

## 'Research Round Up- Analgesia prescribing in Primary Care

### Introduction

The last research round up provided you with an overview of some papers covering prescribing medication, indications and use in Attention Deficit Hyperactivity Disorder (ADHD). This month we will be covering guidance impacting on and the current practice of prescribing analgesia in a primary care setting. The review looks at 3 differing papers covering simple analgesia and guidelines, Current analgesia use in people with osteo-arthritis and falls, and patterns of analgesia prescribing in low back pain.

### Guidance impact on primary care prescribing rates of simple analgesia: an interrupted time series analysis in England

H Reichel, R Stanbrook, H Johnson, W Proto, M Shantikumar, P Bakhshi, S Hillman, D Todkill & S Shantikumar

This interrupted time series analysis published in the British Journal of General practice looks at the impact of published guidance on prescribing rates of simple analgesia in primary care settings in England. The authors are reviewing the impact of guidance published in March 2018 by NHS England which sought to reduce the number and range of primary care prescriptions for simple analgesia (among other medications) that could be purchased by the patient over the counter.

Their aim was to investigate what impact this guidance had had on primary care prescribing rates of the following medications: Oral paracetamol and ibuprofen and topical non-steroidal anti-inflammatory medication (such as Ibuleve). They state that a secondary aim is to try to elucidate whether any inequality has been created by implementing this guidance with specific reference to socioeconomic status and that ability to obtain these medications.

The authors used an interrupted time series methodology to analyse practice level data available from NHS digital from the period of January 2015 to March 2019 with the view of evaluating prescribing trends of simple analgesia before and after implementation of the 2018 guidance. The researchers looked for any association between prescribing and guidance based on the Index of Multiple Deprivation Scores and quantified using a multivariable Poisson regression. The authors submitted freedom of information requests to all CCG's in England to obtain required data for analysis.

The analysis of the data proved to be interesting with a clear reduction of 4.4% which achieved a level of statistical significance for the prescribing of the simple analgesics listed. This data was adjusted and corrected to allow for underlying time trends and seasonal influences. The data from the CCGs showed a high level of diversity in implementation of the guidance with no uniform adherence seen. It was noted however that practice level prescribing was higher in geographical areas which displayed a higher level of deprivation compared to those perceived to be more affluent according to standardised measures.

The authors conclude that the guidance has indeed been associated with a reduction in prescribing albeit a modest one, and this does not seem to have been associated with any creation of an additional layer of health inequality. They suggest that a measured and careful implementation of the guidance across the CCG's in England would be needed to see any direct and sustainable cost-effective saving for the NHS.

<https://bjgp.org/content/bjgp/71/704/e201.full.pdf>

Current use of analgesics and the risk of falls in people with knee osteoarthritis: A population-based cohort study using primary care and hospital records

A Taq, S, Gran & R D Knaggs

This population based study published in the Open Journal of Osteoarthritis and Cartilage sought to examine if there were any correlation between the current use of analgesia prescribed in a primary care setting for people receiving them for the management of their osteoarthritis associated knee pain. The aim was to see the incidence of falls and relate this to analgesic prescribing patterns.

The authors employed a retrospective study and accessed data that could be obtained from the UK Clinical Practice Research Datalink database to evaluate data from primary care including drug name, strength, dose and quantity prescribed. They further linked this to Hospital Episode Statistics data, specifically admissions and data collected during hospital stay. The data spanned the years 2000-2014 and the analgesics studied were antidepressants, antiepileptic drugs (AEDs), opioids, non-steroidal anti-inflammatory drugs (NSAIDs) and paracetamol. Participants were included if their knee osteoarthritis diagnosis had been in place for at least 12 months. Criteria for inclusion meant that 57,383 patients were eligible for this retrospective study. Analysis of this figure showed more female than male inclusions and three quarters of the participants were prescribed analgesics in the investigated classes within the first 12 months of diagnosis. Hazard ratios were examined in relation to fall risk and concurrent use of analgesia in the specified time period after diagnosis. Within the first 6 months of diagnosis these were reported as 1.46 (1.20, 1.78), 1.40 (0.91, 2.16), 2.40 (2.01, 2.85), 1.72 (1.43, 2.07), 1.98 (1.68, 2.33), while between 6 and 12 months after diagnosis, the HR (95%CI) were 2.68 (2.14, 3.36), 2.22 (1.70, 2.91), 1.96 (1.70, 2.26), 1.47 (1.21, 1.78), 1.92 (1.63, 2.26) for antidepressants, AEDs, opioids, NSAIDs and paracetamol, respectively and adjusted for important potential confounders.

The authors conclude that their data suggests that the current use of analgesics was associated with an increased risk of falls within one year of knee osteoarthritis diagnosis. They suggest that identification of patients in this category is necessary to target them with falls prevention programmes or interventions aimed to minimise falls in this population and that this would help to reduce safety concerns and promote better analgesia prescribing for this group of vulnerable patients.

<https://reader.elsevier.com/reader/sd/pii/S2665913121000285?token=4EE45752C1F0E357E821A4D456920F072A6AC19504030B622C3A2BF8B418F8C196D8508B70FCB61979F50FF8459FFD76&originRegion=eu-west-1&originCreation=20210903145701>

## Prescribing Patterns of Pain Medications in Unspecific Low Back Pain in Primary Care: A Retrospective Analysis

S Di Gangi , G Pichierri , S Zechmann, T Rosemann & A Plate

This retrospective analysis study published in the Journal of Clinical Medicine aims to describe the use of analgesics prescribed in a primary care setting for patients diagnosed with acute low back pain. The rationale was to investigate this prevalent condition and the prescribing trends of analgesia to gain a better understanding of current practice particularly with regard to opioid use. The study was conducted in Switzerland and was observational in nature. It included analysis of the prescriptions of 180 GPs and spanned the years 2009-2020. Patterns of pain medications (nonsteroidal anti-inflammatory drugs (NSAIDs), paracetamol, and opioids) as well as co-medications were analysed in patients with a LBP diagnosis. This diagnosis was categorised using the International Classification of Primary Care 2 (ICPC-2) diagnosis code system (WHO 2003). Inclusion criteria were applied and included over 18 years of age and at least one consultation for low back pain in the previous 12 months. This yielded 10,331 eligible inclusions with a mean age of 51.7 years and slightly more women than men were represented. Within this group 62.4% were prescribed a minimum of one analgesic agent, with 86% of those on NSAIDs and 22% opioid analgesics.

The authors also considered characteristics of the GP and patient within the review. This revealed that if the GP was self-employed had a bearing on prescribing as did patient characteristics of being male and the number of consultations attended. All of these characteristics led to a significantly higher chance of being prescribed analgesia. The review also showed that 36% of patients received co-prescribing of other drugs, including proton pump inhibitors (with NSAIDs) and muscle relaxants.

The authors conclude that analgesic medication was commonly prescribed for acute lower back pain but prescribing patterns were conservative and they found little evidence of over prescribing of strong opioids or use of concurrent or adjuvant prescribing of other medications.

<file:///C:/Users/nus776/Downloads/jcm-10-01366.pdf>

### Conclusion

Prescribing of different types of analgesia in a variety of clinical conditions in primary care is widespread and governed by guidelines, protocols and the experience of the prescriber involved. The non-medical prescriber working in primary care should be conversant with guidelines and protocols supporting prescribing of a wide range of analgesia for a variety of presenting conditions. It is also prudent to monitor prescribing practice especially with regard to opioid analgesia and decided when referral to a specialist practitioner is appropriate.

Additional reference

WHO (2003), *International Classification of Primary Care 2*, Family Practice. OUP