

Abstract

Introduction

During the last decades, proportion of geriatric patients in the world population increases. This phenomenon is caused particularly by advances in medical science, social care and working conditions. However, the problem still lies in a very frequent polypharmacotherapy and polymorbidity in older patients. With the aim to reduce the frequent adverse drug events in seniors, the explicit criteria of PIMs (potentially inappropriate medications) have been created.

The aim of this work was to determine the registration rates of PIMs in several Eastern and Central European countries using all until now published 22 explicit criteria of potentially inappropriate medications in older patients that are available in published scientific literature.

Methods

A set of 345 PIMs gained from all explicit criteria published in peer-reviewed or impact factor journals by 2015 year and summarized in diploma thesis of S . Grešákové, MSc (defended in June 2016) was used in this work. Every drug has been included in the list only once, disregarding the other conditions of inappropriateness (e.g. drug-disease interactions, dosing schedules, etc.). The exception were PIMs available in non-sustained and sustained-release forms, because each of this drug form can be identified under a specific ATC code. Analyses used data obtained in the EU COST Action IS 1402 initiative (2015-2018), where research teams of participating countries filled summary information about the registration rates of various products containing PIMs. In this diploma thesis are analysed data from Central and Eastern European countries, obtained in cooperation with national registration institutions in the Czech Republic,

Slovakia, Croatia, Estonia and Poland. In tables and figures are summarised data of the registration rates of PIMs in these countries.

Results

From the overall list of 345 PIMs, 145 (42,0 %) were registered in the Czech Republic, 151 (43,8 %) in Slovakia, 135 (39,1 %) in Estonia, 126 (36,5 %) in Croatia and 176 (51,0 %) in Poland. The most specific criteria of all explicit criteria were for the countries of Central and Eastern Europe the EU-(7) PIM criteria, but registered PIMs in the majority of these countries created maximally half of all known PIMs. The use of only single criteria could lead to significant discrepancies and according to our results, it's necessary to use for comparative international research rather the whole list of PIMs available in different explicit criteria

Conclusion

In conclusion, the most specific criteria for Central and Eastern EU region were the latest published EU- (7) PIM criteria. In order to maintain a high level of objectivity and sufficient specificity of instruments used in future international pharmacoepidemiological research, it's important to use the methodology combining all until now published instruments together.

Keywords

Potentially inappropriate medications, geriatric patients, explicit criteria, registration rate

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