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PHARMACEUTICAL ADVICE AT HOSPITAL DISCHARGE: A REVIEW STUDY

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ABSTRACT

The emergence of treatment-related problems is very common, and patients will be harmed soon after being discharged from the hospital. Therefore, the role of the pharmacist played a role, and the risk of adverse events (AE) was previously determined, which helped to achieve success in the continuity of family therapy. A table containing author, year, goals, results, and article design and publication country was developed to effectively display the main information contained in the article and to better understand the identified research results. It is proved that the pharmacy guidance service at discharge, due to the complexity of the treatment methods used at discharge, makes pharmacy professionals indispensable because it plays a relevant role in patient care.

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INTRODUCTION

Hospital discharge is established as the situation that allows the patient to leave the hospital unit, being a strategy that encompasses all how the patient can leave the hospital. With the medical release, it is characterized that the patient, clinically evolved and translates circumstances to return home and continue the execution of health recovery [1].

Due to the possible changes in the pharmacological treatment, it is common for problems related to therapy to arise, exposing the patient to damage soon after hospital discharge. With this comes the role of the pharmacist, previously identifying the risks of adverse events (AEs), contributing to the successful completion of the continuity of home treatment [1,2]. In this sense, Medication Reconciliation (MR), being a process that consists in obtaining a complete and accurate list of the patient's usual medication use and subsequent comparison with the prescription in all transitions of care (admission, discharge, or

transfer between inpatient units), [3] has been a key tool to reduce the discrepancies identified, preventing the occurrence of AEs [4]. The implementation of MR is still a reality that does not cover a significant portion of Brazilian health services. Therefore, its implementation needs to be increased to enable the adequacy of this important process that contributes to the prevention of medication errors (ME) and, consequently, with the reduction of hospital readmissions, a reality of Brazilian institutions [5].

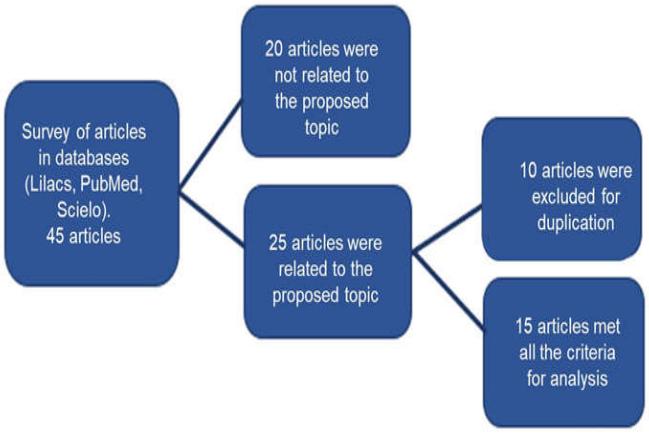
Proper understanding and use of medications are major components associated with hospitalist safety, and currently, the discharge process does not provide sufficient safety devices to ensure quality post-discharge care [6] Still, according to Ramos, [7], the pharmacist should recognize the patient's level of knowledge about his pathology, expectations regarding his treatment, and assimilation regarding the correct use of his medication or if he has any doubts on the subject. During counseling, the oral information provided by the pharmacist should always be accompanied by complete and understandable written information, in language adapted to the patient's level of knowledge. Considering that some studies report that most patients leave the hospital with little knowledge about drug therapy because they are regularly discharged with inappropriate or scarce information about pharmacotherapy, or even do not receive any guidance on post-discharge treatment [8]. The specific MR process, with that, will depend on the context of care and the system's resources. However, it should be appropriate to the place of care and each particular episode. First of all, it should be emphasized that MR suggests being a continuous and dynamic process, contributing as a necessary component to safe medication management [9]. In this sense, this article aims to discuss pharmaceutical orientation at hospital discharge based on existing sources.

METHODOLOGY

It refers to a literature review study, in which data was collected to analyze the articles on the presented theme, using the following descriptors: pharmaceutical orientation, hospital discharge, orientation at discharge. The research was carried out in two stages: first, for inclusion in the sample were used journals available in LILACS, PubMed, and SciELO databases, and the language was not limited to have more coverage of the theoretical referential. In the next step, articles that did not correspond to the subject studied, duplicates, and those with a publication year below 2010 were excluded. After the exclusion process, the articles were selected for this study from 2011 to 2021. Subsequently, they were read to sort and describe the information contained in the sources to enable the obtaining of answers to the research theme. This study was developed without the need to submit it to the Committee of Ethics in Research involving Human Beings, resolution CNS (466/2012) because it is a review whose information was obtained in materials already published and available in the literature.

