Results: A total of 21 studies evaluated the association of obesity with ADDs' prescription was identified. All except one were included in the MA which contributed to a total of 66 effect sizes from all investigated ADDs. The pooled estimate of obesity association with the prescription of ADDs including all groups was 1.19[0.85 -1.67]. A subgroup analysis showed a significant difference according to the type of ADDs ($p < .0001$). A positive significant association was found with glucagon-Like peptide receptor agonist (GLP1-RA), sodium glucose transporter 2 inhibitors (SGLT2-I), and metformin prescriptions (pooled estimate: 2.35 [1.54-3.59], 1.89[1.33-2.68], and 1.22[1.08-1.37], respectively). Whereas a negative significant association was found with sulfonylurea prescription (pooled estimate: 0.76 [0.62-0.93]). The pooled estimate of thiazolidinedione, dipeptidyl-peptidase 4 inhibitors, and insulin showed a non-significant association with obesity. None of the investigated variables showed significant influence on the overall result including stage of treatment and quality of study ($p > 0.05$).

Conclusion: Obesity is an important factor influencing ADDs' prescription. Patients with higher weight were more likely to get ADDs with weight losing or neutral effect as GLP1-RA, SGLT2-I, and metformin. This reflects some adherence of clinical practice to the variability in drugs' features as indicated from the consistent findings of obesity as a factor affecting ADDs' selection with the weight effect of ADDs. Yet, further studies are required because of limited number of studies examined each antidiabetic group.

References

1. American Diabetes A. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes-2020. Diabetes Care. 2020;43(Suppl 1):S98-S110.
2. Wilkinson S, Douglas I, Stirnadel-Farrant H, Fogarty D, Pokrajac A, Smeeth L, et al. Changing use of antidiabetic drugs in the UK: trends in prescribing 2000-2017. BMJ Open. 2018;8(7):e022768.

PRESCRIBING DIFFERENCES AMONG OLDER ADULTS WITH DIFFERING HEALTH COVER AND SOCIOECONOMIC STATUS: A COHORT STUDY

C. Prendergast[1], M. Flood[1], T. Fahey[2], and F. Moriarty[1], *1. School of Pharmacy and Biomolecular Sciences, RCSI University of Medicine and Health Sciences, Dublin, Ireland. 2. HRB Centre of Primary Care Research, Department of General Practice, RCSI University of Medicine and Health Sciences, Dublin, Ireland.*

Introduction: Ireland currently has a mixed public-private health system, where about 40% of individuals are entitled to free or low-cost public care based on their income and age (1). As health reforms move Ireland toward universal healthcare, it is important to understand divergent prescribing practice to patients with differing health cover and socioeconomic status.

Aim: To determine how prescribing patterns for patients aged ≥65 years in primary care in Ireland differ between public and private patients.

Methods: Data were collected during a larger study from 44 general practices in Ireland (2). Data were extracted from the patient management system relating to demographics and prescribing. Patients were included in the present analysis if they had prescriptions issued on at least two dates during the study period (2011-2018), and had demographics (age and sex) and prescription dates recorded. The cohort was divided between those with public health cover (via the GMS scheme, which over-represents socioeconomically deprived people) and those without. We calculated the standardised rate of prescribing for drug classes separately for GMS and non-GMS (private) patients. We pre-specified 12 drug classes of specific interest, due to their prevalence, inclusion in Ireland's Preferred Drugs Initiative, or potential for sub-optimal prescribing. We also analysed the number of medications, polypharmacy, and trends over time between groups, using multilevel linear regression adjusting for age and sex.

