



Opioid Analgesics Access in Low-Middle Income Countries

- **Quyen Van Than, MD:** Chief of Pain Clinic Hospital 199, Da Nang, Vietnam
- **Yacine Hadjiat, MD:** National Institute of Health and Medical Research (INSERM, U987), Paris- Saclay University (EDSP), Paris, France
- **Mulugeta Bayisa Chala, PT, PhD:** Lawson Research Institute/ St. Joseph's Health Care London, London, ON, Canada
- **Nguyen Huu Tu, MD, PhD:** NYU Dentistry Translational Research Center, New York University Dentistry/ NYU Pain Research Center, New York University, New York, NY, United States
- **Ajayi K. Oluwafemi, MSc:** University of South Africa

Opioids are indispensable for the treatment of severe short-lived pain during acute painful events and at the end of life^[1]. Despite being recognized as an essential medication for pain management and palliative care by the World Health Organization (WHO), significant global disparities in opioid distribution persist^[2-4]. Notably, 92% of the available opioids are consumed in high-income countries, while only 8% are distributed among low- and middle-income countries (LMICs)^[5]. Several factors contribute to this inequity, including overly restrictive opioid regulations, market barriers, limited prescriber knowledge, and historical-social determinants that hinder accessibility in LMICs^[6,7].

The Need for Opioids

Pain management has been recognized as a basic human right worldwide. While pain is prevalent all over the globe, the burden of untreated pain falls heavily on LMICs^[8]. This is partly due to the lack of essential pain medication including opioids, which are crucial for severe pain management. The WHO's Pain Relief Ladder highlights opioids as a crucial component in pain management, ensuring quality of life and reducing unnecessary suffering^[9]. Lack of access to opioids has been identified as a barrier to effective pain management and palliative care in LMICs^[10,11]. Additionally, inadequate legitimate access to opioids may drive individuals to seek illicit sources to manage their pain, increasing the risk of unsafe use and associated harms^[12].

Current Status

While opioids are widely used in high-income countries, their availability remains critically low in many LMICs^[5]. The shortage is not only in the amount of opioids but also in the formulation of the medication. There is a significant lack of strong opioids such as morphine and oxycodone; instead, tramadol, tapentadol, and codeine accounted for 87.7% of total MME (milligram morphine equivalent) consumption in LMICs^[3]. Notably, while tramadol has not been subject to national control in many LMICs, its widespread use has raised significant concerns regarding the associated risks^[13]. Limited production, regulatory hurdles, and high costs are among the factors that contribute to opioid scarcity in LMICs. Furthermore, cultural perceptions and fear of addiction often lead to resistance in prescribing and dispensing opioid medications^[7,11,14]. Despite the lack of access to essential pain medicine in LMICs, there are alarming reports of illicit use of opioids and overdoses in LMICs such as Ethiopia^[15]. The overuse of opioids is particularly concerning to physicians and students. Additionally, the general public including young adults, drivers, and manual laborers face challenges due to the limited awareness of the dangers of opioid misuse.

Barriers to Opioid Use in LMICs

1. **Regulatory and Legal Barriers:** Strict opioid control policies aimed at preventing misuse often result in excessive restrictions that limit legitimate access for medical use. This also further exacerbates the fear of prescribing opioids among prescribers^[7].
2. **Limited Healthcare Provider Knowledge:** Inadequate training on pain management and opioid prescribing among healthcare professionals contributes to underutilization^[4, 16].
3. **Supply Chain and Market Barriers:** Poor pharmaceutical supply chains, lack of local production, and economic constraints make opioid medications inaccessible for many patients^[4,17,18]. Additionally, the scarcity is further exacerbated by the limited number of pharmacies authorized to dispense these medications, even when they are available^[19,20].
4. **Cultural and Social Stigma:** Fear of opioid addiction and misconceptions about their use hinder both prescribing and patient acceptance^[4,17,18].

Overcoming Challenges

- **Regulatory Reforms:** Governments should balance opioid control policies with access needs by implementing WHO-recommended opioid availability frameworks^[21].
- **Education and Training:** Enhancing pain management education for healthcare providers is crucial to optimizing opioid prescribing practices^[4,22]. Educational efforts should aim to (1) support the appropriate use of opioids in clinically indicated cases, and (2) mitigate the risks associated with opioid misuse, abuse, and overdose-related mortality.
- **Improving Supply Chains:** Strengthening pharmaceutical distribution networks and encouraging local opioid production can help bridge the accessibility gap^[23].
- **Public Awareness Campaigns:** Addressing opioid-related stigma through targeted community education programs can promote their appropriate use in pain management^[4,18].
- **International support:** Enhancing safe opioid accessibility requires collaborative efforts and policy changes that often cannot be achieved by individual countries alone. Partnering with influential international organizations in the field and fostering cooperative initiatives can significantly improve the likelihood of success^[18].

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