Pain Ther (2016) 5:127–133
DOI 10.1007/s40122-016-0058-x

EDITORIAL

Change Pain: Ever Evolving—An Update for 2016

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Received: August 4, 2016 / Published online: October 14, 2016

ABSTRACT

Since 1986, the pharmacological management of pain was mainly based on the WHO "analgesic ladder", with very few drugs available. The huge development of the basic knowledge on pain and its therapy, especially in the past 15 years, has made the "guidelines" of WHO obsolete. That's why, during the presidency of EFIC of one of the authors (GV), an international advisory board was proposed to review the document, but mainly to ameliorate the approach to the pain patients.

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Keywords: Analgesics; Chronic pain; Opioids; Pain; WHO analgesic ladder

EDITORIAL

In 2009, an international board of distinguished pain specialists was established in order to address the pervasive unmet worldwide problem of inadequate control of pain. Called CHANGE PAIN, the organization's 21 founding members consisted of key opinion leaders, representing the United States of America and various countries in Europe. The European Pain Federation EFIC® (formerly The European Federation of International Association for the Study of Pain Chapters) and a corporate sponsor supported the efforts of the group, which meets

twice yearly under the chairmanship of the President of EFIC®.

WHERE WE'VE BEEN

Pain control, particularly for chronic non-cancer pain, has historically been a major unmet need in medicine, even in the world's most advanced healthcare systems. When CHANGE PAIN first convened, it was the consensus that some of the main reasons for inadequate analgesia were related to: failure to balance adequate analgesia with tolerability, which leads to poor patient compliance and discontinuation of treatment; neuropathic pain is prevalent and challenging to treat, because of the lack of fully efficacious drugs; and inadequate physician–patient communication about pain, which leads to suboptimal treatment goals [1]. In an effort to improve this situation, the board recommended that clinicians gain a better understanding of pain mechanisms and the emerging knowledge about the multifactorial nature of chronic pain, in order that those pharmacologic decisions could be better based on the underlying mechanistic factors. The board also recommended techniques to improve communications between chronic pain patients and their healthcare providers. Additionally, the board explored the concept of the 'vicious circle' of pharmacologic therapy in chronic pain patients, in which drug doses are alternately increased to provide adequate analgesia and decreased to reduce side effects [2, 3].

The first international expert meeting of CHANGE PAIN was held in June 2010 in Rome, Italy. Presentations were made about current pain control status to the more than 200 international pain specialist attendees. As delineated at the meeting, the strategy of CHANGE PAIN is to implement clinically meaningful changes that will lead to better pain control. Among its efforts to achieve this goal, CHANGE PAIN set out to conduct research about chronic pain, to publish informative and educational papers about pain, and to develop and promote continuing medical education (CME) activities related to the application of evidence-based strategies for improving pain management.

A physician survey conducted by the CHANGE PAIN initiative in 2009 revealed that while most physicians agreed that pain control and improved quality of life were treatment goals for their pain patients, most believed that the medical community had limited knowledge about recent research on basic science of pain, such as the differences between nociceptive and neuropathic pain [2]. The group also developed a simple CHANGE PAIN Scale to help clinicians to better record pain intensity, define treatment goals for the individual patient, and provide ways to improve the patient's quality of life [2].

In November 2010, CHANGE PAIN evaluated evidence in order to move toward a prognostic approach to defining chronic pain by including psychological, behavioral, and other dimensions, such as physical changes, in order to modernize the existing pain models. Previously, the definition of chronic pain was problematic in that it defined chronic pain only temporally (e.g., persisting for 3 months or longer), even though the duration does not account for the differences between chronic and acute pain in terms of pathophysiology, physiology, mechanistic aspects, or biopsychosocial factors. A scoring system has now been developed to help define whether a patient dealing with persistent pain has probable or possible chronic pain [4].

In June 2011, CHANGE PAIN convened in Belgium and reviewed the mechanisms and knowledge base about chronic pain and its treatment options. Issues in chronic pain diagnosis, the availability and efficacy of multimodal pharmacological therapies, and a biopsychosocial approach to chronic pain treatment were presented. A multidisciplinary team approach to chronic pain management was advocated, which would involve a primary care physician, pharmacist, physiotherapist, nurse, and psychologist or psychiatrist, and supplemented for some patients with neurologists, rheumatologists, orthopedists, or other specialists, to be led by a pain specialist or anesthesiologist. The successes of nine such multidisciplinary centers for chronic pain care in Europe since 2005 were reviewed [5].

