

Clinical pharmacist's performance in the intensive care unit

Atuação do farmacêutico clínico na unidade de terapia intensiva

Papel del farmacéutico clínico en la unidad de cuidados intensivos

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REVISA

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RESUMO

Objetivo Dentro do ambiente hospitalar, a Unidade de Terapia intensiva é a responsável pelo cuidado do paciente crítico. Esse cuidado é realizado por uma equipe multidisciplinar, que trabalha em conjunto para garantir a integralidade do cuidado ao paciente. O Farmacêutico Clínico, dentro dessa equipe, garante a economia e o uso racional dos medicamentos, sem perda da qualidade e eficácia do tratamento. Esse artigo tem como objetivo analisar os benefícios da atuação do farmacêutico dentro da equipe multiprofissional na Unidade de Terapia Intensiva. Para isso, foi realizada uma revisão integrativa de literatura, utilizando descritores de Assistência Farmacêutica, Farmácia Clínica e atuação do Farmacêutico em Unidades de Terapia Intensiva. Dentro dos resultados obtidos destaca-se, em todos os artigos, a importância do Farmacêutico no cuidado ao paciente crítico, a importância e necessidade desse profissional e as melhorias obtidas em hospitais que implantaram o serviço de Cuidado Farmacêutico. A intervenção desse profissional gera melhoria na qualidade de vida do paciente, promove redução de custos, aumenta a eficácia, a segurança e o uso racional de medicamentos.

Descritores: Assistência Farmacêutica; Farmácia Clínica; Unidade de Terapia Intensiva.

ABSTRACT

Within the hospital environment, the Intensive Care Unit is responsible for the care of critically ill patients. This care is a director by a multidisciplinary team, which works together to ensure the integrality of patient care. The Clinical Pharmacist, within this team, guarantees the economy and rational use of medicines, without loss of quality and efficacy of treatment. This article aims to analyze the benefits of the pharmacist's performance within the multidisciplinary team in the Intensive Care Unit. For this, an integrative literature review was carried out, using descriptors of Pharmaceutical Care, Clinical Pharmacy and the pharmacist's performance in Intensive Care Units. Within the results obtained, the importance of the Pharmacist in the care of critical lye, the importance and need of this professional and the improvements obtained in hospitals that implemented the Pharmaceutical Care service stand out in all articles. The intervention of this professional generates improvement in the quality of life of the patient, promotes cost reduction, increases efficacy, safety and rational use of medications.

Descriptors: Pharmaceutical Assistance; Clinical Pharmacy; Intensive Care Unit.

RESUMEN

Dentro del ámbito hospitalario, la Unidad de Cuidados Intensivos se encarga de la atención de los pacientes críticos. Esta atención es dirigida por un equipo multidisciplinario, que trabaja en conjunto para garantizar la integralidad de la atención al paciente. El Farmacéutico Clínico, dentro de este equipo, garantiza la economía y el uso racional de los medicamentos, sin pérdida de calidad y eficacia del tratamiento. Este artículo tiene como objetivo analizar los beneficios del desempeño del farmacéutico dentro del equipo multidisciplinar en la Unidad de Cuidados Intensivos. Para ello, se realizó una revisión integradora de la literatura, utilizando descriptores de Atención Farmacéutica, Farmacia Clínica y el desempeño del farmacéutico en Unidades de Cuidados Intensivos. Dentro de los resultados obtenidos, destacan en todos los artículos la importancia del Farmacéutico en el cuidado de la leja crítica, la importancia y necesidad de este profesional y las mejoras obtenidas en los hospitales que implantaron el servicio de Atención Farmacéutica. La intervención de este profesional genera mejora en la calidad de vida del paciente, promueve la reducción de costes, aumenta la eficacia, la seguridad y el uso racional de los medicamentos.

Descritores: Asistencia Farmacéutica; Farmacia Clínica; Unidad de Cuidados Intensivos.

Introduction

The clinical pharmacist works to promote health, preventing and monitoring adverse events, intervening and contributing to the prescription of medications to obtain positive clinical results, improving the quality of life of patients without, however, losing sight of the economic issue related to therapy.¹

Clinical pharmacy, characterized in the 1960s in the United States, comprises activities aimed at maximizing therapy and minimizing risks and costs, promoting the safe and rational use of medications. It is focused on patient care and aims to promote, protect and recover health and prevent their health problems due to the inappropriate use of medication. The clinical pharmacist's conduct seeks to improve pharmacotherapy, promote the rational use of medications and, whenever possible, improve the patient's quality of life.¹⁻²

The pharmacist has been incorporated into the multidisciplinary team of the ICU, aiming to provide better patient care, contributing, above all, to the monitoring of drugs and the assessment of effectiveness, contributing to the increase in patient safety. In this way, the insertion of the clinical pharmacist in the routine of patient care in the ICU occurs mainly through active participation in daily clinical visits, providing information support to the medical and nursing staff; analyzing and monitoring the effectiveness of pharmacotherapy; performing medication reconciliation; and preventing, identifying and reporting adverse reactions³.

The care environment in the Intensive Care Unit (ICU) is an environment designed for the care of severe and unstable patients, which is generally located in the hospital environment, and is considered to be highly complex⁴.

The present work aims to carry out an integrative review, highlighting the contribution of the pharmacist in the intensive care unit and its importance within the multidisciplinary team in the ICU.

Method

This study is a literature review, with a qualitative approach, which aims to analyze the benefits of the pharmacist's performance within the multidisciplinary team in the Intensive Care Unit, highlighting the contribution and importance of the pharmacist when inserted within the multidisciplinary team in the ICU. The analysis of bibliographic documentation from 2002 to 2019 was used and the descriptors/key words used were: Pharmaceutical Care, Clinical Pharmacy, Intensive Care, Hospital Pharmacy and ICU Pharmacist, with the Boolean operator "AND".

