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**EXPERIENCE REPORT**

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**DEVELOPMENT OF PROTOCOLS FOR THE DISCHARGE OF HYPERTENSIVE AND DIABETIC PATIENTS: EXPERIENCE REPORT**

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**ABSTRACT**

This is an experience report that aims to describe the process of developing protocols for the hospital, performed in the Emergency Unit of a Teaching Hospital of the Federal University of Paraná in Curitiba-PR, from December 2011 to July 2012. The preparation of the protocols was conducted in three stages: the first was the semi-structured interviews with 18 hospitalized patients with hypertension and / or diabetes mellitus. In the second step were held four meetings to discuss the answers of respondents and elaborate protocols. The third stage consisted of home visits to patients interviewed and meeting with nurses for deployment of protocols in high orientation. It is believed that the use of protocols discharge can be a valuable tool in managing the treatment of patients with chronic diseases because it allows their involvement and provides professional support in continuing their therapy.

**Keywords:** Nursing. Diabetes Mellitus. Hypertension. Clinical protocols. Adult health.

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**INTRODUCTION**

Chronic diseases are described as a group of diseases characterized by its prolonged course and multiple risk factors, which require constant monitoring and ongoing treatment<sup>(1)</sup>. Among them, some are classified as non-communicable, which are cerebrovascular, cardiovascular, renovascular, respiratory, cancer and diabetes mellitus<sup>(1)</sup>, those responsible for the high morbidity and mortality in most countries, implying high social and economic<sup>(2)</sup> costs.

Due to the high costs that these pathologies and its comorbidities entail, as well as the advancement of scientific and technological knowledge, time of hospitalization tends to be lower, generating an early hospital discharge<sup>(3)</sup>. Thus, there is great concern about post-hospitalization care to prevent readmissions, since they raise the cost of health care<sup>(3)</sup>.

To counter this problem, it is necessary to have a planned and systematized clinical discharge to provide explanations to patients and their families. It is understood that the systematic planning of hospital discharge may contribute mainly to the decrease of readmissions, as well as prevent or delay the onset of complications of chronic diseases. This plan requires a high multi and interdisciplinary work to overcome the fragmentation of care that by involving all stakeholders allows greater autonomy and knowledge that can help the patient in self-management of their care<sup>(3)</sup>.

One possibility to achieve self-management of care is the Case Management (CM), which covers the entire care process and its use enables the monitoring, identification, implementation and monitoring of protocols and services for the health of the patient. In summary, this system requires a care organization in order to manage each case through the demarcation of a

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multidisciplinary team that becomes responsible for the comprehensive care of the patient during their treatment<sup>(4)</sup>.

The development of clinical protocols, by the case manager, is useful because it directs the care and assists the patient in developing a goal, aiming an improvement in care, optimizing resources and providing efficient and quality care<sup>(5,6)</sup>. The clinical protocol can be characterized as an instrument of care and a way to facilitate communication, ongoing evaluation and monitoring of progress made by the patient for pre-set<sup>(5)</sup> goals.

The way the process of discussion, adoption and implementation of protocols occurs is crucial for them to become effective instruments of change and increase the critical capacity of professionals and may lead to an improvement in performance and in individual and collective stance, generating thus a work capable of producing more health<sup>(6)</sup>.

In this sense, the nurse has an important role in case management, especially for their skill in comprehensive care to patients and their clinical knowledge, determining priorities and ensuring the quality of care<sup>(4)</sup>.

The whole CM process is related to the scientific method of work, ie the Nursing Care System, which provides the planning of actions, enabling comprehensive care and improving the quality of care<sup>(7)</sup>.

Thus the aim of this study was to describe the process of drawing up protocols for hospital clinical discharge for patients with Hypertension and Diabetes Mellitus during the development of a survey entitled "The nurses and care management in chronic illness".

## METHODOLOGY

This is an experience report about the process of drawing up protocols for hospital discharge, performed in the Emergency Unit of a Teaching Hospital, Federal University of Paraná in Curitiba-PR, from December 2011 to July 2012.

