"A standardization model by equivalent patient to control outpatient pharmaceutical expenditure"

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Introduction: The outpatient pharmaceutical expenditure in Comunitat Valenciana represents about 27% of the total health expenpenditure. With the obvious premise that public resources are limited and must be optimized, it is necessary to design rational tools which ease policymakers decisions in the health care system field.

Objective: The aim of this paper is to introduce the concept of "equivalent pacient" in the standardization of outpatient pharmaceutical expenditure, considering in its design several sociodemographical variables in order to supersede the previous model which just considered the "right to pharmacy" (free pharmacy and pharmacy with contribution) for adjusting the outpatient pharmaceutical expenditure.

Material and methods: We considered variables as age, sex, right to pharmacy and nacionality to elaborate the concept of equivalent patient which allows a better adjusted standardization of the outpatient pharmaceutical expenditure in a level of analysis for quota assigned to physicians.

In order to verify the significance of the considered variables in the pharmaceutical consumption patterns, a lineal regression analysis was applied to real data. The data belongs to the prescription database of COF (Oficial Colleges of Pharmacy) in the Comunitat Valenciana (10 milion prescriptions per month) and also to the SIP (Population Information System) database (5 milion people per month) throughout 2010.

Results: We applied the concept of equivalent patient to the standardization of outpatient pharmaceutical expenditure to real data from Comunitat Valenciana. By applying this method we obtained 160 groups of consumption with weights from 4,39 to 0,10 equivalent patients. In the previous model, the standardization generated just 2 groups of consumption (free pharmacy and pharmacy with contribution), where its weights were 3,07 and 0,32 respectively.

Conclusions: The results of this study allow us to conclude that the equivalent patient concept is able to standardize the outpatient pharmaceutical consumption in a better adjusted way than the previous model. Therefore, we obtained a tool capable to improve the construction of Pharmaceutical Expenditure Indicators, which are essential for the design of measures aimed to incentive the rational use of drugs. In a micro level of analysis, this standarization can be use for the construction of an individualize indicator useful to stablish economic incentives aimed to encourage good performance of physicians in the prescription field.