Availability and Accessibility of Opioids in Developing Countries, with Special Reference to Eastern Europe

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Abstract

Severe pain is present in about three-quarters of the millions who suffer from cancer or HIV/AIDS in developing countries. Opioids, especially morphine, are vital for pain relief, yet western European countries – in contrast to those in eastern Europe – account for 88% of the total European consumption of opioids. Eighty per cent of the world's population live in developing countries but receive only 6% of the available morphine. Pain control is possible using World Health Organization (WHO) guidelines in 85–90% of cancer patients, but far fewer gain relief as a result of several barriers to treatment, including inadequate training of healthcare professionals in pain management, obstructions due to governmental health regulations, fear of opioid addiction in health professionals, government advisors and the general public and, in some cases, the costs of medication. The position is similar for HIV/AIDS sufferers.

Keywords

Pain, cancer, HIV/AIDS, opioids (availability, accessibility), developing countries, eastern Europe

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Pain does not appear as a cause of global mortality or disease burden in World Health Organization (WHO) statistics on leading causes of death and disease burden worldwide.[1] However, pain causes immense suffering, especially in those with two of the world's major causes of morbidity and death, which are most prevalent in developing countries: cancer and HIV/AIDS. Apart from the suffering of individuals, these conditions give rise to significant burdens for their families and carers and diminish their quality of life. In order to tackle these problems with cancer, HIV/AIDS and the many other causes of acute and chronic pain as a focus, the International Association for the Study of Pain (IASP), the European Federation of IASP Chapters (EFIC) and WHO marked the European Week Against Pain in 2004, and launched the first IASP Global Year Against Pain, with the declaration that "pain treatment is a human right".

In economically developed countries, chronic pain affects about 20% of the adult population, of which those with cancer account for 1–2%. Comparable figures are not available for developing countries, but will be greater, especially because of the high and rising prevalence of cancer.[2] Of the 6.6 million individuals in the world who die from cancer each year, 70% die in low- and middle-income countries and 70–80% of these people will have suffered severe pain.[3] Over 42 million people are living with HIV/AIDS worldwide and over 70% of these individuals live in sub-Saharan Africa. The number living in eastern Europe and central Asia was estimated at 1.7 million in 2006, and the numbers have been rising steadily for several years. In 1999,[4] the majority of those affected lived in the Russian Federation and the Ukraine, and in 2006 these populations accounted for 90% of all people living with HIV/AIDS in eastern Europe and central Asia.

Estimates of the prevalence of cancer pain have varied widely, but published figures indicate that in general about 75% of individuals with advanced stages of the disease have pain. Figures for HIV/AIDS are similar, with pain intensity appearing to be of the same severity as or even greater than in cancer. Opioids, and especially morphine, are vital for the treatment of the severe pain experienced in these conditions because the drugs are both effective and relatively affordable. Cancer pain arises from a variety of causes, including pain due to the disease process and pain caused by cancer treatment, and patients may also suffer from painful conditions unrelated to cancer and its treatment. Most have two or more sites of pain and more than 40% have four or more sites. A study at the Sloane Kettering Cancer Center in New York revealed a rising incidence of pain with advancing HIV/AIDS. Sixty per cent of patients had pain presumed to be due to the viral burden or immunosuppression, 30% due to treatment and 10% due to non-AIDS disorders.[5] Neuropathic syndromes are common in AIDS, being present in 30–40% of patients, in addition to which pain due to myelopathy is present in 10%. These and other neurologically based pain conditions include immune-mediated neuropathy, toxic neuropathies and nutritional deficiencies, and antiretroviral therapies, surgery and treatment with phenytoin make up a significant proportion of the morbidity of HIV/AIDS. Other common pains include abdominal pain, headache, oral pain and skin and joint pains.

Evidence from the wide range of treatments used for cancer pain shows that in 85–90% of patients the pain can be controlled using the WHO guidelines. WHO stated in 1996 that only 50% of pain control is achieved in cancer patients as a result of the presence of several barriers to treatment, including inadequate training of healthcare professionals,

obstructions posed by government health regulations, a fear of opioid addiction and, in some countries, the cost of medication. There remains clear evidence that barriers to treatment are much greater in some regions of the world than in others, especially in developing countries. For example, in an International Narcotics Control Board report it was revealed that in Europe, 10 western countries accounted for 88% of the total consumption of opioids. Therefore, despite the fact that morphine is a drug included in the WHO model of essential drugs, people in eastern Europe are undertreated.[6] Moreover, given that over 80% of the world's population lives in developing countries, it is shameful that they receive only 6% of the morphine available.

Members of IASP in 10 eastern European countries, from a total of 46 developing countries in the association, contributed to an IASP survey of cancer treatment and the availability of opioids.[7] This gave a clear indication of the availability of this group of drugs in contrast to the extent to which patients receive them for the treatment of severe pain. Overall, the availability of opioids was high, with 93% of respondents reporting that morphine was available, with figures for fentenyl at 73%, methadone at 56% and weak opioids at 89%. Respondents from eastern European countries followed this reporting pattern. However, overall 36% of respondents reported that only 50% or more patients received opioids, 52% reported figures of 10–50% and 12% reported that fewer than 10% of patients received opioid drugs. The figures from eastern Europe were 37.5, 58.3 and 4.2%, respectively. The lowest levels of availability in the study were in the African regions and the Indian subcontinent, revealing a worldwide treatment gap between economically developed and developing countries.

