opioids can be used successfully to treat both types of pain. Neuropathic pain requires higher doses in addition to other medications that act on the central nervous system, such as anticonvulsants, antidepressants, and N-methyl-D-aspartate (NMDA) receptor antagonists. NMDA antagonists promise to help manage neuropathic pain better in the future. Current NMDA antagonists are dextromethorphan and ketamine.

Opioids and some adjuvants can be given spinally to produce profound analgesia in recalcitrant cases of pain. Electrical stimulation of the spinal cord has helped treat radiculopathies and pain from peripheral vascular disease.

Sukiennik discussed the use of cyclo-oxygenase 2 (COX2) inhibitors. He stated that new types of nonsteroidal anti-inflammatory drugs will specifically target mediators of inflammation and avoid COX1 enzymes. COX1 enzymes are important for mucosal integrity and kidney function. Clonidine, an α_2 adrenergic agent used to lower blood pressure, is a useful medication to control neuropathic pain. This medication, when given epidurally, helps to control pain where opioids alone have failed. Long-acting (three day) local anesthetic delivery systems given by injection also are being developed.

HISTORICAL PERSPECTIVE OF OPIOID TREATMENT

Opioids remain the gold standard of treatment today for pain. Opioids, popular for thousands of years, fell out of favor in the 19th century. British use of opium to pay for Chinese goods and services resulted in the opium wars and Chinese subjugation and the loss of Hong Kong. Western governments—recognizing the potential harm opioids could cause to the population—enacted regulations which, at times, resulted in undertreatment of pain. Pharmacists in Boston surveyed drug use in the 1900s and found that one-third of prescriptions were for opiates and that two-thirds of the prescriptions were refilled more than twice.

Fortunately, the use of morphine (isolated by Serturmer, a Swiss pharmacist) and other similar analgesics are used more and more today to treat chronic benign and malignant pain. Although these medicines are not a panacea, they are powerful allies in the battle against pain. When using them, health care providers must always consider the patient's psychological state. Psychological evaluation by a psycholo-

gist well versed in pain management principles is mandatory before chronic opioid therapy is instituted.

SOCIOECONOMIC IMPACTS OF CHRONIC PAIN

Chronic pain has significant social and economic impact. Sukiennik cited a 1996 Ortho McNeil/Harris Poll reporting that 17 million American workers suffer from chronic pain. The study estimated that 50 million workdays were lost as a result of chronic pain and about \$3 billion in wages paid for sick leave. The types of pain most often cited in the survey were headache, back ache, painful menses, and repetitive work injuries, such as carpal tunnel syndrome. Neuropathic pain resulted in the longest absences from work. Industry has yet to recognize the need to proactively intercede to prevent and reduce the need for sick leave, Sukiennik said.

"Pain management has come a long way," Sukiennik said, 'but there still is much work to be done.' In particular, he said progress is hampered by the lack of funding for controlled clinical trials which would enable the health care community to better assess treatment outcomes. "The need for evidence-based medicine is sorely needed to make sense of the morass of treatments of partially-understood conditions."

Sukiennik concluded by saying that "industry and practitioners must work together to learn from each other. Everyone must be 'patient focused' if the U.S. is to maintain the lead in health care." ■