Results: The study included 42,456 individuals, 62% with GMS cover. The rate of prescribing for all pre-specified drug classes was higher for GMS patients compared to non-GMS patients. In all cases, the rate of prescribing was at least 1.6 times higher in the public group, with this being the minimum difference between groups in the rate of antibacterials for systemic use. We saw the greatest disparity in inhaled adrenergics combined with corticosteroids and/or anticholinergics where the rate of public prescribing was 2.25 times higher. The mean number of unique medications prescribed to GMS patients was 10.9 (SD 5.9), and 8.1 (SD 5.8) for non-GMS patients. Among GMS patients, 85% had polypharmacy (being on ≥5 medications) compared to 77% among the non-GMS patients, while 51% and 43% respectively had major polypharmacy (≥10 medications). The mean number of medications prescribed per person increased in both groups over time. The increase was steeper and more sustained in the public health cover group where the mean number of medications prescribed increased by 0.67 medications/year for GMS patients. The rate of increase was 0.13 (95%CI 0.13, 0.14) medications/year lower for non-GMS patients, a statistically significant difference.

Conclusion: Our study found a significantly larger number of unique medicines were prescribed to patients with public health cover, compared to those without. This disparity increased over time and was consistent within all drug classes analysed. This may be driven by socioeconomic deprivation rather than health cover, although a limitation is that we were unable to examine or adjust for these potential contributors separately. Our study provides new evidence that the growth in medication burden and polypharmacy among older adults is accelerated for those of lower socioeconomic status.

References

(1) Thomson S, Jowett M, Mladovsky P. The editors Observatory Studies Series No. 33 33 Observatory Studies Series Health system responses to financial pressures in Ireland.
(2) Pérez T, Moriarty F, Wallace E, McDowell R, Redmond P, Fahey T. Prevalence of potentially inappropriate prescribing in older people in primary care and its association with hospital admission: Longitudinal study. BMJ. 2018;363.

THE IMPACT OF THE COVID-19 PANDEMIC LOCKDOWN MEASURES ON THE PRESCRIBING TRENDS AND UTILISATION OF OPIOIDS IN THE ENGLISH PRIMARY CARE SETTING: A SEGMENTED-LINEAR REGRESSION ANALYSIS

O.N. Sindi[1], F.S. Alshaikh[1] and A. Kurdi[1], *1. Strathclyde Institute of Pharmacy and Biomedical Science (SIPBS), University of Strathclyde, Glasgow, UK*

Introduction: The emergence of the COVID-19 pandemic presented unprecedented challenges for healthcare systems,

including patients with chronic pain. The COVID-19 lockdown has resulted in limited access to most of the conventional chronic pain management services. Subsequently, changes in opioid utilisation could be expected (1).

Aim: To assess the impact of the first COVID-19 lockdown on opioid utilisation using aggregated-level, community dispensing dataset covering the whole English population.

Methods: This repeated cross-sectional study applied a segmented-linear regression analysis to monthly dispensed opioid prescriptions using the Prescription Cost Analysis database (PCA), from March 2019-March 2021. Opioid utilisation was measured using number of items dispensed/1000 inhabitants and Defined Daily Dose (DDD)/1000 inhabitants/day during 12-months pre and post the COVID-19 lockdown introduced in England in March 2020, stratified by strong and weak opioids.

Results: There were insignificant changes in the number of items dispensed/1000 inhabitants trend pre-COVID-19 lockdown for total, strong, and weak opioids (β1=-0.064, β1=-0.055, β1=0.009, $p>0.05$, respectively). Immediately post-lockdown, there were small increases in the level of total, strong, and weak opioids (β2=0.494, β2=0.448, β2=0.045) albeit non-significant. There was a non-significant decline in the trend post-lockdown for all opioids' classes.

Similarly, a non-significant reduction in the DDD/1000 inhabitants/day baseline trend was observed pre-lockdown for total, strong, and weak opioids (β1=-0.028, β1=-0.027, β1=-0.001, $p>0.05$, respectively). There were immediate increases in the level post-lockdown (β2=0.386, β2=0.360, β2=0.026, $p>0.05$) for total, strong, and weak opioids respectively. Subsequently, a decline in the trend post-lockdown for all opioids' classes was observed.

Discussion/conclusion: Unexpectedly, the study's findings showed an overall stable trend in the utilisation of opioids pre and post COVID-19 in England. The stable trends observed in our study could be due to multiple factors. Firstly, patient level data and information about the specific indication were unavailable in the PCA dataset. This is a limitation as we were unable to examine the trend between the existing and new (incident) patients to obtain more accurate data for opioid utilisation. Moreover, the guidelines and strategies that have been implemented with regard to opioid prescription in the UK (2), to help regulate and minimize the harm from their use in chronic pain management may have had an impact.