After carrying out the collection of bibliographic data, the results obtained were read. Then, the inclusion and exclusion criteria were applied, selecting the articles to be used in the constitution of the review. The criteria used and established for the inclusion of scientific articles were articles that present the role of the clinical pharmacist in the intensive care unit, as well as the benefits of the interventions of the pharmacist for the clinical improvement of the patient in the Intensive Care Unit. The exclusion criterion was based on articles that did not fit into this period and addressed the role of clinical pharmacists in other hospital sectors not specifically related to intensive care for patients.

Results and Discussion

Data obtained from a search initiated between December 2020 and March 2021, in bibliographic publications attached to databases in electronic format using the search form of the Virtual Health Library (VHL).

Table 1. Articles captured in BVS. 2021.

Origin	Article Title	Considerations/ Theme
BATISTA, Arlane et al Centro de Pós- Graduação Oswaldo Cruz	The pharmacist and the intensive care unit	Describe the interaction of the pharmacist with the entire health team
FERNANDES, Luana Leal. Revista Farol	The importance of the hospital pharmacist together with the multidisciplinary team in the Intensive Care Unit (ICU)	Present the benefit of the professional pharmacist with the multidisciplinary team.
MACIEL, Eduarda Cristina et al Santa Casa BH Ensino e Pesquisa	Pharmaceutical performance in intensive care units: contributions to the rational use of medications	Evaluate the role of the clinical pharmacist in the Intensive Care Unit
MEDEIROS, Renata Daniele Amaral et al. Revista Brasileira de Farmácia Hospitalar	Pharmaceutical interventions in medical prescriptions in the intensive care unit	Reports the main Pharmaceutical Interventions in the Intensive Care Unit
MONTE, L. E. M. et al Associação de ensino superior do Piauí. Revista interdisciplinar de ciências médicas	The importance of pharmaceutical care in intensive care units	Emphasize the importance of the Pharmacist in critical patient care
PILAU, Raquel et al Revista Brasileira de Farmácia Hospitalar,	The role of the clinical pharmacist in an adult intensive care unit: a literature review	Present the role of the clinical pharmacist in the Unit of Adult Intensive Care
JUNIOR et al. Revista Eletrônica de Trabalhos Acadêmicos	The importance of the Clinical Pharmacist in the Intensive Care Unit	Review on the importance of the clinical pharmacist in the intensive care unit and highlight their contribution to the critical care health team.
SILVA et al. einstein (São Paulo)	Pharmacotherapeutic follow-up in a respiratory intensive care unit:	Describe and evaluate the pharmacotherapeutic

	description and analysis of results.	follow-up of the clinical pharmacist in an intensive care unit.
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The pharmacist, part of the multidisciplinary team in the Intensive Care Unit, is able to form a connection between the doctor and the nurse, have an overview of the entire process from prescription to drug administration and, in this way, integrate patient safety in use of medicine in the form of Pharmaceutical Intervention. Thus, the pharmacist can work in the Intensive Care Unit as part of the multidisciplinary clinical visits at the bedside, part of the prevention and monitoring of medication errors, inconsistent prescriptions, pharmacoconomics, drug interactions and any other intervention for the benefit of the patient.⁵⁻⁶

The participation of the pharmacist in the Intensive Care Unit (ICU) is described in Brazil by ANVISA (National Health Surveillance Agency), through Resolution (RDC) February 7, 2010. There are countless humanistic benefits brought about by the clinical pharmacist. The Pharmacist, nowadays, is no longer just a professional with a technical vision, but a professional who cares and is responsible for the patient. One of the main benefits is the consequent cost reduction for the hospital unit. There are reports in the literature that point to a sharp reduction in spending on medications where the pharmacist was present. In addition, there was also a considerable reduction in the rate of hospital infections, in addition to the great relevance of the clinical pharmacist's contribution in relation to patient safety in terms of safe medicine.⁶⁻⁹

The clinical pharmacist, within intensive care, has the role of providing care to the patient, in relation to the rational use of medications. In this way, there is the optimization of pharmacotherapy and the promotion of health and well-being. In addition, it minimizes risks and costs, promotes health, prevents disease and improves the patient's quality of life. Among the contributions that can be seen, the interventions performed are directly related to the assessment of need (inclusion/withdrawal of medication), effectiveness (interventions based on the patient's clinical response) and safety (interventions related to the dose of the medication, minimization of predictable ADRs and reduction of drug interactions that compromise the clinical course), triad that is based on the rational use of drugs.^{7,10,11}

Taking into account that institutional clinical protocols were part of the references used by pharmacists for decision-making, there is a contribution to improve the adherence of these protocols in units that have the participation of the clinical pharmacist, bringing benefits to patients and also reinforcing the role of clinical pharmacy in medical care.^{7,9}

In the surveys surveyed it is concluded that the presence of the Pharmacist in Intensive Care Units improves the patient's quality of life, reducing costs, increasing the effectiveness of medicines and safety for use by patients. Thus, its absence results in an increase in the time/cost of hospitalizations and problems related to drug interactions.^{8,11,12}

Conclusion

Patients who are hospitalized in Intensive Care Units may be considered at higher risk of developing drug-related problems, with a lethal and serious severity. The Pharmacist, inserted in this environment, together with the multidisciplinary team, works by ensuring effective, safe and rational pharmacotherapy, increasing the effectiveness of the treatment and reducing the side and toxic effects of medications.

The implementation of this service in hospitals, in addition to increasing the patient's well-being, also increases the valuation of the pharmacist by the healthcare team.

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