An IASP publication in 1996 by Breitbart and others commented that undertreatment of pain was more widespread in AIDS than in cancer.[5] For example, despite a 40% incidence of neuropathic pain, adjuvant drugs such as antidepressants, anticonvulsants, local oral anaesthetics, corticosteroids, neuroleptics and others were received by only 6% of patients. The same authors quoted a survey by the Eastern Cooperative Oncology Group[8] that revealed that only 15% of 500 patients had adequately controlled pain due to AIDS in comparison with 58% of those with cancer pain. In addition, the authors stated that women were twice as likely to be undertreated as men.

Why should this treatment gap – which is the level of actual treatment available compared with the level of treatment given – be so great, and why is there such a striking difference between the use of powerful opioids for severe pain in developing countries and the more advanced economies? Barriers to treatment were mentioned earlier. In the case of education, problems begin at the undergraduate level, where pain and its management are often a neglected part of the medical curriculum; this also applies to other health professions. Therefore, many doctors and nurses, as well as others in the healthcare field, enter professional life lacking a proper understanding of the biopsychosocial model of pain and the range of physical and psychological methods available for its treatment. Neglect of education in pain management is compounded in many cases by a lack of knowledge of the properties of powerful opioids, leading to an unfounded fear and myth that patients will become addicted to them. This fear (opiophobia) is shared by many government health authorities, who consequently impose severe restrictions on the availability and use of opioid drugs. In addition, patients and their families share the fear of the use and effects of opioids. Such fears arise not only from a lack of knowledge but also at times from confusion between the use of 'street drugs' and their clinical use. Costs may be a problem, but have been overcome in some regions. For example, in the state of Kerala in India, morphine tablets are manufactured locally using imported raw materials at a fraction of the cost of the product from pharmaceutical companies. Opiophobia in relation to the treatment of AIDS is more understandable because individuals who self-inject have the highest rates of increase in AIDS, especially in large urban areas. For example, a WHO briefing note in September 2008 stated: "Of all new HIV infections in eastern Europe and central Asia in 2005, 67% were due to injection drug use. Surveys show that 55–58% of those new infections could be prevented by treatment of opioid dependency and this would correspond to the prevention of no fewer than 80,000 HIV infections each year." The experience of those who deal with cancer pain indicates that pain can often be managed adequately in substance abusers with life-threatening illnesses.

It is clear that there are major problems with both opioid availability and accessibility limiting their prescription for severe pain in all developing countries and eastern Europe, leading to much unnecessary suffering.[6] The European Society of Medical Oncologists stated: "Availability refers to what the law will entitle to patients" and noted that controls applied to the illegal use of this group of drugs have led to severe restrictions in the range of medications available, including limits on doses and the duration of therapy.[8] These problems were also reported across the six world regions in the IASP Survey of Developing Countries. Access to opioids is also affected by barriers to the prescription of this group of drugs: for example, in some countries only certain licensed physicians may prescribe them or patients may need permits to receive them. Also, the routes through which they may be dispensed are often very restricted; dispensing may be confined to hospitals or pharmacies may be reluctant to prescribe opioids and to have them on their premises. Less usual factors may lead governments to increase regulatory aspects of the control of opioid medication in the light of incidents involving their misuse. For example, following the Shipman Inquiry in the UK (Dr Shipman is believed to have killed over 200 patients by the deliberate injection of overdoses of morphine), a review of undergraduate and post-graduate medical and other forms of healthcare education together with the establishment of an extended range of controls over the prescription of opioids took place.

Relief of moderate to severe pain frequently includes treatment with opioids, but often – and particularly in developing countries – access to them is limited even when they are available. The reason for this situation lies in the barriers to treatment, which are well known. Overcoming these barriers is a matter for governments, health professionals and the general public, including patients themselves. The path towards improved treatment is being led vigorously by international organisations, in particular WHO, IASP and palliative care associations. ■

1. World Health Organization, *The World Health Report 2003*, Geneva: WHO, 2003.
2. Breivik H, et al., *Eur J Pain*, 2006;10:287–33.
3. Vainio A, Auvinen A, *J Pain Symptom Manage*, 1996;12: 3–10.
4. Dehne KL, et al., *AIDS*, 1999;13(7):741–9.
5. Breitbart W, et al., *Pain Clinical Updates*, 1996;1(IV).
6. Council of Europe, Recommendation (2003) 24 of the Committee of Ministers to Member Stages on the Organisation of Palliative Care, Adopted by the Committee of Ministers at the 860th meeting of the Ministers Deputies, 12 November 2003.
7. Education and Training for Pain Management in Developing Countries: A Report by the IASP Developing Countries Taskforce, IASP, Seattle, 2007. Available at: iasp-pain.org
8. Cherny N, et al., *Ann Oncol*, 2006;17(6):885–7.

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