CONFERENCE ABSTRACT

Assessment of ICT solutions to promote the management of polypharmacy in elderly people with multi-chronic

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Background/Objective

Polypharmacy, defined as the use of multiple drugs or more than are medically necessary, is especially common in elderly patients. They tend to have more complicated chronic conditions that require the intake of multiple drugs. Inappropriate polypharmacy is usually associated with adverse drug events, interactions, non-adherence to prescribed medication, and increased risk of geriatric syndroms (falls, incontinence, malnutrition, cognitive impairment, delirium). The growth of applications to manage polypharmacy has significantly increased in recent years. However, the effectiveness of these applications for this purpose has not been evaluated.

The EU-funded GATEKEEPER project, pretends to demonstrate the real-life effects of a digital ecosystem innovative platform for personalized treatments and therapies based on early detection and risk avoidance in a large-scale pilot study across eight European health references. The Basque country as deployment site will assess the effectiveness and the user experience of two digital solutions that could facilitate the management of polypharmacy in the elderly patients with multi-chronic diseases and polypharmacy.

Methodology

The intervention designed is focused on (i) providing primary care healthcare professionals with a computer-based tool (CheckTheMeds® web service) to facilitate the revision of medication and the identification of potentially inappropriate prescriptions in elderly patients with multi-chronic diseases, and (ii) providing elderly patients with a mobile health application (My treatment app) that will enable them to comply with and correctly follow with the prescribed pharmacological treatment.

From February to June 2021 the adaptation and customization of the applications and the training of professionals will be carried out. In June 2021 the recruitment of 1000 patients (500 control group and 500 intervention group) will begin at two Integrated Healthcare Organizations in the Basque Country. This piloting of the intervention will begin in the October 2021 and will last by the September 2022. Patients in the intervention group will be monitored during 12 months and their health status and medication will be revised at the baseline, every 3-4 months during the follow-up, and at the end of the intervention.

Qualitative and quantitative evaluation will be performed. Quantitative data will be collected through questionnaires, information of the administrative database of Osakidetza (Basque Country

Healthcare provider) and the application servers at the beginning and end of the intervention. Qualitative data will be obtained by semi-structured interviews and focus groups at the end.

Results

This study will assess the effectiveness and the user experience of two digital solutions that aim to improve polypharmacy management and adherence to prescribed medication, in order to reduce adverse effects of medication and increase patient´s quality of life.