A Heart Failure Calendar for Education and Disease Management

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Citation

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Abstract

Heart failure is a disease that requires patients to adhere to a specialized plan of care to prevent exacerbations and frequent admissions to the hospital. A multidisciplinary group collaborated and developed an educational tool with topics related to the management of heart failure. The calendar also acts as a journal that patients may use to track their weights and blood pressures for self-management and communication with their health care provider.

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INTRODUCTION

Chronic heart failure (HF) is a debilitating; disease affecting approximately 4.7 million individuals in the United States, with an additional 550,000 new cases diagnosed every year.[1] Not only does this disease affect the patient's quality of life, there is an extreme economic burden for the patient, family, and health care system. Management of HF requires frequent follow-ups with health care providers, along with good communication, and patients that adhere to their prescribed medical regimen. Education is a key component in managing the patient's HF. Patients learn through different learning domains: auditory, visual, and psychomotor. Therefore, it is important that various modes of media be provided to patients, which may include: individual patient counseling, written materials, audiovisual materials, or computer-based educational programs.

The purpose of this article is to describe the process of creating a comprehensive, educational tool for patients with chronic HF that also serves as a communication tool between the patient and health care provider to manage the disease. A multidisciplinary team including nursing management, advanced practice nurses, cardiac rehabilitation, physical therapists, pharmacists, dieticians, physicians, a project manager, and marketing experts collaborated to design and implement this type of educational material. This tool is a 12-month HF calendar/ journal, which includes spaces in each day of the week for patients to record their daily weights, blood pressure, and blood glucose levels if applicable. Each month contains important educational information for patients to better manage their HF; topics include diet, exercise, weight management, smoking cessation, and medication information.

LITERATURE REVIEW

HF is defined as the heart's inability to pump blood effectively to meet the body's physical needs. There are many causes of heart failure, including: myocardial infarction, hypertension, heart valve disease, cardiomyopathies, alcohol, and drug abuse. HF is a complex clinical syndrome in which symptoms develop as a result of a structural or functional cardiac disorder.[2] The diagnosis of heart failure is made by a careful history and physical examination. The primary signs and symptoms of HF are dyspnea, fatigue, and fluid retention. Dyspnea and fatigue may limit physical activity and exercise tolerance. Fluid retention may cause pulmonary congestion and peripheral edema.[3] Patients must carefully monitor and report fluid balance to their health care providers to prevent volume overload that can lead to HF exacerbation and admission to the hospital.

The Agency for Healthcare Research and Quality found that self-management programs for chronic diseases improved patients' health and reduced the utilization of health care resources, such as possible preventable readmission to hospitals.[4] Self-management are those behaviors by the patient that intend to maintain or improve health or prevent

exacerbation.[5] Pill counts, activity monitors, diet diaries, and patient's self-report are just a few methods that health care providers use to measure a patient's adherence to the prescribed health care regimen. HF patients need to be taught to monitor how much fluid they ingest during the day so they can avoid exceeding the limit, prescribed by their health care provider, to prevent exacerbation of HF symptoms. HF patient outcomes depend greatly on the patient's ability for self-care and management of the condition. [5] It is imperative they weigh themselves daily and report significant weight gains. The definition of significant weight gain in pounds or kilograms is determined by their health care provider.

A multidisciplinary team approach in managing HF is recommended due to the complex care, the patient's potential for poor quality of life, frequent hospital readmissions and cost containment.[6] The American Heart Association (AHA) has recommended the team approach in treating HF.[7] The AHA states that a successful model for treating patients with HF includes staff understanding the pathophysiology of HF; patient assessment; management and evaluation of symptoms; education and counseling on medications; dietary education; and physical exercise recommendations. [6] The team approach provides the necessary personnel to assist the patient in managing their disease process.

