Clinical pharmacist in residential social care for elderly: a study of budget impact

G. Franchin[1], J. Bolcato[1], R. Pirolo[1,3], P. De Cosmo[2], L. Caparrotta[3], G. Terrazzani[1], A. Chinellato [1]
[1]Servizio Farmaceutico Territoriale, Azienda ULSS 9, Treviso
[2]Infologic srl, Padova
[3] Università degli Studi di Padova, Padova

Background. Nursing Home (NH) residents are elderly subjects characterized by physical or mental disorders that often lead to permanent disability. The number of elderly individuals is constantly increasing in the Western world, with significant implications in terms of health assistance needs and expenditure. Potentially Inappropriate Medications (PIMs) are a preventable cause of negative clinical and economic consequences in older people. The aim of the present study is to estimate the health expenditure allocated to NH and to identify how to reduce costs meanwhile improving the therapeutic appropriateness.
Material and Methods. An observational study is conducted over a years time in 25 NHs, and involved 2010 elderly residents, assisted by the Local Health Authority (LHA) of Treviso, Italy. A dedicated software has been utilised for detection of therapies of NH residents that allowed to identify the subjects in severe polypharmacy and highest to risk of PIMs. For each patient, costs for hospitalizations, specialist visits, drug prescriptions and medical devices were collected and analysed. The pharmacist dedicated his activity in half of NHs in which he tried to lead a better management of drug therapies and simultaneously an optimization of available resources. The other NHs not included in the project have taken the role of *comparators* for the assessment of achievements.
Results. With regard to therapeutic appropriateness, at the end of the project the NH residents included in the project have reported a decrease about polypharmacy and appeal to specialist visits compared with slight increased in hospital admissions (Table.1). Also regarding the rates exposure to PIMs among the NH residents studied, there were a decreased of 6,8% compared to *comparator* about inappropriate prescriptions. Costs for the assistance of NH residents were different if the NHs were counselled by a pharmacist or not. The pharmacist intervention resulted in a saving of load to AULSS 9 of € 150/year for each resident in NHs participating in the project, divided as follow: hospitalizations (€85), specialists (€5), drug prescription (€55) and medical devices (€15); each structure adhering to the project provided a contribution to the work of pharmacist of € 10 for each its host. A further advantage is given from less work for the staff that has generated savings through optimization of activity nursing staff of the structure about €4,6 / NH resident/year.
Conclusion. By virtue of the fact that the population examined in this study is particularly fragile, caused many chronic diseases, a collaboration between the clinical pharmacist and the medical doctors/nurses improves the therapeutic appropriateness in the face of reduction of PIMs and a better drugs management[1]. Finally, a clinical pharmacist exercising his activities in the NHS can generate positive effects in terms of consumption of resources more efficiently and reduce costs, the positive consequences are particularly important in the face of growing demand for assistance from the elderly population. By Finally, a clinical pharmacist exerting its activity in NHs may generate positive effects in terms of a more efficient resources consumption and reduce costs, positive consequences are particularly important in the face of increasing demand for assistance from the elderly population.