POSTER ABSTRACT

Improvement of drug treatment in elderly patients, through the collaborative work between pharmacists and physicians

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Introduction: Pharmacists have been progressively included in health care teams delivering integrated care. With the development of Pharmaceutical Care, pharmacists provide direct medication-related care with the aim of improving patient’s life quality. However, even thought these progresses (especially in hospitals), most day to day work in integrated care is centered on physician’s and nurses.

Benefits of integrated care are higher in the patients with most complex health care needs, such as older people. This group of population is characterized by its frailty, comorbidities and polypharmacy; therefore problems related with medication (PRM), are more frequent and have more serious impact.

Our Group is specialized in giving health care to older people at different levels: primary, nursing homes, long term care, home care; areas where the participation of pharmacist in the integrate care is usually underdeveloped. Therefore, there is less evidence on the benefits derived from pharmacist’s intervention; compared with other health care institutions such acute care hospitals.

From our Pharmacy Service, we have been working in the incorporation of the pharmacist as a member of the care team in order to improve outcomes in our patients through the management of medication and PRM.

Short description of practice: We have implemented a program to improve drug treatments in our patients, through pharmacist’s interventions derived from medication reviews and prescription validation.

The program has been established in two health systems, managed by our Group:

- Long term care and subacute care Hospitals (HSS): HSS Mutuam Güell (165 beds) and HSS Mutuam Girona (103 beds).

- Health care support teams for nursing homes: EARs (Formed by physicians and nurses)

In the two Hospitals, pharmacists’ can make interventions at different moments of the patient process: Admission, during the hospital stay and at discharge. In EARs, pharmacists make at the admission of the patient in the nursing home.
Drug related problems detected are communicated to the physician through email or telephone. Drug related problems are recorded in a database using Microsoft Excel® using the ASHP (American Society Health-System Pharmacists) classification, as well as answers or lack of it from physicians.

Improvement in drug treatments is evaluated using the MAI (Medication Appropriateness Index).

**Key findings:** Period considered: June 2014-2015

Demographic data: Mean age HSS 80.7 years (70% female) and EARs 84.8 years (59% female). In both cases more of the 69% of patients taking ≥ 9 drugs.

Total of treatments reviewed by pharmacists: 3671 in EARs and 2176 in HSS.

Have been conducted 4115 interventions in EARs (1.94 interventions/patient) and 2534 in HSS (2.43 interventions/patient). The degree of answer was 44% in EARs and 79% in HSS. Of the interventions/recommendations answered they were accepted in an 84 % (EARs) and 72% (HSS).

More frequent PRM found where similar in HSS and EAR: Inappropriate dose, dosage form, schedule, route of administration, or method of administration; Medication with no indication; Condition for which no medication is prescribed and Problems are arising from the financial impact of therapy.

MAI values after implementation by physicians of pharmacist’s recommendations in EARs decreased from 4, 4 to 2.68 (p< 0.0001); in the HSS values decreased from 3.75 to 1.74 (p<0.0001).

**Highlights:** The implication of pharmacists in the medication reviews of those patients leads to a quality improvement of the prescriptions; as MAI show (p<0.0001).

One of the main problems is the low degree of physician’s answer, particularly in EARs. This is probably due to that in HSS

- Pharmacists in HSS are closely working with physicians since a longer time, so physicians are more aware how to manage recommendations and what to expect from the pharmacist.

- They work in the same building, making communication easier.

Moreover, HSS physicians are independent in applying the recommendations of pharmacists, whereas in EARs, some nursing homes have their own physicians, so our team’s physician has to agree some of the changes proposed.

However, we have noted that since we started the program the response tendency is increasing deriving in part from day to day, working together, exchanging opinions and explaining the aim of our work.

**Conclusions:**

- The program has lead to an increase in the appropriateness of drug use in geriatric patients.
Mestres; Improvement of drug treatment in elderly patients, through the collaborative work between pharmacists and physicians.

- We have been able to apply it to two different kind of health care levels. Therefore, we think that in the future it can also be extended to home care, etc.

- It is important to give information and formation to all health care professionals about the benefits of collaborative work with pharmacists.

**Keywords:** geriatry; drug appropriateness; multidisciplinary attention; pharmacists interventions