



Commentary

Opioid use, chronic pain and deprivation

Martin Gulliford

School of Population Health and Environmental Sciences, King's College London, Addison House, Guy's Campus, London SE1 1UL, United Kingdom

ARTICLE INFO

Article History:

Received 10 March 2020

Accepted 25 March 2020

Available online xxx

Increasing use of opioid drugs is of growing international concern. In this issue of *eClinicalMedicine*, Macfarlane and colleagues [1] present data on self-reported use of opioid drugs for a large population-based sample of adults aged 40 to 69 years in Great Britain. Overall, 5.5% of participants reported taking opioid medicines, with 1.3% regularly taking strong opioids including tramadol, morphine, buprenorphine, oxycodone, fentanyl, or hydromorphone. Opioid use was associated with reported symptoms of chronic non-cancer pain. However, opioid drug use was also strongly patterned by socioeconomic conditions: 10.6% of participants leaving education at 16 years or under were taking opioids, as were 11.1% in the lowest category of household income (<£18,000 per year), 9.2% in the highest fifth of deprivation, and 33.7% of participants who were unable to work because of poor health.

These findings represent part of a wider pattern of increasingly widespread adult use of prescribed medicines that are associated with problems of dependence and withdrawal. In 2019, *Public Health England* [2] published a review of prescription drug dependence. As well as opioids for chronic pain, the review studied patterns of use of benzodiazepines, Z-drugs (non-benzodiazepine hypnotics), gabapentinoids and antidepressants. The review found that in 2017–18, 26% of the adult population had some exposure to these medicines including antidepressants (17% of the adult population), opioids (13%), gabapentinoids (3%), benzodiazepines (3%) and Z-drugs (2%). Long-term prescribing of these medicines was found to be widespread, with evidence of dependence and difficulties of withdrawal [2].

In the UK, there is wide geographical variation in the prescribing of opioid drugs, which suggests that optimal opioid prescribing practices are not always followed [2,3]. In an analysis of prescribing from OpenPrescribing.net, Curtis and colleagues [3] found that opioid prescribing, in terms of total oral morphine equivalency, varied nearly eight-fold from 52,700 mg per 1 000 registered patients to 416,000 mg per 1 000 registered patients. Curtis et al. [3] calculated that if all family practices reduced their opioid prescribing to the level of the lowest decile, then

overall 543 000 high dose opioid prescriptions could have been avoided. These observations draw attention to the difficulty of managing chronic pain in clinical practice and the frequent inappropriate use of opioid drugs for painful long-term conditions such as osteoarthritis [4]. In the US, the Centers for Disease Control and Prevention (CDC) developed guidelines for prescribing of opioids for chronic pain [5]. These emphasised that non-pharmacological interventions or non-opioid therapy should be preferred for chronic pain, with any use of opioids for acute pain being accompanied by plans for discontinuation and assessment of potential harms. In the UK, the National Institute for Health and Care Excellence (NICE) also concluded that 'there is little evidence that opioids are helpful for chronic pain' [6].

In the US, widespread prescribing of opioid drugs for chronic non-cancer pain has contributed to an opioid overdose epidemic that accounted for 64,000 deaths in 2016 alone [7]. Far from being primarily a clinical issue, opioid overdose deaths are concentrated in deprived communities that suffer from social and economic disadvantage [7]. The impacts of these disadvantages are amplified over the life-course and may find expression in symptoms of bodily pain and use of drugs with addictive potential [7]. In 2019, the National Institutes of Health and National Institute for Drug Abuse responded by initiating an ambitious intervention program, the HEALing Communities Study [8], which aims to implement evidence-based, multi-sectoral interventions to reduce opioid overdose deaths.

In this international context, the data presented by Macfarlane et al. [1] are a cause for concern. A recent commentary in the *Lancet Public Health* asked whether we are facing an opioid crisis in Europe? [9] Health services and health practitioners need to consider the scale of the widespread inappropriate prescribing of opioid drugs revealed by Macfarlane et al.'s study [1] and use this to inform more effective management for chronic pain in primary care. Inappropriate use of opioid drugs is rooted in inequality and public health specialists should increase their advocacy for marginalised and excluded groups, recognising the importance of less tangible health measures such as chronic pain, alongside established disease outcome measures.

Declaration of Competing Interest

None

Supplementary materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.eclinm.2020.100341.

DOI of original article: <http://dx.doi.org/10.1016/j.eclinm.2020.100321>.E-mail address: martin.gulliford@kcl.ac.uk<https://doi.org/10.1016/j.eclinm.2020.100341>2589-5370/© 2020 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license. (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

References

- [1] Macfarlane GJ, Beasley M, Jones GT, Stannard C. The epidemiology of regular opioid use and its association with mortality: prospective cohort study of 466 486 UK Biobank participants. *EClinicalMedicine* 2020. doi: [10.1016/j.eclinm.2020.100321](https://doi.org/10.1016/j.eclinm.2020.100321).
- [2] Public Health England. Dependence and withdrawal associated with some prescribed medicines. An evidence review. London: Public Health England; 2019. Source: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/829777/PHE_PMR_report.pdf accessed 10th March 2020.
- [3] Curtis HJ, Croker R, Walker AJ, et al. Opioid prescribing trends and geographical variation in England, 1998–2018: a retrospective database study. *The Lancet Psychiatry* 2019;6(2):140–50. doi: [10.1016/S2215-0366\(18\)30471-1](https://doi.org/10.1016/S2215-0366(18)30471-1).
- [4] Thorlund JB, Turkiewicz A, Prieto-Alhambra D, et al. Inappropriate opioid dispensing in patients with knee and hip osteoarthritis: a population-based cohort study. *Osteoarthritis and cartilage* 2020;28(2):146–53 [published Online First: 10/25]. doi: [10.1016/j.joca.2019.10.004](https://doi.org/10.1016/j.joca.2019.10.004).
- [5] Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *JAMA* 2016;315(15):1624–45. doi: [10.1001/jama.2016.1464](https://doi.org/10.1001/jama.2016.1464).
- [6] National Institute for Health and Care Excellence. Medicines optimisation in chronic pain. London: NICE; 2019. Available from: <https://www.nice.org.uk/advice/ktt21/chapter/Evidence-context#opioid-medicines-in-chronic-pain>.
- [7] Dasgupta N, Beletsky L, Ciccarone D. Opioid crisis: no easy fix to its social and economic determinants. *Am J Public Health* 2018;108(2):182–6 [published Online First: 12/21]. doi: [10.2105/AJPH.2017.304187](https://doi.org/10.2105/AJPH.2017.304187).
- [8] National Institutes of Health. HEALing communities study. Available from: <https://heal.nih.gov/research/research-to-practice/healing-communities>.
- [9] Verhamme KMC, Bohnen AM. Are we facing an opioid crisis in Europe? *The Lancet Public Health* 2019;4(10):e483–e84. doi: [10.1016/S2468-2667\(19\)30156-2](https://doi.org/10.1016/S2468-2667(19)30156-2).