Letter to the Editor

Questioning the Accuracy and Interpretation of Dispensed Patterns of Dental Emergency Medicines

We thank Joon Soo Park et al for their study of dispensed emergency medicines prescribed by dentists from 1992 to 2018. This study used data provided by the Department of Health on dental emergency medicines dispensed under the Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme (RPBS). Although this study is interesting, there are several statements about their findings that we believe are inaccurate.

First, PBS and RPBS data only apply to dispensed medicines prescribed for individually named patients. Although dentists occasionally manage medical emergencies in community dental practice, they do not use the patient’s own medication for this purpose and do not use the PBS/RPBS to procure them. They purchase a stock of emergency medicines for the practice either from pharmacies or from a wholesaler as a practice expense. Dentists do not have access to PBS Prescribers Bag allowances, whereas medical and nurse practitioners do. Therefore, this is the likely reason for the low prescription numbers of dental emergency medicines on the PBS/RPBS, rather than low use per se. While the authors acknowledged that their data did not include medicines obtained outside the PBS, the emphasis of this article should have been to recommend that dentists gain access to PBS “prescriber’s bag” allowances, so that dentists can obtain medicines for emergencies in the same way doctors and nurses do. It is inappropriate, and contrary to PBS regulations, to write a prescription for medicines that will be stocked in the practice. This analysis of the dispensed emergency medicines on the PBS should have highlighted that this is not an appropriate way for dentists to obtain emergency medicines for use in the clinic rather than tacitly endorse the current system.

Secondly, there are incorrect statements regarding the availability of medicines. Park et al state that “Nevertheless, the user-friendly adrenaline is available under Pharmacist-Only medicines, which means prescription.” This is incorrect as the definition of a pharmacist-only medicine, according to the Poisons Standard (4) is “Pharmacist Only Medicine – Substances, the safe use of which requires professional advice but which should be available to the public from a pharmacist without a prescription.” They also report that emergency medicines such as glyceryl trinitrate and salbutamol spray are available on prescription only, but this is incorrect; they are Schedule 3 pharmacist-only medicines. Regardless of the scheduling of these medicines, they are all available for wholesale purchase by a dentist for use as stock in the clinic and are normally obtained in that manner.

Park et al also describe that hydrocortisone injection would only be used in a hospital setting for adrenocorticotid insufficiency and that “hydrocortisone is unable to be prescribed under the PBS subsidy.” In fact, 2 strengths of hydrocortisone injection are currently included in the PBS dental items. Naloxone is used to manage opioid overdoses. There was only 1 dental prescription dispensed for naloxone (1992-2018), and the authors stated that “Dentists can prescribe opiate and opiate-like containing medicines. Considering the emergency problems arising due to the opioid crisis as a result of misuse and inadequate training, there has to be a way to prevent morbidity and mortality due to adverse reactions associated with prescription of these drugs.” Although we agree that dentists do frequently prescribe opioid medications for management of acute dental pain, it is unclear what the authors are suggesting dentists could do with emergency drugs to “avoid emergency problems.” Dentists are unlikely to be encountering opioid overdoses, so do not require naloxone in the practice. Opioid overdoses may occur with dental opioid prescriptions, but prescribing of naloxone for such circumstances is outside most dentists’ scope of practice. Australia’s opioid epidemic is a major public health issue. The best way for dentists to prevent morbidity and mortality because of opioid overuse and misuse is by appropriate prescribing, patient education, establishing a true therapeutic need, and prescribing minimal quantities to reduce the number of leftover pills.

Lastly, the methodology of this study is questionable because only current PBS codes were used. To obtain an accurate recording of all PBS dental medicines, historical PBS item codes should be used as well. For example, the “counts” for naloxone in their study are different to other studies of dental prescribing of emergency medicines in Australia. This difference is likely attributed to the failure to search archived PBS schedules for the previous codes to obtain an accurate recording of all dispensed items. This is a tedious but necessary process to capture all prescribing. The total count of dispensing of emergency medicines would still be low, but it is precisely because they are low that it is imperative to capture all prescriptions to reflect the title of this study. We also note that the table title refers to data from states, but there was only a national cumulative count. In addition, the correct reporting format for pharmacoepidemiologic studies is the RECORD-PE, and not the STROBE format, as presented in this article.

Given the number of inaccuracies and concerns about the methodology, we believe that it would be ideal for this article be corrected and rewritten to ensure accurate reporting and...
interpretation of the use of emergency medicines by dentists in Australia.

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Conflict of interest

None disclosed.

REFERENCES

1. Park JS, Kruger E, Tennant M. Dispensing patterns of emergency medicines prescribed by Australian dentists from 1992 to 2018 - a pharmacoepidemiology study. Int Dent J 2020;70(4):254–8.
2. Australian Government Department of Health. About the PBS. Available from: http://www.pbs.gov.au/info/about-the-pbs. Accessed 30 August 2020.
3. Page E, Kemp-Casey A, Korda R, Banks E. Using Australian Pharmaceutical Benefits Scheme data for pharmacoepidemiological research: challenges and approaches. Public Health Res Pract 2015;25(4):e2541546.
4. Teoh L, Stewart K, Marino R, McCullough M. Part 2. Current prescribing trends of dental non-antibacterial medicines in Australia from 2013 to 2016. Aust Dent J 2018;63(3):338–46.
5. Australian Government. Federal Register of Legislation 2019. Available from: https://www.legislation.gov.au/Details/F2019L01197. Accessed 30 August 2020.
6. Australian Department of Health. The Pharmaceutical Benefits Scheme, Browse by Dental Items. Available from: http://www.pbs.gov.au/browse/dental. Accessed 30 August 2020.
7. Expert Advisory Committee. Australian Medicines Handbook. Adelaide, South Australia: AMH; 2019.
8. Australian Institute of Health and Welfare. Opioid harm in Australia and comparison between Australia and Canada. Canberra, Australia: AHW; 2018.
9. Teoh L, Hollingworth S, McCullough MJ. Dental opioid prescribing rates after the up-scheduling of codeine in Australia. Sci Rep 2020;10:8463.
10. Australian Government Department of Health. Pharmaceutical Benefits Scheme publications archive. Available from: https://www.pbs.gov.au/info/publication/schedule/archive. Accessed 30 August 2020.
11. Equator Network. The reporting of studies conducted using observational routinely collected health data statement for pharmacoepidemiology (RECORD-PE). Available from: https://www.equator-network.org/reporting-guidelines/record-pe/. Accessed 30 August 2020.

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