DEVELOPMENT PROCESS

Without the enthusiasm and commitment to patient education of the multi-disciplinary team, this project would not have been achieved. It required patience, tenacity and cooperation from everyone involved. Time, resources and money were low but clinical expertise was abundant. Members of the team with several different clinical backgrounds composed pieces of education for the monthly calendar/journal. Several educational topics were included in the HF calendar listed in Table 1.

Figure 1

Table 1: HF calendar educational topics.

Weight Management	Eating Right for a Healthy Heart	Staying Healthy with Diabetes
Smoking Cessation	Symptom Management	Lowering Sodium Intake
Blood Pressure Management	Anatomy of a Food Label	Tips for a Healthy Lifestyle
Benefits of Exercise	Limiting Fluid Intake	Stress Management
Medication Page	Medication Tracking	Resources

It was also concluded that inspirational quotes, weight, glucose level and blood pressure tracking would be a part of the calendar. The next step was to include a project manager in the process. The project manager was devoted to coordinating and organizing the efforts of the multidisciplinary team until the final product was completed and published. The project manager collaborated with an internal marketing representative to provide expertise and the possibility of funding for the calendar. A graphics designer who had previously developed numerous publications within the hospital was also included to present several printing options to the committee. It was concluded after analyzing the target audience, team educational objectives and marketing goals that a full color 8 X 11 calendar in the quantity of 5000 would be printed. The marketing department agreed that this was a good marketing tool and they would commit the money to have the graphics artist create a condensed prototype of the calendar. The team was hopeful that this prototype would serve as an enthusiasm builder to gather more funds to complete the full printing of the calendars. The team, with support from the Executive, concluded this was an excellent educational initiative and that we should request funding from various external and internal sources. The pharmacists were able to secure funding from unrestricted educational grants provided by pharmaceutical companies.

Although time was limited the team was committed to publishing the calendar by January 2003. Laying out the 12 months of information and incorporating all-important educational pieces and resources proved to be a challenge. The best way to accomplish this was to gather the multi-disciplinary team, graphic artist, project manager, and marketing representative to collaborate and lay out the calendar. In this discussion, a business reply card and pocket size medication card were also envisioned to provide feedback for the creation of future calendars. Each team member agreed to edit their assigned educational pieces and the graphics artist made the appropriate changes. After several days of editing and verification of information the calendar was completed and published.

DISSEMINATION

The calendar's creation also coincided with achieving the hospital's goals of decreasing length of stay and readmissions, and preventing adverse events for HF patients. Calendars were distributed to all cardiology and medicine nursing units that care for HF patients. Calendars were also distributed to all cardiologists and internal medicine physicians who admit HF patients to the hospital as well as other system hospitals.

Figure 2

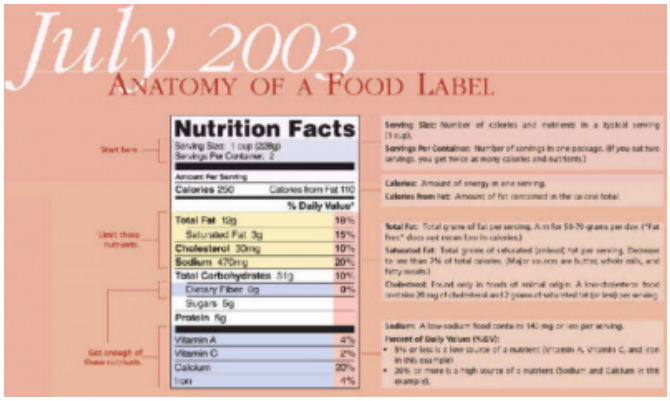


Figure 3

PRACTICE IMPLICATIONS

The multidisciplinary team plans for this HF calendar to be a valuable communication tool between patients and their health care providers. Patients will have valuable information available regarding medications, diet, fluid management, daily weights and exercise for reading and referral. If utilized as the design was intended, patients will have the ability, knowledge, and power to help manage their disease. Patients will be able to visualize trends in their weight, which may allow for early intervention if the weight begins to trend upward. Patients may feel more control over their ability to manage their disease and setting their own health care goals.

