



Please cite the Published Version

Waheed, Unaiza, Stedman, Mike, Davies, Mark, Walther, Andreas, Solomon, Emma, Ollier, Bill  and Heald, Adrian H  (2022) National level prescribing of psychotropic medication in primary care during the COVID-19 pandemic in England: potential implications for cardiometabolic health. *Cardiovascular Endocrinology and Metabolism*, 11 (4). e0270 ISSN 2574-0954

DOI: <https://doi.org/10.1097/XCE.0000000000000270>

Publisher: Ovid Technologies (Wolters Kluwer Health)

Version: Published Version

Downloaded from: <https://e-space.mmu.ac.uk/634956/>

Usage rights:  [Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)

Additional Information: This is an open access letter to the editor which first appeared in *Cardiovascular Endocrinology and Metabolism*

Enquiries:

If you have questions about this document, contact openresearch@mmu.ac.uk. Please include the URL of the record in e-space. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from <https://www.mmu.ac.uk/library/using-the-library/policies-and-guidelines>)

Correspondence

Cardiovascular Endocrinology & Metabolism 2022, 11:e0270;
doi: 10.1097/XCE.0000000000000270

National level prescribing of psychotropic medication in primary care during the COVID-19 pandemic in England: potential implications for cardiometabolic health

Unaiza Waheed^a, Mike Stedman^b, Mark Davies^b, Andreas Walther^c, Emma Solomon^d, Bill Ollier^e and Adrian H. Heald^{a,f}, ^aDepartment of Diabetes and Endocrinology, Salford Royal Hospital, Salford, ^bRes Consortium, Andover, UK, ^cCognitive Behavioural Therapy and Behavioural Medicine, Psychotherapeutic Center of the University of Zurich, The University of Zurich, Zurich, Switzerland, ^dDepartment of Clinical Psychology, Salford Royal Hospital, Salford, ^eFaculty of Science and Engineering, Manchester Metropolitan University and ^fThe School of Medicine and Manchester Academic Health Sciences Centre, University of Manchester, Manchester, UK

Correspondence to Adrian H. Heald, DM, Department of Diabetes and Endocrinology, Salford Royal Hospital, Salford, M6 8HD, UK
E-mail: adrian.heald@manchester.ac.uk

Received 24 July 2022 Accepted 6 August 2022

The COVID-19 (SARS-CoV-2) pandemic has had a global impact on healthcare provision. Changes in prescribing of commonly used medications can be used as a marker for diagnoses of new patients as well as measuring service levels for patients in primary care [1].

The consequences of the COVID-19 pandemic in relation to incident cases of depression and other mental health issues are well documented [2–4]. How much the prescribing of specific psychotropic medications was impacted by the pandemic has been less explored. This is relevant from a cardiovascular point of view as untreated depression and untreated psychosis are associated with a significantly elevated cardiovascular event rate [5,6].

We here compare prescribing data for psychotropic medication with common physical health medications in England before/during the COVID-19 pandemic.

Primary Care Prescribing data for different major national formulary classes of drug from March 2017 to February 2022 (5 years) were considered [7]. In order to capture the impact during periods of social restriction of access to health services for new diagnoses/existing conditions, repeat prescriptions and episodic prescribing were included with account taken of historical trend.

The pre-pandemic prescriptions issued each month from March 2017 to February 2020 were linearly extrapolated

forward to give estimates over the pandemic period to give an expected annual growth (EAG). From this the monthly average expected prescriptions for the pandemic period March 2020–February 2022 were calculated and compared to the actual average. The change in share of total prescriptions of the main antidepressant medications was evaluated to show relative change.

As comparative baseline, it was found that physical health medications had lower monthly prescription during the pandemic with antibiotic (which are episodic) –12.2% (EAG –1.4%), and the most repeat prescriptions for bronchodilators –1.8% (EAG 0%), hypertension and heart failure –1.3% (EAG 1%), and lipid regulating minimally less at –0.1% (EAG 2.3%). Mental Health monthly prescribing increased with hypnotics/anxiolytics by 0.6% (EAG –2.4%), antipsychotics by 0.5% (EAG 2.7%), and antidepressants up by 0.3% (EAG 4.9%). The profile of the three main antidepressant medications was: sertraline increased from 22.7 to 24.6% (+8%), mirtazapine increased from 13.0 to 13.6% (+5%), and venlafaxine stayed at 6.3% (0%).