The preparation of the protocols was performed in three steps: the first occurred during the months of December 2011 to March 2012 and consisted of conducting semi-structured interviews recorded with 18 patients

with hypertension and / or diabetes mellitus, these were intentionally contacted from July 2012 to December 2012 to identify the needs of knowledge about the treatment and the underlying disease. Inclusion criteria for the study were: adults aged 18 to 60, living in Curitiba-PR or Metropolitan Region, attended at the Emergency Care Teaching Hospital and those who remained hospitalized for at least two days.

The data collection instrument consisted of identifying data that took into consideration the socio-demographic variables (gender, age, marital status, education level), time of diagnosis and treatment, questions regarding knowledge of Hypertension and Diabetes Mellitus, and identification of questions about the treatment. From the analysis of data collected with the 18 patients, four meetings were held in April and May in 2012 among researchers for the construction of protocols that constituted the second stage.

The third stage held in June and July 2013 consisted in the evaluation and adaptation of the protocols through new interviews with 20 different patients in the first stage, and a month later these same guidelines of hospital patients were monitored and guided by the use of protocols for verification of its applicability in home visits. The necessary adjustments were made only in physical exercise protocol and consisted of the inclusion of guidance on the importance of physical activity gradually increase until it reaches the 30 minutes recommended in the literature. In addition to this change, there was the addition of two protocols, one on nephropathy and retinopathy on the other, in consequence of some patients from whom the protocol was applied during its testing which possess these comorbidities.

Finally, we held a meeting with the researchers and three nurses for deployment of service protocols.

Regarding ethical issues, the project was approved by the Ethics Committee in Research of the Department of Health Sciences, Federal University of Paraná with record CEP / SD 1227.152.11.09 and CAAE 0149.0.091.208-11, and follows the 196/96 the Ministry of Health in regard to anonymity, subjects were identified by the initials of the names.

## RESULTS AND DISCUSSION

By analyzing 18 interviews of the first stage, it was found that educational needs were related mainly to nutritional care, exercise, medication and understanding of the condition. Of the 18 patients, 12 already had comorbidities such as cerebrovascular accident (CVA), Acute Myocardial Infarction (AMI), peripheral neuropathy, retinopathy among others.

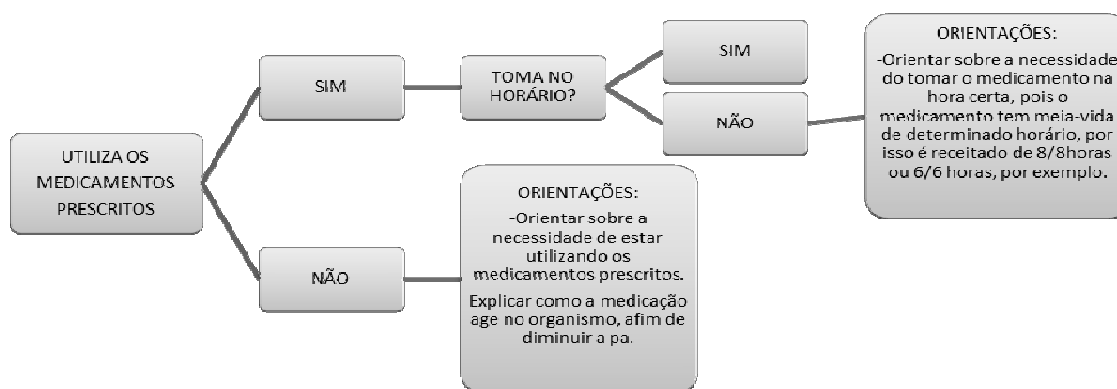
Corroborating this, a study<sup>(8)</sup> conducted with patients with diabetes in the city of Bragança Paulista - São Paulo found that 13% of patients had retinopathy, 10% had peripheral neuropathy and 11.5% suffered from some degree of diabetic nephropathy. Moreover, one study<sup>(9)</sup> performed in Londrina, Paraná, with 193 hypertensive subjects, showed that 57 of these had a comorbidity associated with Hypertension (HBP).

For best operation, each of the educational needs and comorbidities were listed in a table, since then, four meetings with researchers, which included nursing students, doctoral students and guiding teacher were held to discuss each case and seek in literature relevant information that would enable the elucidation of

the difficulties encountered, and allow individualized guidance.

