POSTER ABSTRACT

Multidisciplinary review and discussion of Drug Related Problems in polypharmacy patients in an emergency department

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Summary: The study was carried out in the Emergency Department (ED) of a tertiary hospital. We reviewed treatments of polypharmacy patients. The aim is to study the prevalence of Drug Related Problems (DRP) and its implications in the visit to ED. The integration of pharmacist in the ED has facilitated the detection of DRP and helped to identify their link with ED visits.

Introduction: Polypharmacy and DRP increase the likelihood of negative health outcomes such as adverse reactions, interactions, hospitalizations, visits to ED, lack of adherence or increase in costs. ED has full accessibility, high activity and is a gateway to health care, which makes it a target scenario for investigating activities to improve drug safety.

Theory/methods: A prospective study between April and September 2018 was carried out in the ED of the tertiary hospital of Donostialdea-Integrated Health Care Organization on polypharmacy patients (≥5 drugs). Priority was given to those with more drugs prescribed. The aim was to study the prevalence of DRP and its implications in the visit to ED.

A pharmacist reviews each patient’s active drugs, their modifications and the context in which they have arisen. The DRP detected, were communicated to ED, Specialist or Primary Care physician according to adapted Pharmaceutical Care Network Europe Foundation V6.01 classification. The possible link between DRP and the visit was discussed by pharmacist and ED physicians. The study was supported by the Ethics Committee of the Gipuzkoa Health area.

Results: 138 patients (55% men, 45% woman), mean age 73, average of 9.2 drugs per patient were included.

The previous month to ED visit, 45% of patients had some modification in their treatment and 57% had visited their PC physician.

116 patients (84%) presented some DRP were in 65 cases (47%) the DRP contributed to their visit. The ED physician agreed in 87% of the cases.
The DRP considered related to the visit were: 31 (47.7%) adverse effect, 20 (30.8%) adequate therapy but ineffective, 3 (4.6%) high dose, 3 (4.6%) lack of adherence, 3 (4.6%) indication without drug, 4 (6.2%) other.

-78 patients (56%) were admitted, compared to 40 (62%) who had a DRP related to the visit.

**Discussions:** In a large number of patients, DRPs may have contributed to triggering the ED visit. There is a high agreement between pharmacist and ED physician in assessing the cases of DRP and their link with ED visit.

**Conclusions:** The integration of pharmacist in the ED has supported the detection of DRP and helped to identify their link with ED visits. A multidisciplinary approach in the management of polypharmacy could reduce DRP and in turn decrease adverse health events.

**Lessons learned:** DRP are among factors that can contribute to triggering situations that require urgent health care. These events can be reduced by the early detection of DRP.

**Limitations:** Limited resources do not allow continuing with formal detection of DRP by a pharmacist.

**Suggestions for future research:** Act on situations generating DRP: excessive polypharmacy and potentially inappropriate prescriptions with multidisciplinary approach.

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**Keywords:** polypharmacy; drug related problems; emergency department; pharmaceutical care