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| **Identifying high risk respiratory patients through longitudinal pharmacy dispensing data** |
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| **Introduction/Aim:** On average, Australians visit a community pharmacy 18 times per year, making community pharmacists the most frequented health care professional in the patient chronic disease journey. During these community pharmacy interactions there should be both an opportunity and expectation that pharmacists will ensure the safe and effective use of respiratory medications. Currently there is no standard framework by which this can be achieved and most interactions are ad hoc and at the discretion of the pharmacist and patient. This study aimed to describe the potential pharmacist scope of practice around respiratory medication safety, as identified through longitudinal dispensing records.  **Methods:** An observational study of de-identified pharmacy dispensing data (2011 – 2019) from Nostradata (i.e., a database of patients’ pharmacy dispensing records across different pharmacies; covering 80% of pharmacies nationally) was undertaken. Inclusion criteria for the dataset was dispensing records with at least a medication for asthma/COPD across a minimum of 5 years of the dispensing record. The data extracted includes demographic, doses, brands and dates of medication dispensing. Data were analysed descriptively.  **Results:** Dispensing records from a total of 26 million patients was extracted, of which 10% (n=3,837,950) were dispensed medication(s) for asthma/COPD (median age 47.5 years). The data covered a dispensing period of 5-8 years for each individual, with an average of 6 pharmacies from which medications were dispensed/individual. Seventy six percent of patients were dispensed at least one SABA on prescription; 35% were dispensed ≥ 3 SABA/year, while 38% had at least one oral corticosteroids (OCS) dispensed; 49% reaching a cumulative dose of >1g OCS over the dispensing period.  **Conclusion:** This is the first population-based study that utilised longitudinal data in pharmacy dispensing records to explore the potential to elicit high risk medication dispensing. An algorithm within the pharmacy dispensing system should be developed to assist pharmacists in identifying high risk patients in real time.  **Grant Support:** Investigator Sponsored Study, AstraZeneca Australia Pty Ltd. |