RESULTS AND DISCUSSION

After a detailed reading, 15 articles met all the specifications and were selected for the research. A table was developed containing the author, year, objective, result, as well as the article design and the country of publication, to expose the main information contained in the articles, as well as to allow a better grasp of the identified research results.According to the Pharmaceutical Guidance Service at Hospital Discharge, due to the complexities of the therapies used at discharge, the pharmaceutical professional is essential, since he/she plays a relevant role in patient care, minimizing risks in the prescribed medications or in changing them. Thus, it becomes a plan for the qualification of care, except in the case of elderly patients [10]. Research [11] demonstrates that the effective participation of pharmacists in clinical practice and inserted in the work process of hospital discharge favors the promotion of rational use of medicines. Reinforcing that orientation at the moment of discharge and throughout the hospitalization period imposes on patients a greater knowledge about pharmacotherapy. Motivating their autonomy and control over their health [12].



It is also possible to notice in another work that the orientation performed by pharmacists regularly contributes to the safety in the use of medications after hospital discharge [8]. Some studies, [13,14] highlight that discharge planning is performed in a weekly multi-professional meeting, where issues such as the place of follow-up, available resources in the community, access to necessary medications are discussed. Among others, enabling the involvement of pharmacists, nurses, and other team members in the hospital discharge. They also point out that programmed discharge occurs only in complex situations, usually involving patients with long hospital stays, important social issues, and complex treatments.

a study carried out in a medium and high-complexity hospital, the orientation and discharge of patients by the pharmacist allowed the identification of weaknesses in the process of medication use. Interventions were well accepted by the medical team [15]. Similarly, our author [1] emphasizes that the orientation of the clinical pharmacist together with the multi-professional team at the moment of patient discharge is important because it prevents negative results associated with pharmacotherapy, guaranteeing drug reconciliation and patient safety. The presence of clinical pharmacists involved in drug counseling prior to discharge has provided several reductions in hospital readmission rates, favoring patient performance and treatment [16,17]. As well as, another paper states that guidance at discharge and also post-discharge professional contact. Where the developed services induce significant pharmacotherapeutic records in most of the studied individuals, show the effective notability, in the practice of the services provided to these patients [18].

Incompetence, responsibility, and care, the guidelines need applicability to always take care of the monitoring of prescriptions, correct dosages, evaluating the responses of the medications to the patient and the side effects. This follow-up is enhanced not only in the intra-hospital performance but also in post-discharge situations, verifying the total humanized and efficient recovery, becoming a qualified discharge [19,20]. However, [12] reinforces how worrisome the lack of progress with communication of information at discharge is, and may be associated with patient harm. Recommendations to improve information transfer were proposed, such as minimum information to be communicated at discharge. Another work also reinforces this need for optimization at hospital discharge [21].

A study in 2021, shows that patients emphasize the importance of written information at hospital discharge. For increasing their ability to use medications correctly after discharge [22]. Pharmacists can share with patients and other members of the healthcare team the responsibility for pharmacotherapeutic outcomes after hospital discharge, and contribute to the reduction of patient suffering and better utilization of healthcare services [5].

Table 1. Studies regarding pharmaceutical orientation at hospital discharge between the years 2011 to 2021

