

COMMENTARY

Conciliation of Pharmacological Treatment on Admission and Discharge: A Multidisciplinary Challenge

Juan Carlos Morales Serna

Primary Care Pharmacist, Degree in Pharmacy, Doctor of Medicine, Chairman of the Spanish Society of Primary Care Pharmacists (SEFAP), Spain

The appropriate use of medications is a fundamental component of the quality of health care that poses a risk to the health of patients. Quality in the use of drugs is determined, among other aspects, by their safety, which along with the efficacy, constitute the two most important criteria for selecting medication.

In the Study on Patient Safety in Primary Health Care (Estudio sobre la Seguridad de los Pacientes en Atención Primaria de Salud, APEAS), carried out by the Ministry of Health and Consumer Affairs within the framework of the National Health System Quality Plan, an analysis of the frequency and type of adverse effects in primary care revealed a prevalence of 11.18% of these episodes, 47% of which were related to medication.¹

Adverse effects may be produced, not only when drugs are used under the appropriate conditions, but also by faults and errors that occur during the complex process of their clinical use; in this latter case they are called “medication errors.” A medication error, therefore, is any preventable incident that could cause harm to the patient or which gives rise to the inappropriate use of the drugs while medication is under the control of health personnel, patient or consumer.

As the authors of the article themselves mention, it has been documented that half of the medication errors are produced in processes, such as hospital admission and discharge, where there are changes in responsibility for the patient, one reason why they have been identified as critical

points in the health care process. From this perspective, the subject of this study seems timely, as it centres on intervention by pharmacists at the time of hospital discharge, with the aim of evaluating the consistency between the chronic medication before hospital admission and the prescription when discharged, and to introduce the necessary changes. The fact that 249 errors were identified in 434 discharges confirms the importance of the question, and the need to promote procedures and interventions that could minimise these errors in medication.

The usefulness of a medication review by pharmacists to reduce adverse effects to drugs has been documented by different authors.^{2,3} The effectiveness of this intervention

Key Points

- The discrepancies in treatments when admitted and discharged from hospital can be avoidable medication errors.
- The review of treatments at discharge, with the intervention of pharmacists in collaboration with the doctor, can help to avoid potential medication errors.
- Interventions with validated efficacy in decreasing medication errors must be implemented.

has been shown in these studies, which observed an improvement in the results in the variables, such as the number of adverse reactions, the level of compliance to treatment or the quality of life of the patients. The participation of pharmacists in the conciliation of treatments was specifically evaluated in a controlled and randomised study, in which it was shown that the number of discrepancies between the medication after hospital admission and the previous patient treatment was reduced with the participation of the pharmacists compared to standard health care. The number of discrepancies decreased from 44 per 100 patients (68/154) to 19 per 100 patients (30/154).⁴

On the basis of this evidence, the British National Institute for Health and Clinical Excellence (NICE), in its guidelines for patient safety, recommend that health care organisations put medication policies in place for the conciliation of medications at the time of admission.

Besides specifying standardised information recording systems and documentation on the drugs, it recommends that pharmacists should be involved in the conciliation of medications as soon as possible after the patient is admitted, and their responsibilities must be clearly defined.⁵

The frequency of these types of medication errors associated with the transfer of the patient from one health care level to another are also those that are clearly preventable, and seems to demand an effective response from health organisations, which should lead to a decrease in the number of errors and with it, improve the quality of

health care provided. As the authors of the study being commented on have shown, intervention by pharmacists can contribute towards avoiding discrepancies in treatment in the transitions from one level of health care to another. Independently of this, in the research field it is good and desirable to advance the level of knowledge on the best tools to prevent medication adverse effects and errors. It also seems reasonable that the health institutions should help to implement activities such as those described in the article, for those that already have evidence available to prove its effectiveness.

References

1. Estudio APEAS: estudio sobre la seguridad de los pacientes en atención primaria de salud. Madrid: Ministerio de Sanidad y Consumo; 2008.
2. Zermansky AG, Petty DR, Raynor DK, Freemantle N, Vail A, Lowe CJ. Randomised controlled trial of clinical medication review by a pharmacist of elderly patients receiving repeat prescriptions in general practice. *BMJ*. 2001;323:1340-[doi:10.1136/bmj.323.7325.1340](https://doi.org/10.1136/bmj.323.7325.1340).
3. Chumney EC, Robinson LC. Efectos de las intervenciones del farmacéutico en pacientes polimedicados. *Pharmacy Practice*. 2006;4:103-9.
4. Kwan Y, Fernandes O, Nagge J, Wong G, Huh J, Hurn D, et al. Implementation and a randomized controlled evaluation of pharmacist medication assessments in a surgical pre-admission clinic. *Pharmacotherapy*. 2005;25:1462-2.
5. National Institute for Health and Clinical Excellence, editors. NICE patient safety guidance 1. Technical patient safety solutions for medicines reconciliation on admission of adults to hospital. NHS 2007. Available from: <http://www.nice.org.uk/nice-media/pdf/PSG001Guidance.pdf>