

DRUGS PRESCRIPTION AS A MEASURE OF CHRONICITY IN UNDOCUMENTED MIGRANTS

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Background. The unrestrainable phenomenon of migration is rapidly changing the composition of our population. This is mainly due to the growing number of undocumented people escaping from wars, persecution or poverty. Very few data on the health status of these persons are available, since they find many obstacles in accessing health care, unless in emergency conditions. Moreover, for understandable reasons, they generally refuse to be registered and so they become virtually "invisible" to common methods of epidemiological investigation. Nevertheless, some preliminary data (obtained by us and others) seem to point to a high prevalence of chronic cardiovascular and metabolic diseases. We have now expanded our study to a larger number of undocumented migrants. This has been done through the analysis of the medicines they receive from Italian non-governmental organizations (NGOs) supported by the Banco Farmaceutico, an Italian charitable nonprofit pharmaceutical organization. This method is increasingly used in pharmacoepidemiological studies and it has also been recommended by the WHO. It is useful when a clear correlation exists between a given drug (or group of drugs) and a certain disease, and when prescriptions are necessary rather than discretionary.

Methods. We analysed the databases of the NGOs containing the records of all drugs prescribed to 12,386 undocumented migrants from January 1st, 2013 to December 31st, 2016. Drugs were grouped according to the Anatomic Therapeutic Chemical (ATC) classification and their quantities calculated as daily defined dose (DDD)/1000 patients/day. Patients were stratified according to sex, age and ethnicity. Drugs were arbitrarily classified in three groups: those used to treat chronic conditions (e.g. diabetes and hypertension), those for acute diseases (e.g. drugs for infectious diseases), and those used in both situations (e.g. diuretics). As a second step of our study we developed and validated an algorithm to identify the subjects with the diagnosis of type 2 diabetes, distinguishing them from those with type 1 diabetes, on the basis of demographic data and use or not of insulin.

Results. In the whole population, drugs used for chronic conditions were significantly more frequent than those for acute diseases (154.2 ± 45.9 vs 51.3 ± 18.4 DDD/1000 patients/day, $P < 0.02$) and those for both acute and chronic conditions (57.9 ± 12.8 DDD/1000 patients/day, $P < 0.02$); this difference remained significant after correction for age and gender and was present in all the ethnical groups, although with some differences: East Europeans and Asians requiring more chronic medications than South Americans, Sub-Saharan and North Africans ($P < 0.05$). Five ATC groups were more dispensed and accounted for 60% of chronic medications. Significant differences were detected among the different subgroups: Asians and East Europeans showed the greatest need for anti-hypertensive drugs; antidiabetics were more often distributed to Asians, while lipid modifiers and anti-thrombotics were mainly prescribed to East Europeans. Finally, our algorithm correctly identified all the patients ($n=660$) with type 2 diabetes.

Conclusions. Chronic non-communicable diseases in undocumented migrants need to receive due attention to be appropriately treated in such a frail population. We need to deal with this problem urgently and effectively, with the conscience that soon it will exert a significant impact on our National Health Service. Our results, if confirmed by larger studies, could be the basis for implementing appropriate and patient-oriented public health policies.

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