Author	Year	Goal	Result	Design	Country
Marques LFG. *et al.* [8]	2011	Present information that contributes to the development of discharge counseling.	Studies show that the orientation performed by the pharmacist can contribute to patient safety, helping in the prevention and/or adequate management of medication-related problems (DRPs) that may occur after the patient's return home.	Literature review.	Brazil
Costa JM. *et al.* [10]	2014	Describe the actions taken and analyze the results achieved with the implementation of the Pharmaceutical Orientation Service at Hospital Discharge (SOFAH).	During the study period, 97 patients were seen by the SOFAH. The mean age of the patients was 73 years. At the time of discharge orientation, it was identified that 50% of the patients would need help to use medications after hospitalization. It is noteworthy that 58% of patients left the hospital with a prescription for a larger number of medications when compared to the pre-hospitalization moment.	A descriptive and exploratory study.	Brazil
Lupatini EO. *et al.* [11]	2014	To identify the perceptions of patients admitted to a teaching hospital regarding their pharmacological therapy and pharmaceutical counseling and guidance at the time of hospital discharge.	Thirty patients were interviewed, where 80% reported not knowing the function of the pharmaceutical profession in the hospital environment; 33% reported difficulties to identify two or more criteria, such as the reason why the drug was being used, doses, schedule, and mode of administration. And 93% would accept to have a conversation about medications with the pharmacist before leaving the hospital.	A prospective, descriptive, exploratory study.	Brazil
Hammad EA. *et al.* [12]	2014	Report on the magnitude of adherence and the factors affecting the likelihood of length of the hospital discharge summary to the National Prescribing Center (NPC) minimum data set.	Unplanned admissions accounted for 63% of the sample and 74.6% of electronic discharge summaries, demonstrating higher adherence than handwritten discharge summaries. Adherence to patient, admission, and discharge information was 77.3%. Predictors of adherence included quality of the discharge template, electronic discharge summaries, and a lower number of medications prescribed.	Retrospective review.	United Kingdom
Marques LFG. *et al.* [13]	2014	To understand the dynamics and challenges of the care provided to the patient by the hospital staff, aiming at safety in the process of medication use after hospital discharge.	Strategies related to discharge orientation were adopted in a structured manner, especially for caregivers of pediatric patients. At the end of the discharge orientation performed by the pharmacist, the caregiver received printed informational material containing specific information about the use of certain medications.	Exploratory research.	Brazil
Martins RR. *et al.* [14]	2015	To measure the role of the clinical pharmacist in the admission and discharge processes in the infirmary of a public hospital in central-western Brazil.	A total of 883 reconciliations were performed were 31.9% presented discrepancies between the home use medications and the medical prescription at admission. Discharge orientations were provided to 147 patients, of whom 27.9% needed interventions with the prescriber due to the detection of drug interaction or, for substitution of the prescribed item by another available in the public network.	A retrospective descriptive study.	Brazil
Lima LF. *et al.* [1]	2016	Describe and analyze the pharmaceutical counseling offered at the discharge of transplant patients.	59 PRMs were identified among the 74 oriented discharges, 67.8% of which were related to to not prescribing the necessary medication, resulting in 89.8% of the cases of risk of negative drug-related outcomes for an untreated health problem.	A cross-sectional, descriptive, retrospective study.	Brazil
Figueiredo TP. *et al.* [15]	2016	Analyze the orientations given during discharge and described in the pharmacotherapeutic referrals and the profile of these individuals in the post-discharge contact.	There were 142 pharmacotherapeutic referrals, of which 133 were effectively referred to primary care. Regarding the orientations given at discharge, it was observed that 93.66% of the patients received orientation on the use of medicines, and 71.13% received warnings about adverse reactions and records of occurrences.	Retrospective cohort study.	Brazil
Giacomini KP. *et al.* [16]	2016	To describe the role of hospital pharmacy management regarding qualified discharge, contextualized in the humanization policies of SUS.	Considering the role of hospital pharmacy management, the results point to the rational use of medicines, the possibility of greater effectiveness in Qualified discharge patient recovery, access to and information about medications, verification of responses to medications or possible side effects, adverse reactions, and drug interaction.	Exploratory and descriptive research, carried out by means of a bibliographic survey.	Brazil
Lupatini EO. *et al.* [17]	2016	To verify patients' knowledge about the medications prescribed at hospital discharge, as well as to investigate factors associated with this knowledge.	Of the 107 patients, about 50% had incomplete elementary school education. The level of knowledge about the name, dose, route, and frequency of administration of the medications was 85%. For duration and indication of use, they were 73.8% and 79.4%, respectively. Adverse effects, precautions, and drug interactions had the worst accuracy rates, all lower than 30%.	Exploratory, prospective study.	Brazil
Aniemeke E. *et al.* [18]	2017	To evaluate the impact of a hospital discharge counseling service by Clinical Pharmacy and the impact on readmission rates in high-risk patients.	Most of the discharge counseling was provided by the same pharmacist to ensure consistency in counseling and teaching methods. Demonstrating that this service affected reducing the number of readmissions and increasing the number of days from discharge to the first readmission.	Retrospective review.	United States
Brühwiler LD. *et al.* [19]	2017	Identify the current problems and roles of pharmacists in hospital discharge, evaluate their information needs, goals, and ideas for optimizing hospital discharge.	In addition to optimization through the improved transfer of information about therapy and patient care, the importance of knowing drug changes for patient safety and the advantages of information is available in advance are highlighted.	Qualitative and quantitative research.	Switzerland
Elson R. *et al.* [20]	2017	Determine the effects of hospital pharmacist counseling on discharge or community pharmacy medication reviews after discharge.	They indicate that patient knowledge of newly prescribed medications in the hospital is increased by targeted counseling by hospital pharmacists.	Randomized clinical trial.	United Kingdom
Anderson SL. *et al.* [21]	2018	Review strategies to improve the transition of care through pharmacists as integral members of the multidisciplinary team.	The participation of pharmacists in inpatient and outpatient teams can provide a variety of services that have been proven to reduce hospital readmission rates and benefit patient management and treatment.	Literature review.	United States
Svensberg K. *et al.* [22]	2021	Identify patients' needs for medication information after discharge, including patients' perceptions and evaluations of the information they received at discharge.	Several ways to obtain information about medications in the hospital were identified being oral or written information provided by health professionals. Emphasizing the importance of written information, which can be re-read after arrival at home. Actively involving patients in treatment, increasing their ability to use medications correctly after discharge.	Qualitative study.	Norway

CONCLUSION

Thus, the pharmaceutical orientation service at hospital discharge aims at patient safety and represents a remarkable tool for strengthening clinical practice. And this achievement, with the multi-professional team, is important because the rates of drug-related problems tend to reduce. Drug reconciliation, identification and prevention of adverse effects, proposals for adequate access to medicines, and patient education are aspects that, effectively conducted, make the pharmaceutical service more accessible to all.
The MR process has shown to have great potential, which proves the relevance and necessity of creating and implementing this process, having a positive impact on the quality of life of patients and the healthcare system in general.

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