

Mini Review

Role of Care Manager in Chronic Cardiovascular Diseases

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Abstract

Cardiovascular diseases (CVD) are an important public health problem, affecting especially people over 65 years. The significant change in the structure of the population, with the progressive increase of the elderly, determined a major incidence of chronic diseases. Chronic diseases require a regular monitoring of clinical parameters in order to control the natural evolution of the pathology and to make appropriate therapeutic measures. For this reason, it's important that the patient has an adequate knowledge and involvement in the management of the disease, in order to improve clinical outcomes and reduce hospitalizations.

Some studies in scientific literature demonstrated the efficacy and utility of a multi-specialized team that follow the patient in the natural history of chronic disease. These studies noted the improvement of clinical parameters and better adherence to medical therapy in patients joined by the care manager. The care manager is a sort of bridge between patients, general practitioners and other specialist. He assists the patient individually, helping him to adopt behaviors and lifestyles suitable to his health condition, and encouraging greater self-sufficiency in the monitoring of clinical parameters.

The aim of present work is to provide a review of the scientific literature regarding the effectiveness of the introduction of care managers in the setting of clinical practice.

INTRODUCTION

Cardiovascular diseases (CVD) are an important public health problem, being one of the major causes of mortality in the world, especially in subjects over 65 years [1]. It's just clear that the age increases the risk of developing cardiovascular disease. In the last years, there has been a substantial increase in life expectancy in the world, with 10.7% of men and 14% of women over 65 years.

This significant change in the structure of the population has had a substantial impact on the medical panorama. In fact, with the progressive increase of the elderly, there was a major incidence of chronic diseases. These kind of diseases differ significantly from the acute one for the necessity of a continuous therapeutic compliance between the doctor and patient. Chronic disease require a regular monitoring of clinical parameters in order to control the natural evolution of the pathology and to make appropriate therapeutic measures. For this reason it is necessary that the patient has adequate knowledge and involvement in the management of the disease, in order to improve clinical outcomes and reduce hospitalizations [2].

THE CARE MANAGER IN CHRONIC CARDIOVASCULAR DISEASES

The Chronic Care Model (CCM) developed by Wagner et al. [3] and the Innovative Care for Chronic Conditions (OCCC), edited by the World Health Organization (WHO) [4] proposed that ideal care for chronic conditions is achieved when healthcare providers interact with informed patients. The essential ingredient of effective chronic care treatment is the partnership between the patient and health professionals because it offers the opportunity to empower patients to become more active in managing their health. When patients are more informed, involved, and empowered, they interact more effectively with healthcare providers and strive to take actions that will promote healthier outcomes [5].

In order to the complexity of management of chronic cardiovascular disease, Fletcher G. F. and his colleagues [6] suggested the establishment of a multi-specialized team that rotates around the patient. This novelty in clinical practice improves control disease and it makes the possibility to

individualize therapy, on the basis of patient's real clinical conditions.

On the basis of these considerations, a recent paper published by our research group evaluated the introduction in the territory of "care managers", as a bridge between the general practitioners (GP), the patient and other medical specialists [7].

The task of the care manager is to assist the patient individually, helping him to adopt behaviors and lifestyles suitable to his health condition, and encouraging greater self-sufficiency in the monitoring of the parameters through the knowledge of the disease.

In this pioneer project, called Leonardo project, thirty care managers have been introduced in 83 GPs's studies, in order to create a direct collaboration between the patient, GPs and other medical specialists. In particular it were been followed patients suffering with certain CVD, with risk factors for CVD, diabetes and heart failure.

At the end of Leonardo project, the patients showed a greater awareness in the management of their disease. The introduction of the care managers in clinical practice has resulted in improvement of clinical parameters and better adherence to medical therapy. The patients showed also a greater control of the underlying disease and a major gratification about the quality of health.

A similar result was obtained from the study conducted by Ishani [8], in which the introduction of nurse case managers in a population of diabetic patients has led to a greater control of multiple cardiovascular risk factors at one year. This study demonstrated that the management of the diabetic patient by the introduction of a specialized nurse determines a better control of hyperglycemia, hypertension, and hyperlipidemia.

Deales A. and his colleagues come to the same conclusions in a work accepted in 2013 [9]. His research group also analyzed the effectiveness of the introduction of a care manager in the control of major cardiovascular risk factors. The group joined by the care manager has achieved a greater control of major cardiovascular risk factors, in particular diabetes and hypertension. No change appears to occur in hypercholesterolemia, smoking status and obesity.

A further application of the care manager in primary care setting could be directed to implement preventive strategies in patients with chronic cardiovascular disease.

A study conducted by our research group has confirmed that carotid atherosclerosis is strongly associated with coronary atherosclerosis [10]. On the basis of this scientific evidence, it would be useful that patients with asymptomatic carotid plaques perform a screening in the search for an occult ischemic heart disease. In fact, it's well known since the 1980s that asymptomatic ischemia is the most common manifestation of coronary artery disease [11].