Later that same year, the CHANGE PAIN advisory board met to discuss the special issues related to pain treatment in the geriatric population. Although chronic pain is prevalent among the elderly, it is often untreated or under-treated [6]. Pain control can be complicated by other age-related physiological changes, increasing rates of polypharmacy and comorbidities, and generally poor pain medication adherence rates among the elderly [7, 8]. CHANGE PAIN challenged the two common misconceptions about pain in the elderly: first, that older people have a diminished capacity to feel pain and, second, that pain is an unavoidable part of growing older that cannot be treated. Pain in senior patients can be treated, but dosing needs to be adjusted to account for the decline of organ function with age (particularly the liver for drugs metabolized through CYP pathways). CHANGE PAIN recognized that a subset of geriatric pain patients with dementia, Alzheimer's disease, and other forms of cognitive impairment are often difficult to recognize and diagnose. Therefore, special pain scales were sought for assessing pain in such patients. In this regard, the board was introduced to the Painvision™ system being developed in Belgium in which the facial expressions of such patients are continuously monitored in real time and compared to computer-based standards to correlate facial expressions with pain levels.

In March 2012, the CHANGE PAIN Advisory Board convened to discuss the topic of cancer pain management. As more cancer patients survive and live longer, pain control in cancer survivor care is becoming an increasingly important clinical concern. Cancer pain is often multifactorial in nature, often including a neuropathic component, and may be complicated by disease progression as well as the chemotherapeutic therapies themselves. Cancer pain may be intermittent or continuous and is often punctuated by 'breakthrough pain' (flares of severe pain against a background of baseline pain). Despite the fact that most cancer patients experience pain [9], 22 % said they were never asked about pain or offered pain control and 11 % took no analgesics at all for cancer pain (including over-the-counter products) [9]. Overall, cancer pain is not routinely managed by referrals to pain specialists. Indeed, the disheartening picture of cancer pain treatment in 2016 demonstrates that the very same obstacles that confronted colleagues 20 years ago confront us today. Cancer pain is not routinely assessed, rarely if ever discussed frankly, and may not be prioritized in treatment plans that focus more on disease than on pain control. Cancer patients may hesitate to 'distract' their oncologists by bringing up pain symptoms while others may assume that pain is an inevitable part of cancer and that nothing can be done to alleviate it. Moreover, some patients

may deliberately conceal their pain from their medical team, afraid that worsening pain might indicate disease progression and a poor prognosis [10]. Some patients are categorically opposed to opioid pain relievers and may prefer to suffer in silence rather than risk having a doctor recommend these drugs [11].

CHANGE PAIN suggests some simple guidance: cancer patients should have a validated pain assessment at every follow-up session, the clinical team should discuss pain with the patient during each and every session, and the oncologist should develop a plan to address the pain using evidence-based treatments, and refer the patient to a pain specialist if necessary [12].

WHERE WE ARE TODAY

Pain remains a largely unmet need. However, an increasing number of professional publications and presentations, patient advocacy groups, and public awareness point toward the need for appropriate analgesia and are raising awareness that inadequate pain control is an important and urgent problem, in which clinicians and healthcare systems can make meaningful improvements in many patients' quality of life with a few conscientiously applied, evidence-based steps.

The first step involves a thorough knowledge among physicians and other caregivers about analgesic agents and the use of evidence to guide their appropriate selection, use, and avoidance of misuse or abuse. A significant barrier to more effective pain relief continues to be a reluctance or concern to prescribe opioid analgesics. In many parts of the world, opioid use is virtually nonexistent, even for the treatment of severe to very severe pain at end of life [13, 14]. Even in nations where opioids are more readily available and accepted, some prescribers may hesitate to utilize them, even when they are medically appropriate, for fear of fueling opioid misuse and abuse or concern about legal liability [15]. This reluctance to treat the pain of the majority exists despite the fact that only a subset of patients prescribed opioids will ever take then inappropriately [16]. Many clinicians also feel that they are not adequately equipped to manage complex pain conditions or are inadequately trained to prescribe opioid analgesics. These problems are pervasive and unnecessarily contribute to inadequate pain treatment, but they can be addressed by open, frank, and objective recognition of the problems and by informed knowledge about the emerging knowledge and options in analgesic pharmacotherapy and the available clinical guidelines. Continuous effort needs to be placed on continuing educational activities for each of the healthcare specialties, presentations, meetings, and educational outreach and collaboration with patient advocacy groups, researchers, and regulatory groups.

