Antipsychotic drug consumption in Portugal: a nationwide trend from 2008 to 2017

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**Background** Antipsychotics are useful in treating several mental disorders but are associated with a wide range of adverse events. In Portugal, a worrisome increase from 5 to 14 DDD per 1000 inhabitants per day (+171%) was observed in the consumption of these medications from 2000 to 2012. However, there are no up-to-date data available on this topic.

**Purpose** Our aim is to analyse the trend of antipsychotic drug consumption in Portugal from 2008-2017.

**Method** Data on antipsychotic consumption was extracted from the regulatory agency (INFARMED) database, which gathers information on dispensed medicines in community pharmacies in mainland Portugal reimbursable through the national health system or subsystems in place. Consumption data were obtained for the 10-year period (2008-2017). Annual data on the size of the population was obtained from the Portuguese Institute of National Statistics, stratified by regions. The trend in antipsychotic drug consumption was expressed in DDD per 1000 inhabitants per day (DHD). Analysis was made by pharmacological group (typical and atypical), active substance and chemical structure (ATC codes). Results were analysed globally and stratified by region (Norte, Centro, Lisboa, Alentejo and Algarve).

**Findings** Antipsychotic drug consumption revealed an increase of 157.6 to 259.64 DHD per day (+64%). Typical antipsychotics (TAP) continue to be less consumed in 2017 (62.78 DHD) compared to atypical antipsychotics (AAP), with 196.66 DHD. The AAP/TAP ratio increased 3 times during the analysed decade. Quetiapine (highest rate: + 4.5), Olanzapine (+2.5), Paliperidone (+2.1) and Aripiprazole (+1.0) were the medicines in which consumption increased the most. Quetiapine was the most consumed antipsychotic drug in this 10-year period, followed by Haloperidol, Olanzapine and Risperidone. Analysing by chemical structure, Diazepines, oxazepines, thiazepines and oxepines (+69.5%) and other antypsichotics (+31.8%) are the groups with the highest consumption between 2008-2017. Stratifying by region, results may suggest differences in TAP's consumption trends, which could be explained by prescribing patterns or specific population characteristics unidentified by our data. For AAP there were no significant differences between regions.

**Conclusion** Antipsychotic consumption is still increasing in Portugal, since the last report released from INFARMED, with AAP being the most consumed group. However, the presented data doesn't enable the evaluation of relevant patients' characteristics, namely their age group. Many studies reinforce the need for a safety assessment of antipsychotics in population subgroups, especially in the elderly, justified by a differential risk. This previous assessment is important to justify the need for interventions aimed at decreasing inappropriate AP use in Portugal.