Averting a UK opioid crisis: getting the public health messages 'right'

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In an era of 'fake news', communicating factual public health messages is pertinent. The opioid crisis in the US has affected entire communities, with 192 lives lost every day[1], and misinformation cited as a contributing factor[2]. In England, the prescription of opioids has increased by 127% since 1998[3]. Opioid deaths in England and Wales are at an all-time high, with 2,263 deaths involving an opioid in 2020[4]. Clear information and messages are required on the indication, benefits, and safety of opioids, as well as alternatives to inform patients and guide shared decision-making in clinical practice. This commentary discusses the need for a collaborative and coordinated data-driven approach to getting the right messages to the right people at the right time to avert a UK opioid crisis.

The 'right' messages

There are four key messages that should be disseminated to the public and prescribers regarding opioids (see Box 1). The first message relates to the distinction between acute and chronic pain. Acute pain and, for similar reasons, cancer pain extending into most end-of-life pain is a response to tissue damage which responds well to analgesia and has the potential to improve as the disease process resolves. In contrast, chronic pain persists beyond expected tissue healing and represents a dysfunction of the pain system[5]. The cause of chronic pain is complex and involves the interplay of biological, psychological, and social factors. While acute pain represents a useful (and important) 'alarm', chronic pain constitutes a 'faulty alarm', where the ongoing pain signalling is unhelpful and distressing. The distinction between acute and chronic pain is important as the treatment and management strategies also differ.

The second message is that opioids are effective in the short term for acute pain while providing limited benefits for some people with chronic pain. Opioids play an important role in treating cancer pain, during palliative care, and managing acute (e.g. postoperative or trauma) pain. Conversely, opioids are neither beneficial nor safe for most people with chronic non-cancer pain, where pain can persist for months, years, or even decades. Most clinical trials on the effects of opioids are conducted over short durations, using placebo comparators (rather than

paracetamol, physical or psychological therapies), and exclude people at high risk of serious adverse events - limiting the generalisability to clinical practice[6]. Chronic pain management aims to improve people's quality of life and daily function. Paradoxically, opioids do the opposite in people with chronic pain; they increase the severity of pain, negatively impact quality of life, and reduce one's ability to function[7,8].

Our third message is that patients should be informed of the side effects, harms, and risks of taking opioids *before* initiation. Opioids (e.g. morphine and codeine) belong to the same class of drug as heroin, and there are over 200 different types of opioids[9] (see Table 1). Common side effects include constipation, sleep disturbance, daytime somnolence, poor memory, and poor concentration. Opioids can also compromise immunity increasing the risk of infection[10]; affect the endocrine system which impacts sexual function and fertility[11]; increase the risk of falls and fractures[12], and depress the respiratory system. Opioid-induced hyperalgesia and opioid tolerance can also lead to further harm[13]. Superseding all of these is the development of dependence, addiction, and the increased risk of overdose and death[14,15]. Prescribing opioids at high doses (e.g. 120 mg/day of morphine equivalent or greater) has no increased benefits. Instead, high doses of opioids are associated with greater morbidity and mortality[16]. Using shared decision making, prescribers should thoroughly inform patients of the side effects, agree a functional goal to assess opioid effectiveness, and discuss a maximum dose and tapering plan before initiating a patient on opioids.

Table 1. Common types of opioids by their origin of discovery (class), alphabetically ordered. The complete list of 233 opioid drugs is available at the Oxford Catalogue of Opioids (https://www.catalogueofopioids.net/)[9]

Class	Examples of opioids
Naturally occurring (alkaloids)	codeine (as in co-codamol) morphine opium
Semi-synthetic	buprenorphine diamorphine (heroin) oxycodone
Synthetic	fentanyl methadone pethidine tapentadol tramadol

Finally, the public should be privy to the legal and life-threatening consequences of driving while taking prescription opioids. In the UK, driving has been illegal if taking more than 220 mg of morphine or equivalent (i.e. blood limits of 80 µg/L of morphine and 500 µg/L of methadone) since 2015[17]. A high-quality case-control study (5,300 cases) found that drivers taking low doses of opioids (20-49 mg/day of morphine equivalents) had a 21% increased odds of road

trauma; those receiving moderate doses (50-99 mg/day) had a 29% increased odds, and those prescribed high doses (>100 mg/day) had a 42% increased odds of road trauma[18]. Prescribers should speak with their patients taking prescription opioids about how this law may affect their pain management strategy.