For this reason, the introduction of stable care managers in the primary clinical setting could create the conditions not only for a better control of the disease, but also for the prevention of adverse events in patients with chronic cardiovascular disease.

CONCLUSIONS

Despite these brilliant results reported in the literature, in real life it could present some limitations.

Leonardo project showed that in many GP studies miss the figure of the nurse professional. This behavior results in a centralization of therapeutic strategies in the hands of the GPs. For this reason, GPs have a considerable overload of work and it reduces care of the patient with chronic disease.

The hope of these studies is to promote as soon as a regulation of this multi-specialized team by the institutions. A recent study conducted in Ontario in fact pointed out the lack of standardized protocols and recognized the role of the nurse in the management of chronic disease in primary care [12].

The European Commission in 2010 launched the European innovation Partnership on Active and Healthy ageing as strategic initiative for Europe to challenge member states, industries and health stakeholders in the definition of an equal, sustainable and inclusive model to tackle ageing, frailty and chronicity [13].

For this reason, the European Commission in order to achieve the objectives of the initiative invited all Member States, Regions, Industries and organizations from all over Europe to commit directly in operational plans.

Outcome of this initiative will be relevant in order to support Government choices towards the introduction of Healthcare Systems innovative able to overcome barriers such as changing management and cultural approach to care.

From the previous considerations it is evident that the collaboration between doctor and nurses represent the focal point on which to build the relationship with the patient. It's clear that a positive and constructive interaction between the two professions improves compliance by the patient [14].

However, in previous works, have been highlighted difficulties in collaboration between doctors and nurses. Lockhart-Wood stresses that communication skills, the ability to capture the point of view and respect for others' professional skills are fundamental prerequisites for the establishment of a working environment aimed at the treatment of the chronic disease [15].

REFERENCES

1. Leal J, Luengo-Fernández R, Gray A, Petersen S, Rayner M. Economic burden of cardiovascular diseases in the enlarged European Union. *Eur Heart J*. 2006; 27: 1610-1619.
2. Sochalski J, Jaarsma T, Krumholz HM, Laramée A, McMurray JJ, Naylor MD, Rich MW. What works in chronic care management: the case of heart failure? *Health Aff (Millwood)*. 2009; 28: 179-189.
3. Wagner EH. Chronic disease management: what will it take to improve care for chronic illness? *Eff Clin Pract*. 1998; 1: 2-4.
4. World Health Organization Innovative Care for Chronic Conditions: building blocks for action. Geneva: WHO, 2002.
5. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. *JAMA*. 2002; 288: 2469-2475.
6. Fletcher GF, Berra K, Fletcher BJ, Gilstrap L, Wood MJ. The integrated team approach to the care of the patient with cardiovascular disease. *Curr Probl Cardiol*. 2012; 37: 369-397.

7. Ciccone MM, Aquilino A, Cortese F, Scicchitano P, Sassari M, Mola E, Rollo R . Feasibility and effectiveness of a disease and care management model in the primary health care system for patients with heart failure and diabetes (Project Leonardo). *Vasc Health Risk Manag.* 2010; 6: 297-305.
8. Ishani A, Greer N, Taylor BC, Kubes L, Cole P, Atwood M, Clothier B . Effect of nurse case management compared with usual care on controlling cardiovascular risk factors in patients with diabetes: a randomized controlled trial. *Diabetes Care.* 2011; 34: 1689-1694.
9. Deales A, Fratini M1, Romano S2, Rappelli A3, Penco M2, Perna GP4, Beccaceci G5 . Care manager to control cardiovascular risk factors in primary care: the Raffaello cluster randomized trial. *Nutr Metab Cardiovasc Dis.* 2014; 24: 563-571.
10. Ciccone MM, Niccoli-Asabella A, Scicchitano P, Gesualdo M, Notaristefano A, Chieppa D, Carbonara S . Cardiovascular risk evaluation and prevalence of silent myocardial ischemia in subjects with asymptomatic carotid artery disease. *Vasc Health Risk Manag.* 2011; 7: 129-134.
11. Kaski JC, Cosín Sales J, Arroyo Espliguero R . Silent myocardial ischaemia: clinical relevance and treatment. *Expert Opin Investig Drugs.* 2005; 14: 423-434.
12. Lukewich J, Edge DS, VanDenKerkhof E, Tranmer J . Nursing contributions to chronic disease management in primary care. *J Nurs Adm.* 2014; 44: 103-110.
13. Innovation Union. A Europe 2020 Initiative.
14. Larson E. The impact of physician-nurse interaction on patient care. *Holist Nurs Pract.* 1999; 13: 38-46.
15. Lockhart-Wood K. Collaboration between nurses and doctors in clinical practice. *Br J Nurs.* 2000; 9: 276-280.

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