Executive summary

A group of pharmacists and nephrologists has developed a computer application to help health professionals in the assistance of patients with kidney disease. This application will facilitate dose adjustment as well as security evaluation of drugs prescribed to these patients.

Introduction

Chronic kidney disease is a highly prevalent disease. Usually, it is associated with other diseases thus resulting in high treatment costs. It is estimated that over 9% of the Spanish population present some degree of decreased kidney function. This ration increases in patients over 65 years old; where one out of three have a decreased kidney function. Most of the medicines prescribed to these patients, require dose adjustment in order to avoid drug iatrogenesis.

Currently pharmacists and physicians lack of the tools that allow them to adjust medicine dose, according to kidney function decrease. This adjustment is of key importance in order to warrant patient safety.

To facilitate the implementation of dose adjustments in patients with kidney disease in primary care and community pharmacy as well as to promote future research on the management of kidney disease, the research group, has developed a computer application to be used by physicians and pharmacists on everyday practice.

Description

A Research group of the University of Barcelona, in collaboration with the Spanish Nephrology Society has developed a computer application to rapidly assess the need of dose adjustment in patients with kidney disease. The tool is accessible to physicians and pharmacists on-line.

The tool uses information on the estimated glomerular filtration rate (from a blood test patient) and medications prescribed and generates a risk message for each drug that indicates the level of risk and suggested intervention (e.g. dose adjustment or stop a medication).

Advantages

- It can be easily used by health professionals to help patients with kidney disease and co-morbid diseases, which are highly prevalent.
- It can also be used for research purposes.

Current stage of development

The computer application is available to include a wider range of medicines and to facilitate access to Spanish health professionals.

Goal

The group is looking for a license but other collaborations may be considered.

Intellectual Property

All intellectual property rights to this project are protected by the laws and international treaties regulating intellectual property rights.

Reference

AVCRI279

Contact

Isabel Durán
Email: iduran@fbg.ub.edu
Tel: +34 934 037 281