Public health recommendations

We recognise that there is a large body of research on public health messaging - the theory and process of health communication and behaviour change - which is beyond the scope of this commentary. Building trust between healthcare professionals and patients is at the heart of medicine. Trust influences how we respond to public health messages[19]. Nurses and doctors are the most trusted profession in Britain, closely followed by academics (professors) and scientists[20]. Therefore, nurses, doctors, academics, and scientists have an important role in delivering clear, simple, and consistent messages using the best available evidence to people with pain.

National organisations also play a significant role in educating the public. In September 2019, Public Health England (PHE) released a report on medicines associated with dependence, including opioids[21]. They found that 5.6 million people in England were dispensed at least one opioid in 2017-2018[22]. Between 2015 and 2018, the number of people taking opioids decreased (3.9%). However, half of all people prescribed opioids in March 2018 continuously took opioids for at least 12 months, and this long-term use of opioids had increased since April 2016. The PHE report provided recommendations, including increasing the availability of prescribing data, enhancing clinical guidance, improving information for patients and carers, and improving patient support. In October 2015, a similar report had been published by the British Medical Association (BMA), which also concluded with three key policy recommendations: 1) a national helpline for people prescribed drugs of dependence; 2) an increase in specialist support services; and 3) revised guidelines on the safe prescribing, management and withdrawal of prescription drugs[23]. None of the BMA's 2015 recommendations were actioned. Thus, urgent action is needed to implement such important recommendations, which should be coordinated and systematically employed so that people with pain are not left behind.

A coordinated data-driven approach

Across England, general practitioners (GPs), Clinical Commissioning Groups (CCGs), and specialist centres are working to reduce the volume of opioid prescribing and improve the management of people with chronic pain[24–26]. However, this is not standard practice across the country, and patients in low resource areas who are taking opioids may fall through the cracks. There may also be variations in how services are run, and there is minimal data on the benefits, harms, and cost-effectiveness of such services.

The publication of chronic pain guidelines by NICE in April 2021[27], the plan to reduce overprescribing by the Department of Health and Social Care[28], and the aim of NHS England and NHS Improvement to reduce high-dose opioid prescribing by 50% by March 2024[29], will likely increase initiatives to de-prescribe people on opioids. Yet resources for managing people taking opioids remain limited. Therefore, collaborative and coordinated efforts are needed to roll

out an evidence-based pain strategy that accounts for all patients in the UK, and which avoids relying on simple deprescribing as the sole outcome metric. Patients who have developed prescribed opioid dependence following inappropriate long-term opioid prescribing often require psychological support to wean and stop their opioids, with enforced opioid tapers found to be unhelpful and dangerous[30]. A data-driven approach using an open national registry of opioid safety initiatives to collect standardised patient outcome measures would allow for real-time evaluations and best practices to be established.

Conclusions

Mixed public health messages about the opioid crisis may be inevitable in a time of information overload. Clear public health messages that reach the public are needed to prevent a rise in the number of people on long-term and high doses of opioids. The four key messages we describe here should be transmitted to prescribers, such that new patients presenting with chronic pain should not have opioids initiated. When a patient's acute pain, treated with opioids, becomes chronic, a tapering plan is discussed and implemented. Moving forward, public organisations and individuals, including nurses, doctors, and scientists, should work together to get the right messages, to the right people, at the right time.

Box 1. Important public health messages to avert a UK opioid crisis

Message 1: Acute pain and chronic pain are different; acute pain is helpful and important (i.e. a functioning alarm system), while chronic pain is distressing and prolonged (i.e. a faulty alarm system).

Message 2: Opioids can benefit people with acute pain but should be avoided for people with chronic pain.

Message 3: Opioids have a range of side effects and harms, including death.

Message 4: People on high doses of opioids should speak with their prescriber about their ability to drive a motor vehicle.

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