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Letter to the Editor

Deprescription at hospital discharge: Outcomes of a deprescription promoting campaign

To the Editor,

Deprescription is the reduction or suspension of drugs that are not necessary or which are potentially harmful — a situation found in up to 19% of all elderly European patients and in up to 46% of all institutionalized patients. The lack of time among healthcare professionals to revise previous treatments; the incorporation of electronic prescription and its tendency to perpetuate chronic treatment; and reluctance to suspend drugs prescribed by other physicians are barriers against systematic deprescription. Hospital admission offers an opportunity to consider deprescription on a proactive basis. As a complement to the article recently published in this journal [1] we describe our recently reported experience [2] with the incorporation of a deprescription promoting campaign among polymedicated patients at the time of hospital discharge.

In a first phase we evaluated the percentage of patients with deprescription by taking as reference the last 5 discharges decided by 6 specialists in Internal Medicine, with application of the following inclusion criteria: admitted patients over 65 years of age and polymedicated with 5 or more drugs on a chronic basis. Deprescription was seen to be carried out in 20% of the patients.

The intervention in turn consisted of joint revision at the time of discharge by the principal investigator (Inmaculada Poquet) and physician in charge of the background treatment of the patient, with consideration of the withdrawal of potentially harmful medications, duplications or drugs introduced in previous acute episodes and which were no longer needed. The changes made were explained to the patient, and subsequent telephone contact 2-4 weeks after discharge was established to confirm that the suspended medication had not been reintroduced and that no side effects had occurred.

A 100% increase in deprescription was considered clinically relevant. The sample size in this second phase was therefore calculated to be 65 hospital discharges (measurement of paired proportions, accepting an alpha risk of 0.05 and a beta risk of 0.2 in two-tailed testing, with the assumption of a 0% loss rate). The comparison of proportions for paired samples was made with the McNemar test, using the Epidat 3.1 package, and defining statistical significance as $p < 0.05$.

Of the 65 included patients, 50.8% were males with a mean age of 80.4 years. Deprescription was carried out in 40 cases (63%), with an average of 2.5 deprescribed drugs. In three cases some of the suspended drugs (analgesics and sedatives) were reintroduced during the following month. The definitive D rate was therefore 56% (37 cases). This increase in a 36% in absolute terms (95% confidence interval 23–50.7%) and of 180% with respect to deprescription in the pre-intervention phase was very significant (McNemar, $p < 0.01$). In order to assess persistence over time of the effect of this campaign, we again reviewed the last 5 discharges decided by the 6 specialists, with application of the mentioned inclusion criteria, three months after the end of the active campaign — in this case without joint assessment with the principal investigator. Deprescription was seen to persist in 60.8% of the patients, with an average of 1.7 suspended drugs.

Telephone monitoring found most patients to have noticed no differences, and some even reported lessened dependency levels after suspending sedatives and opioid analgesics.

As indicated in the excellent article published by Reeve, different studies on deprescription have revealed the usefulness and non-maleficence of reducing prescribed drugs, particularly referred to concrete therapeutic groups such as psychotropic agents, sedative and antihypertensive drugs — with a resulting decrease in the number of accidental falls and mortality [3–6]. Most of the mentioned studies were carried out in the primary care setting or among institutionalized patients. Little experience is available referred to deprescription in acute case centers, taking advantage of patient admission to hospital.

In our study, the introduction of a training and awareness-enhancing campaign in deprescription at the time of hospital discharge resulted in a significant increase in deprescription practice that moreover persisted over time. In effect, a large percentage of the suspended medications were seen to remain suspended for at least one month.

The promotion of deprescription among polymedicated patients at the time of hospital discharge therefore may be of benefit both for patients and for sustainability of the healthcare system. Financed by 2016 scholarship of the Valencian Society of Internal Medicine: Research in care of pluripathologic patient.

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