EDITORIAL

On medication errors in hospital emergency departments: steps toward improving patient safety

Acerca de los errores de medicación en los servicios de urgencias hospitalarios: pasos para la mejora en la seguridad del paciente

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The perfect storm. That's how some authors have described the confluence of factors that occur in the hospital emergency services (HES) and the increase of risk that patients have of suffering some error related to medical assistance during their stay in these units[1]. In this way, HES professionals face unknown and acutely ill patients, in whom it can be difficult to obtain an adequate anamnesis, under an environment of frequent interruptions and distractions and with high healthcare pressure. This is compounded by the high complexity of patients, many of whom are polymedicated or in treatment with high-risk drugs, all of which generate a suitable breeding ground for the occurrence of medication errors (ME)[1-3].

In a leap from theory to practice, different studies have been carried out in recent years with the objective of characterizing incidents and adverse events (AE) in HES. In Spain, the risk associated with care in the HES was clearly corroborated, almost 10 years ago, by the results of the EVADUR study. In this study, 12% of patients treated in a HES had at least one incident or AE, of which 7.2% caused some type of damage to the patient. 24% of the AEs that caused patient harm were related to medication[4]. Although the rate of ME in the environment of the HES has not been clearly defined, several studies place it between 4-14%[5], although this can be very variable depending on the detection method used and the definition of ME used. Given these data, the importance and complexity of medication management in the HES environment becomes evident.

This issue of EMERGENCIAS includes two studies that address the analysis of ME and offer a characterization of different types of ME with the aim of identifying possible strategies to improve patient safety. In one of them, Pérez-Díez et al.[6], carried out a prospective study for the detection of ME using the direct observation method. The main variables analysed were the error rate, the incidence rate, the probability of error and the number of errors patient/day. Likewise, multiple variables (patient, professional, prescription and type of ME) were taken into account for a later analysis of associated factors and critical points. Their results show an ME rate of 23.7% and an average of 0.5 ME/patient/day. The majority of these ME occurred at the time of administration, were mainly related to the technique of administration and preparation, and did not cause harm to the patient. A greater number of ME were detected in the observation rooms, which the authors relate to a greater complexity of the patient. One of the main added values of this work lies in the incident detection method used. Direct observation is one of the few methods that allow an adequate assessment of the ME that originates at the time of administration, the last point in the chain of use of the medication before the error reaches the patient and can cause deliberate harm. Unfortunately, it is a more expensive method, both in time and in financial and personal resources and, therefore, frequently underutilized. In this line, we have the results of a multicentre study conducted in North American HESs, in which 60% of the patients attended suffered some type of ME, with the administration time being the second most prone to error (35%)[7].

On the other hand, the study carried out by Bilbao et al. focuses on the analysis of a specific type of ME, the reconciliation errors[8]. Its objective is to identify profiles of patients with greater risk of suffering this type of error, as well as to determine the most appropriate prescription tool to minimize it. Despite being a small study (n = 148), 76.4% of the patients presented some conciliation error. The polymedicated patients and the multi-pathological individuals under 80 years of age were identified as the profiles with the highest risk of suffering a reconciliation error. We compared the two prescription systems used according to the origin of the prescription: electronic prescription of free text (used in the HES) versus electronic assisted prescription (used in the hospitalization floor), without finding differences in the rate of errors of reconciliation between both of them. The incidence results obtained in this study coincide with previous studies[9,10] and again highlight the importance of implementation of medication reconciliation programs in HES[11]. As reflected by the authors themselves, it is a key point of care transition, and it should be considered that, often, the prescription generated in the HES can condition the subsequent prescription during admission.

Both studies also share the commitment to the incorporation of the pharmacist within the multidisciplinary

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Information about the article: Received: 02-10-2017. Accepted: 03-10-2017. Online: 9-10-2017
Editor in charge: Òscar Miró, MD, PhD

team of a HES, both in the assistance and in the leadership of studies to improve quality and safety. Their participation in the treatment review can help to intercept both ME and early reconciliation errors[12-14].

Finally, it should be noted that the greatest value of both studies is that they advance one step beyond the mere epidemiological characterization of the ME detected. We must not lose sight of the fact that the final objective of these works must always be the use of the results obtained to implement continuous improvement processes aimed at optimizing the systems and increasing patient safety during healthcare. Just as MJ. Otero of the ISMP-Spain says, in recent years there has been much progress in research on patient safety, to the point of constituting a discipline. However, it is necessary not to get stuck but to continue working, promoting research, joining forces through multidisciplinary teams and strengthening the leadership of those professionals who are experts in drug safety[15].

Conflicting interests

The authors declare no conflict of interest reated to this article.

Financing

The author declares the non-existence of external financing of this article.

Article commissioned by the Editorial Committee review and with internal Editorial Committee review

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