The pandemic effect on psychotropic prescribing was not as large as might be expected, possibly impacted by limited access to services [8]. The fall in antibiotic prescribing may similarly reflect the impact of reduced access to services, limiting episodic prescribing.

The increase in anxiolytic/hypnotic and antidepressant prescribing above trend links to pandemic effects on anxiety/worry [2–4]. However, the increase is far from what might be expected, on the basis of what is known about the way that the COVID-19 pandemic resulted in increased rates of anxiety and depression in the UK population as elsewhere in the world [2,3,4]. The slight increase in antipsychotic prescribing likely relates to the use of antipsychotics in care home settings [9] and is additive to the trend before the pandemic for increased prescribing of antipsychotic medication in England [10].

Should our assertion that the increase in antidepressant prescribing be much less than anticipated, the inference is that depression has been underdiagnosed in England and possibly elsewhere. If untreated, depression is associated with an adverse cardiovascular profile [5,6] and poorer life/socioeconomic/health outcomes overall [11].

Going forward, an evaluation of individuals' experiences might illuminate why we have observed these prescribing trends. It is hoped that we can use the opportunity created by the COVID-19 pandemic to enable sustained, efficient, and equitable delivery of mental healthcare

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

with attendant benefits for cardiovascular outcome in those affected by enduring mental health conditions [12].

Acknowledgements

All authors contributed equally and substantially to the cocreation and writing of this paper.

Data availability statement: the data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of interest

There are no conflicts of interest.

References

- 1 Heald AH, Stedman M, Davies M, Livingston M, Taylor D, Gadsby R. Antidepressant prescribing in England: patterns and costs. *Prim Care Companion CNS Disord* 2020; **22**:19m02552.
- 2 COVID-19 Mental Disorders Collaborators. Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *Lancet* 2021; **398**:1700–1712.
- 3 Mansfield KE, Mathur R, Tazare J, Henderson AD, Mulick AR, Carreira H, et al. Indirect acute effects of the COVID-19 pandemic on physical and mental health in the UK: a population-based study. *Lancet Digit Health* 2021; **3**:e217–e230.
- 4 Jacob L, Smith L, Koyanagi A, Oh H, Tanislav C, Shin JI, et al. Impact of the coronavirus 2019 (COVID-19) pandemic on anxiety diagnosis in general practices in Germany. *J Psychiatr Res* 2021; **143**:528–533.
- 5 Halaris A. Inflammation-associated co-morbidity between depression and cardiovascular disease. *Curr Top Behav Neurosci* 2017; **31**:45–70.
- 6 Hayes JF, Marston L, Walters K, King MB, Osborn DPJ. Mortality gap for people with bipolar disorder and schizophrenia: UK-based cohort study 2000-2014. *Br J Psychiatry* 2017; **211**:175–181.
- 7 OpenPrescribing.net, Bennett Institute for Applied Data Science. University of Oxford. [Accessed 22 July 2022]
- 8 Chudasama YV, Gillies CL, Zaccardi F, Coles B, Davies MJ, Seidu S, Khunti K. Impact of COVID-19 on routine care for chronic diseases: a global survey of views from healthcare professionals. *Diabetes Metab Syndr* 2020; **14**:965–967.
- 9 Howard R, Burns A, Schneider L. Antipsychotic prescribing to people with dementia during COVID-19. *Lancet Neurol* 2020; **19**:892.
- 10 Heald AH, Stedman M, Farman S, Khine C, Davies M, De Hert M, Taylor D. Links between the amount of antipsychotic medication prescribed per population at general practice level, local demographic factors and medication selection. *BMC Psychiatry* 2020; **20**:528.
- 11 Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, Ustun B. Depression, chronic diseases, and decrements in health: results from the World Health Surveys. *Lancet* 2007; **370**:851–858.
- 12 Moreno C, Wykes T, Galderisi S, Nordentoft M, Crossley N, Jones N, et al. How mental health care should change as a consequence of the COVID-19 pandemic. *Lancet Psychiatry* 2020; **7**:813–824.

DOI: 10.1097/XCE.0000000000000270