Health care providers will have a report of the patient's weight trends that may be useful in medication adjustment. Trends in weight may be correlated to the patient's activities, diet, and medication regimen. The calendar can be used to reinforce patient education materials or may assist in identifying topics that patients need or would like to have more information about.

EVALUATION

The multidisciplinary team will evaluate the effectiveness of the HF calendar in the following ways: patient feedback, health care provider feedback, and readmission rates. The patient feedback form is a postage paid card attached to the calendar that can be mailed to the hospital. At that time, the patient can request a 2004 calendar. Health care providers will be surveyed on the content of the calendar; how many were distributed to their HF patients; and if the patients brought the calendar to their appointments with their daily weights, blood pressure and glucose levels recorded. Finally, a tracking mechanism is being developed in order to measure the readmission rates, for those patients that did receive the HF calendars. For those patients that received the calendars but required readmission, an evaluation will be initiated to determine if the patient was using the calendar and if any modifications and/or revisions of the calendar are needed.

Figure 4

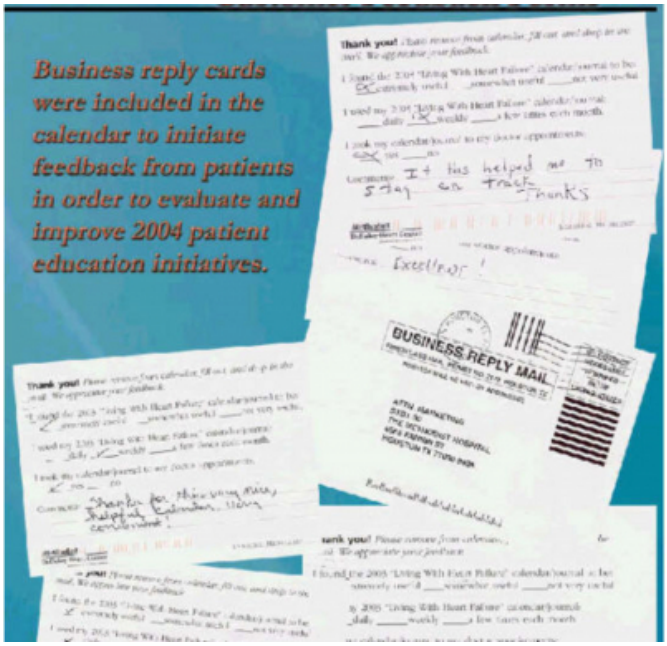
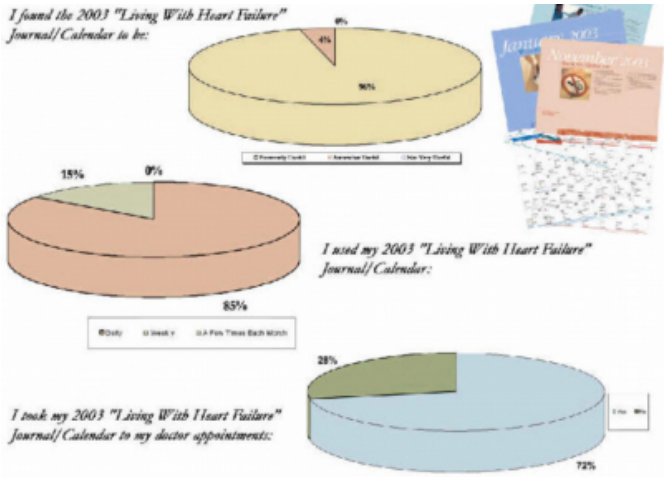


Figure 5



FUTURE

The future plans for the HF calendar include analyzing the results from our patient evaluations, health care provider evaluations, and readmission rates. Once we have this information we will revise the HF calendar as necessary. A review and update of the educational information on the calendar will also be completed. The calendar will be maintained with information on the most current evidence available, including the current guidelines for management of chronic heart failure by the American College of Cardiology and the AHA.

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