ISoP

ISoP 2018

INTERNATIONAL SOCIETY of PHARMACOVIGILANCE

18TH ANNUAL MEETING

11-14 November 2018 • CICG, Geneva, Switzerland

Pharmacovigilance without borders

Impact of the doctor-patient relationship on non-compliance with pharmacological medical prescription in chronic disease. A cross-sectional study

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Introduction

In developed countries chronic disease is currently the main reason why people demand health care [1]. Negative effects of non-compliance with medical prescription reduce the clinical benefits of the medication, leading in most cases to the use of unnecessary treatments, hospitalization and death [2]. Factors associated with non-compliance with medical prescription may be related to: the doctor-patient relationship, the treatment, the health system, the health condition and the socioeconomic situation.

Methods

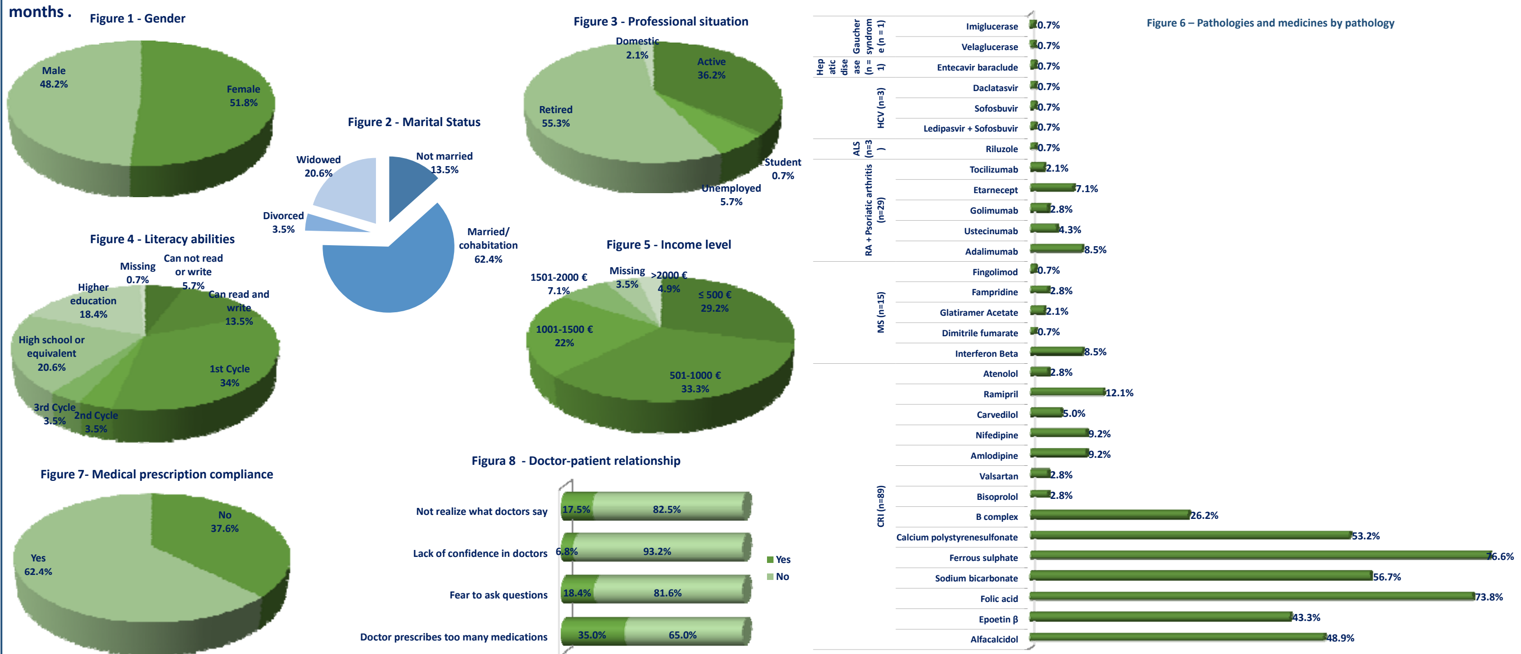
A cross-sectional design was developed based on a random sample of 141 patients with pathologies covered by Portuguese Exceptional Legislation. To collect the data, it was applied a questionnaire by interview between July 2017 and April 2018. The questionnaire included socioeconomic variables and a list of non-compliance factors developed by Cabral & Silva (2010) [3]. The IBM SPSS 24.0 software was used to analyse the data. Besides descriptive statistics, the data analysis involved the estimation of a logistic regression model, at a confidence level of 95%.

Aim

To assess the impact of the doctor-patient relationship on non-compliance with pharmacological medical prescription in chronic disease.

Results

Chronic patients were aged between 20 and 95 years old, with a mean age of 65.3 years (SD = 19.39). As shown in Figure 1, most patients were female (51.8%), married or lived in marital cohabitation (62.4%) (Figure 2), retired (55.3%) (Figure 3), and had up to the 3rd cycle of schooling (61%) (Figure 4) and an income up to € 1,000 (62.5%) (Figures 5). These patients suffered from Chronic Renal Insufficiency (CRI) (n=89), Rheumatoid Arthritis (RA) and Psoriatic Arthritis (PA) (n=29), Multiple Sclerosis (MS) (n=15), Amyotrophic Lateral Sclerosis (ALS) (n=3), Hepatitis C Virus (HCV) (n=3), Hepatic disease (HD) (n=1)) and Gaucher Syndrome (GS) (n=1) (Figure 6). The active substances most dispensed, in hospital pharmacy, were: ferrous sulphate (76.6%), folic acid (73.8%), calcium polysterenonosulfonate (53.2%), alfacalcidol (48.9%), epoetin β (43.3%), complex B (26.2%) for CRI; adalimumab (8.5%), etarnecept (7.1%) and Ustecinumab (4.3%) for RA and PA; interferon B (8.5%) for MS (Figure 6). Modal treatment time was 24 months .



The main reason for non-compliance with pharmacological prescription was “the doctor prescribes too many medications” (35%). The second most mentioned reason was “the fear to ask questions”(18.4%), followed by "not realize what doctors say" (17.5%) and the “lack of confidence in doctors” (6.8%) (Figure 8). Over 30% of patients do not always follow therapy as prescribed by their doctor (37.6%) (Figure 7). A patient who does not consider that “the doctor prescribes too many medications” has a lower risk of non-compliance with the pharmacological prescription [OR= 0,262; CI (95%): 0,112-0,617] (Table 1).

Table 1 - Results of the binary logistic regression model

Dependent variable: Medical prescripton compliance [Y=0, No (37.6%); Y=1, Yes (62.4%)]					
Variables	β	Standard deviation	Significance	Exp (B)/OR	CI(95%)
Constant	1.001	0.276	0.000		
Doctor prescribes too many medications	-1,338	0.436	0.002	0.262	0,112-0,617
Log likelihood =126.879 d.f.=1 ; Significance =0.000 ; $R^2_{Nalgerkerke}$= 0.123					

Conclusion

The doctor-patient relationship is fundamental for compliance with the prescribed therapy and consequently for the improvement of the clinical benefits of medication and well-being of the patient.

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Acknowledgment

The authors thank FCT, Portugal and FEDER under the PT2020 program for the financial support to CIMO (UID/AGR/00690/2013). UDI/IPG