In four meetings, which form the second stage of preparation of protocols, we discussed how they would be prepared and held after the division of subjects for study in subsequent meetings. Regarding the division of the subjects, we chose to study in the second meeting the educational needs related to Diabetes Mellitus and Hypertension.

In this meeting it was held a review of the issues that patients with diabetes and hypertension reported having difficulties. We initiated by the most cited theme in the interview, the difficulty in the use of prescription drugs, according to Figure 1. From this key theme, we elaborated a guiding question: Do you use prescription drugs? If the answer was positive, guidance and encouragement to practice should be performed, and if the answer was negative, guidance on the need to take the medicine in the right dose and time, and the effects that medication could offer were made, it enabled us, during the implementation of the protocols, to develop goals together with patients.



**Figure 1.** Protocol for Systemic Hypertension referring to the use of prescription drugs.

Source: The authors

The difficulty with food was also reported by patients who reported being unable to adequately feed, as it is oriented in the hospital. Given the reports, we direct the literature search for the excessive use of fat, canned food, sodium and sugar, clarifying the effect they can have on the body of these patients and the amount of recommended daily intake, since the quality of life of patients can be increased significantly

even with simple measures of improvement in diet such as increased consumption of fruits and vegetables and reducing food high in fat and sugar<sup>(10)</sup>.

The irregularity of physical exercise has also been the subject of study for the development of protocols; according to the responses of patients we drew up guidelines to understand the need for regular practice, their effects on Hypertension

and Diabetes Mellitus, beyond time and degree of exercise as recommended to obtain a satisfactory result.

Exercise is extremely important if combined with diet and performed regularly, it may provide a number of benefits, such as increasing insulin sensitivity, aid in glycemic control, improve lipid levels and cardiac efficiency, and prevent or reduce obesity<sup>(11)</sup>.

Epidemiological study shows that not performing regular exercise increases the incidence of coronary artery disease (45%), myocardial infarction (60%), hypertension (30%), colon cancer (41%), breast cancer (31%), diabetes type II (50%) and osteoporosis (59%)<sup>(12)</sup>.

Other themes also mentioned during the interview were the presence of alcoholism and smoking, from which the clarifications regarding the harm, especially in the case of these chronic diseases, were developed. Because they are legal drugs in Brazil, smoking and alcohol are two of the key causative factors of Chronic Noncommunicable Diseases (NCDs)<sup>(13)</sup>.

Tobacco use alone accounts for one sixth of all deaths from these conditions in the world, and although smoking has declined in richer countries it has increased in the poorest. Just like smoking, drinking alcohol is very harmful, causing 2.3 million deaths in one year throughout the world, and 60% of these deaths are related to NCDs<sup>(13)</sup>.

For the third meeting the study of comorbidity in which we chose to study beyond autonomic neuropathies (diarrhea, gastroparesis and orthostatic hypotension) has been established, other comorbidities found among respondents as cerebrovascular accident (CVA), peripheral neuropathy, disease Coronary Artery, Peripheral Vascular Disease (stroke), nephropathy and retinopathy. After the study of the etiology of these comorbidities and risk factors, we sought in the literature necessary care to avoid major commitments and allow the self-management of the diseases.

Finally, at the last meeting, we prepared the material for the purpose of assisting in the guidance of patients in the emergency department process. For the preparation of protocols, we elected to use the feature in Office Word 2011 ®, SmartArt, which allows to insert

a graphic to visually communicate information in the form of diagrams or charts, thereby facilitating the orientation process. After insertion of the graphic, the information sought in previous encounters was added in balloons in sequential order according to the answer given by the patient during the interview.

All guidance and clarification on the studied topics during the meetings allowed us in the construction of protocols, this strategy was used in another study<sup>(14)</sup> designed to help professionals in the management of a health problem in specific clinical circumstances, which made possible the quality of life of patients.

After the development of protocols, a meeting with the nursing staff of the emergency department was held to discuss the application of the protocols in this unit. Since then, the protocols were used in the individualized guidance and building targets along the 20 patients of the third stage, with systemic hypertension and / or diabetes mellitus who were hospitalized. These goals were recorded on a guide with guidelines for continued home care.

