## An Attempt of Cost Analysis of Heart Failure Patients at Cardiology Department at Kasr Al Aini Hospitals: A Micro-Costing Study from Social Perspective

Authors: Eman Elsebaie, A. Sedrak, R. Ziada

**Abstract :** Introduction: In the recent decades, heart failure (HF) has become one of the most prevalent cardio-vascular disease (CVDs), especially in the elderly and the main cause of hospitalization in Egypt cardiology departments. By 2030, the prevalence of HF is expected to increase by 25%. Total direct costs will increase to \$818 billion, and the total indirect cost in terms of lost productivity is close to \$275 billion. The current study was conducted to estimate the economic costs of services delivered for heart failure patients at the cardiology department in Cairo University Hospitals (CUHs). Aim: To gain an understanding of the cost of heart failure disease and its main drivers aiming to minimize associated health care costs. Subjects and Methods: Economic cost analysis study was conducted for a prospective group of all cases of HF admitted to the cardiology department in CUHs from end of March till end of April 2016 and another retrospective randomized sample from patients with HF, during the first 3 months of 2016 to measure estimated average cost per patient per day. Results: The mean age of the prospective group was  $48.6 \pm 17.16$  years versus  $52.3 \pm 11.5$  years for the retrospective group. The median (IQR) of Length of stay was 15 (15) days in the prospective group versus 9 (16) days in the retrospective group. The average HF inpatient cost/day in the cardiology department during April 2016 was 362.32 (255.5) L.E. versus 391.2(255.9) L.E. during January and February 2016. Conclusion: Up to 70% of expenditure in the management of HF is related to hospital admission. The average cost of such an admission was 5540.03 (IQR=7507.8) L.E. and 4687.4 (IQR=7818.8) L.E. with the average cost per day estimated at 362.32 (IQR=255.5) L.E. and 386.2(IQR=255.5) L.E. in prospective and retrospective groups respectively.

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