The CHANGE PAIN Advisory board continues to meet twice a year to address these key topics and The Advisory Board key opinion leaders publish and speak about these important topics all over the world.

WHERE WE'RE GOING

The populations of many nations are aging, which means there will be a marked increase in chronic pain conditions in the coming decades. In addition, breakthroughs in oncology and other specialties means that many patients will be living longer with 'managed' diseases and many of them will have concomitant painful symptoms. It is unclear how the healthcare

systems of the world will manage the anticipated increase in the number of pain patients. New perspectives appear at the horizon, especially if we better examine the physiopathological mechanisms of chronic pain that appear very much correlated to all the cells of the central nervous system (CNS), including glia, and not just to neurons [8]. This would also open the possibility of different pharmacological approaches [17, 18]. Moreover, there is a continuing need for more and better clinical education, more research into pain mechanisms, and more targeted pharmacological options to help address specific and challenging types of pain.

Patient education is also needed to help patients overcome counterproductive personal, familial, and cultural attitudes about pain and suffering. These attitudes include beliefs that pain is inevitable or that taking pain relievers is a sign of weakness. Some patients may feel that discussing pain symptoms is the same as complaining and could be taken as a sign of moral weakness. Other patients resist pain management therapies for fear of becoming addicted, or in the mistaken belief that pain relievers should only be taken to help manage the most severe levels of pain. Some may believe that taking opioid pain relievers will be detrimental to their self-image, reputation, or keeping their jobs. Healthcare providers can go a long way to dispel many of these maladaptive beliefs about pain control, but patient-based educational efforts are needed as well. Patients must also be educated in the appropriate use of analgesic agents so that the medications are taken exactly as prescribed and neither discontinued abruptly nor doubled-up on bad days. The proper disposal of unused analgesic medications is another important concern that needs to be addressed. CHANGE PAIN intends to be on the forefront of these issues.

Prescribers must balance safety with efficacy when selecting analgesic medications. This is especially important for drugs with toxicity issues (such as potential organ toxicity associated with NSAIDs and liver toxicity associated with acetaminophen) and the adverse events (such as respiratory depression, sedation, and other opioid-associated side effect) as well as abuse potential associated with opioids. Patients need to be made aware of the benefits and risks of each of the categories and each of the analgesic medications they are prescribed. For patients at risk of opioid misuse and abuse, there are tools to assess individual risk factors [19, 20] (e.g., the Universal Precautions in opioid prescribing [21, 22]) and guidelines for treatment. Another measure is abuse-deterrent formulations (ADF) of opioid agents, designed to prevent or resist tampering. National and local efforts in the form of prescription drug monitoring programs (PDMPs) and laws imposing strict penalties directed at 'pill mills' should be supported. Just as many painful conditions are multifactorial and are best addressed using a multimodal therapeutic approach, the public health problem of opioid misuse and abuse is a complex one that requires a multimodal approach. Efforts by CHANGE PAIN will be directed toward emphasizing and publicizing the importance of balancing opioid analgesia with safety. Prescribers need better education about opioid analgesia and patients, the public, the media, and regulatory, legislative, and judicial bodies must be made aware of both the risks and benefits of opioid therapy. CHANGE PAIN will promote interactions in which all parties will feel comfortable to be involved in cooperative collaborations.

In summary, the goals of CHANGE PAIN remain the same, and as important, as they were half a decade ago: to provide a measure of relief

for those suffering from pain, through education, basic and clinical research, and communication. This is no easy task. Attaining these goals will continue to require the professional stamina, determination, and persistence demonstrated in the past years. However, considering the profound benefits that can be realized, the goal of better and safer pain control is worth our greatest efforts.

ACKNOWLEDGMENTS

No funding or sponsorship was received for this study or publication of this article. This editorial was prepared with medical editing services by Jo Ann LeQuang of LeQ Medical in Angleton, Texas. All named authors meet the International Committee of Medical Journal Editors (ICMJE) criteria for authorship for this manuscript, take responsibility for the integrity of the work as a whole, and have given final approval for the version to be published.

Disclosures. J.V. Pergolizzi has received honoraria, as component of the CHANGE PAIN Advisory Board. G. Varrassi has received honoraria, as component of the CHANGE PAIN Advisory Board. A. Paladini and Robert B. Raffa have nothing to disclose.

Compliance with ethics guidelines. This article is based on previously conducted studies and does not involve any new studies of human or animal subjects performed by any of the authors.

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