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Der Pharmacia Lettre, 2022, 14(5):13-15
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Medication Therapy Management Matters for Reducing Secondary Long-Term Harm from Hypertension: An important Pharmacists Role

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Received: 01-Jun-2022, Manuscript No. DPL-22-65531; **Editor assigned:** 03-Jun-2022, Pre QC No. DPL-22-65531 (PQ); **Reviewed:** 17-Jun-2022, QCNo.DPL-22-65531; **Revised:** 24-Jun-2022, Manuscript No. DPL-22-65531 (R); **Published:** 01-Jul-2022, DOI: 10.37532/dpl.2022.14.13.

ABSTRACT

This is a critical analysis that had a guide the paper published in 2016 "Impact Assessment of Pharmaceutical Care in the Management of Hypertension and Coronary Risk Factors after Discharge". In this manuscript consolidated the clinical results of the Medication Therapy Management (MTM) in the practice of pharmaceutical care. For this it was substantiated to discussion with results of systematic reviews and approached the evidence-based pharmacoeconomic analyses. Regarding important results increase the control of systemic blood pressure from 54% to 93% even after three years of patient discharge. Consequently, there is a 30.3% reduction in cardiovascular risk on the Framingham scale. The Incremental cost-effectiveness analysis ratio is US\$ 605.09 in MTM period and US\$ 128.03 in post-MTM period, reaching US\$ 1,725.00 and US\$ 740.00 respectively. It is noteworthy that the resignification of the pharmaceutical profession on the way to resuming clinical practice is essential for improving the effects of this cascade of events that begins in the management of drugs to solve drug-related problems and changes in patient behavior and achieves the longevity regarding greater patient's quality of life. Then this manuscript may supply a gap for professionals in this field regarding the lack of critical citable information for discussing their results in pharmaceutical care research.

Keywords: Pharmaceutical services, Medication therapy Management, Hypertension, Cost effectiveness evaluation.

DESCRIPTION

This is a critical analysis that had a guide the paper published by Cazarim et al. "Impact Assessment of Pharmaceutical Care in the Management of Hypertension and Coronary Risk Factors after Discharge" [1]. It is noteworthy that currently 71% of deaths in the world are due to chronic non-communicable diseases, which represents 41 million annual deaths. Almost 75% of NCD and the, deaths occur in low- and middle-income countries [2]. Hypertension is one of the most important chronic non-communicable morbidities a multifactorial clinical condition characterized by high and sustained levels of blood pressure [2,3]. Hypertension is considered the main risk factor for the occurrence of other diseases of the circulatory system, such as cardiovascular diseases. Thus, a 10 mmHg increase in systolic blood pressure is capable of increasing the risk of developing cardiovascular diseases by up to 25%, representing a risk association equal to

1.2 in observational studies [4].

Certainly pharmaceutical care is capable to optimize outcomes and improving resources for public health systems through its impact on hypertension costs [5]. MTM has been shown as a great service for promoting pharmacotherapy adherence, empowerment for self-care, and pharmacotherapy monitoring, which are essential for solving related-drug problems and improving outcomes like quality of life and cardiovascular [6]. The evidence of MTM effects in hypertension has been highlighted due to its wide potential for mitigating the occurrence of cardiovascular diseases and their harms. In this sense is important highlights the pharmacist's role in clinical pharmacy [7,8].

The evaluation and monitoring of patients in primary or preventive health care when practiced by the pharmacist in the MTM service, present in pharmaceutical care, increase the control of systemic blood pressure from 54% to 93 even after three years of patient discharge. Consequently, there is a 30.3% reduction in cardiovascular risk on the Framingham scale [1]. In addition the care profile of patients is also capable of being modified with the MTM in models of health systems in low and middle income countries. It has been shown that the care profile of hypertensive patients is modified and changes from an emergency to a preventive trend. The average number of consultations per patient/year in primary care was 1.66 ± 1.43 before pharmaceutical care compared to discharge 2.36 ± 1.73 , [p=0.012]. The guidelines recommend at least three consultations in primary care or preventive care for hypertensive patients per year [3,9]. Furthermore, results related to cost-effectiveness analysis showed through Monte Carlo sensitivity analysis presented that the mean incremental cost-effectiveness analysis ratio is US\$ 605.09 in MTM period and US\$ 128.03 in post-MTM period, reaching US\$ 1,725.00 and US\$ 740.00 respectively. When analyzed by the threshold of a low middle income country for example, it represents that in the worst scenery all alternatives for MTM in the pharmaceutical care were cost-effective and 24.5% and 22.1% of chances to be a dominant strategy, less cost, and more effectiveness, for the health systems in the preventive care for hypertension [10,11].

In fact in many countries there is still no implementation of pharmaceutical care in the health systems. Among numerous points maybe its highlights one main cause for this the development of the pharmaceutical profession. The pharmacist was for a long time far from clinical activities for the patients' care and, it was focused on industrial activities, drug production or inserted in laboratory activities and medicine regulatory or logistics activities [12]. Chronic-non communicable diseases have been more prevalent and their clinical dynamics combined with human longevity have created a very high complexity in health care. Inherent to this, the increase in drug-related problems has been worrying, which has implied a reduction in the quality of life, especially in patients with chronic-non communicable diseases and affected by cardiovascular diseases the most prevalent worldwide [13]. The multi-professional care is extremely fundamental in this way. Then, regarding the importance of the pharmacist's role, it is essential to reinforce the worth of academic education related to professional competencies for pharmaceutical care, which are based on the concepts brought by Miller's pyramid, which is formed from bottom to top as follows doing (action), show how to do it (performance), know how to do it (competence) [14].

It is noteworthy that the resignification of the pharmaceutical profession on the way to resuming clinical practice is essential for improving the effects of this cascade of events that begins in the management of drugs to solve drug-related problems and passes by changes in patient behavior and achieves the longevity with greater patient's quality of life. For this beyond health policies, the knowledge must be highlighted as a basic factor for obtaining competence and developing the requested skills for occupying this gap in health. Additionally, creating fields of action in health systems for professionals can prepare them and act for supporting the health care's demands.

DECLARATION SECTION

Ethical approval and consent to participate

Not Applicable.

Consent for publication

Not Applicable.

Availability of supporting data

All data were available from the study: Cazarim MD, de Freitas O, Penaforte TR, Achcar A, Pereira LR. Impact assessment of pharmaceutical care in the management of hypertension and coronary risk factors after discharge. *PloS one*. 2016 Jun 15;11(6):0155204.

Competing interests

None declared. The authors confirm that the content of this paper has no conflict of interest.

Funding

Funding information is not applicable / No funding was received.

Authors' contributions

MSC. Compliance data, design, writing, revision, discussion, final review.

ACKNOWLEDGEMENT

I thank Estael L.C. Cruz-Cazarim, Pharmacist, employee from Faculty of Pharmaceutical Sciences of Ribeirão Preto, University of São Paulo, Brazil. I thank John Carpenter, Ribeirão Preto, SP, Brazil, for the English revision.

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