After the orientation in hospitals, there was the follow up through home visits in these 20 patients, with the objective of reviewing the proposed targets, verify adherence to treatment and developing goals for the coming months, using protocols such as support pipelines, in order to provide conditions for the self-management of care of patients and to evaluate the use of protocols. These results were not described in this paper.

Education for self-management of disease or health education can be seen as ways of providing the individual with knowledge, and attitudes necessary for the performance of self-management care of the disease in seizure control skills and behavior change, especially within the areas of nutrition and physical activity. Throughout this process, it aims to empower the individual to understand and motivate them to effectively participate in their treatment regimen<sup>(15)</sup>.

## FINAL CONSIDERATIONS / CONCLUSION

The orientation in hospitals is part of the systematization of nursing care and contributes to improving the quality of life for patients, as they provide insights to understanding their health-disease process. Thus, protocols are technologies that assist these actions, collaborating with the nursing process in health education and providing self-management of chronic diseases, and try to interfere with the

development of complications caused by underlying diseases and the resulting number of these hospitalizations.

It is understood that nursing care should also be guided in health education through individual instruction and targeted to the needs of each, and protocols can certainly be used by the case manager in evaluations and monitoring of these patients.

## ELABORAÇÃO DE PROTOCOLOS PARA A ALTA HOSPITALAR DE PACIENTES HIPERTENSOS E DIABÉTICOS: RELATO DE EXPERIÊNCIA

### RESUMO

Trata-se de um relato de experiência que tem como objetivo descrever o processo de elaboração de protocolos para a alta hospitalar, realizado no Pronto Atendimento de um Hospital de Ensino da Universidade Federal do Paraná no município de Curitiba-PR, no período de dezembro de 2011 a julho de 2012. A elaboração dos protocolos foi realizada em três etapas: a primeira foi a realização de entrevistas semiestruturadas com 18 pacientes internados com hipertensão arterial e/ou Diabetes Mellitus. Na segunda etapa foram realizados quatro encontros para discutir as respostas dos entrevistados e elaborar os protocolos. A terceira etapa consistiu de visitas domiciliares aos pacientes entrevistados e reunião com os enfermeiros para implantação dos protocolos na orientação para alta. Acredita-se que a utilização de protocolos de alta hospitalar pode ser uma ferramenta valiosa no gerenciamento do tratamento de pacientes com doenças crônicas, pois permite o envolvimento dos mesmos e proporciona um apoio profissional na continuação de sua terapêutica.

**Palavras-chave:** Enfermagem. Diabetes Mellitus. Hipertensão Arterial Sistêmica. Protocolos clínicos. Saúde do adulto.

## DESARROLLO DE PROTOCOLOS PARA EL DESEMPEÑO DE LOS PACIENTES HIPERTENSOS Y DIABÉTICOS: RELATO DE EXPERIENCIA

### RESUMEN

Se trata de un relato de experiencia que tiene como objetivo describir el proceso de elaboración de protocolos para el alta hospitalaria, realizado en el Servicio de Urgencias de un Hospital Escuela de la Universidad Federal de Paraná, en la ciudad de Curitiba-PR, en el periodo de diciembre 2011 a julio de 2012. La elaboración de los protocolos se realizó en tres etapas: la primera fue la realización de entrevistas semiestructuradas con 18 pacientes hospitalizados con hipertensión arterial y/o Diabetes Mellitus. En la segunda etapa fueron realizadas cuatro reuniones para discutir las respuestas de los encuestados y elaborar los protocolos. La tercera etapa consistió en visitas domiciliarias a pacientes entrevistados y reuniones con los enfermeros para la implementación de protocolos en la orientación para el alta. Se cree que el uso de protocolos de alta hospitalaria puede ser una herramienta valiosa en la gestión del tratamiento de pacientes con enfermedades crónicas, pues permite su participación y proporciona un apoyo profesional en la continuación de su terapéutica.

**Palabras clave:** Enfermería. Diabetes Mellitus. Hipertensión Arterial Sistémica. Protocolos clínicos. Salud del adulto.

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