To our knowledge, this is the first study to estimate and quantify the impact of the COVID-19 pandemic on opioid utilisation using a segmented regression analysis. This was facilitated by the study focusing on opioid prescription over a 25-month period, i.e. 12 months either side of the pandemic, to predict a trend line for opioid prescription. This duration was beneficial as it gave us adequate time to investigate if COVID-19 had affected prescribing volumes. The limitations include lacking patient level data and specific indications for prescribing opioids. Also, over-the-counter codeine products were not included in the study as the datasets we used included only prescription medicines in ambulatory care

Our findings support the further monitoring and investigation of patient level data to explore the impact of the pandemic on opioid prescription and to continue promoting the safe and effective use of opioids.

References

(1) Shanthanna H, Strand NH, Provenzano DA, et al. Caring for patients with pain during the COVID –19 pandemic: consensus recommendations from an international expert panel. *Anaesthesia*. 2020;75(7):935-944. doi:10.1111/anae.15076.

(2) Recommendations | Controlled drugs: safe use and management | Guidance | NICE [Internet]. Nice.org.uk. 2021 [cited 9 August 2021]. Available from: https://www.nice.org.uk/guidance/ng46/chapter/Recommendations

Oral papers 7: Community pharmacy workforce development

VIEWS AND PERCEPTIONS ON THE DESIGNATED PRESCRIBING PRACTITIONER ROLE, BARRIERS, AND FACILITATORS FOR ITS IMPLEMENTATION IN COMMUNITY PHARMACY: A THEORY-BASED QUANTITATIVE STUDY

T. Jebara[1], T. McIntosh[1], F. Stewart[2], R. Bruce[2], A. Osprey[3] and S. Cunningham[1], *1. School of Pharmacy and Life Sciences, Robert Gordon University, Aberdeen, UK.*
2. NHS Education for Scotland, Glasgow, UK.
3. Community Pharmacy Scotland, Edinburgh, UK

Introduction: Scottish Government aims to increase numbers of pharmacist independent prescribers (IP) in community to improve healthcare access. This includes utilising qualified IPs as Designated Prescribing Practitioners (DPP) to increase capacity to supervise pharmacists on IP courses.

Aim: To investigate views and perceptions of practice-based stakeholders and identify potential influences on DPP implementation for Scottish community pharmacists (CP)

Methods: A theory-based cross-sectional online survey of stakeholders involved in DPP role implementation (e.g. Directors of Pharmacy, Prescribing Leads, IP qualified CPs) was employed. Participation invites were shared with Scottish health boards and CP organisations via email and social media. Snowball sampling was used so no key individual was omitted. The questionnaire was informed by Royal Pharmaceutical Society (RPS) DPP Framework (1) and Consolidated Framework for Implementation Research (2). It examined views and awareness of DPP role, implementation drivers, and obstacles. The tool was reviewed for credibility and dependability then piloted. Data were analysed descriptively.

Results: Ninety-nine responses were received (NB: Since this was a national survey of multiple stakeholders without a defined sample list, response rate was indeterminate). Two-fifths (n=39, 40.2%) were community pharmacists with majority qualified for more than 10 years (n=76, 76.8%). Only 18 had previous involvement with IP courses. The table shows awareness and views of the role based on RPS framework. Respondents had positive attitudes to DPP implementation with the majority supporting it (72, 73.5%) and believing that its advantages outweigh any disadvantages (74, 75.5%). Facilitators of successful implementation were having clearly defined leadership roles (89, 90.9%), piloting (85, 87.6%), and incentives (65, 88.8%). Drivers for uptake of role included improving patient care (94, 96%) and the profession (91, 92.8%), self-development (91, 92.8%), developing individual pharmacists (89, 90.8%), payment (77, 79.4%), and being recognised by peers/employers (73, 75.2%).