

Heart failure assessment at the community pharmacy level: A feasibility pilot study

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Abstract

Background: A key element missing in disease-management programs for heart failure (HF) is participation of the community pharmacist. The purpose of this study is to determine if a simple and efficient clinical tool will allow community pharmacists to identify patients at risk for worsening HF.

Design: The One Minute Clinic for Heart Failure (TOM-C HF) was developed as a simple six-item symptom screening tool to be used during routine patient/customer interactions.

Setting: Ten community pharmacies located in the upper Midwest.

Patients: Self-identified HF patients.

Results: 121 unique patients were evaluated over a 12-month period. The application of this clinical tool took between 1 and 5 minutes in over 80% of the interactions. Seventy-five patients (62%) had one or more signs or symptoms of worsening HF. The most common symptoms detected included edema (39%) and increased shortness of breath (17%). Self-reported weight gain of more than 5 pounds was seen in 19% of patients.

Conclusion: The TOM-C HF tool was used to identify patients in a time-efficient manner in the community pharmacy setting who appear to be developing worsening HF. Inclusion of the community pharmacists as an early screen for HF decompensation may be an important link in disease-management programs to help reduce hospital readmission rates.

Keywords: Disease management, clinical tool, heart failure, community pharmacy.

Received March 5, 2014, and in revised form May 17, 2014. Accepted for publication June 16, 2014.

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Acknowledgments: Dorothy Hoang, Richard Walls, and Lindsey Westerhof for their hard work and dedication in collecting the data for the project.

Disclosure: The authors declare no conflicts of interest or financial interests in any product or service mentioned in this article, including grants, employment, gifts, stock holdings, or honoraria.

Author information continued at the end of the text on p. 640.

J Am Pharm Assoc. 2014;54:634–641.
doi: 10.1331/JAPhA.2014.14039

As the average age of the population has increased over the years, so has the incidence of heart failure (HF). The increased number of patients with HF has resulted in a dramatic increase in health care costs for the treatment of HF.¹ The majority of the cost is associated with hospitalizations for the treatment of acute or decompensated HF. In addition to increased cost, hospitalization and re-hospitalization leads to significant morbidity for the patient. A key factor that leads to hospitalization is fluid accumulation, which can often be detected by easily recognizable signs and symptoms of fluid overload. If these signs and symptoms of worsening HF are detected early, medical intervention may prevent certain near-future hospitalizations. Because of their easy accessibility and close relationships with patients, community pharmacists are the ideal health professionals to conduct an intervention program for HF. Unfortunately, at this time there is no established disease management or intervention program for HF that is designed with the community pharmacist as a provider.

In an attempt to stem the increased hospitalizations and health care expenditures, disease type management programs have focused on transition of care. Some programs have attempted to extend care to the community setting in a number of novel approaches with mixed and limited results. Results from one study by Peikes et al.²

evaluating 15 care coordination programs involving Medicare patients found that only two programs had a favorable effect on hospitalizations.

Critical features that were shared among the successful care coordination programs included (1) frequent in-person contact (on average one in-person contact per month), (2) teaching patients how to take their medication, and (3) physician contact. Our approach, as discussed below, magnifies these characteristics of a successful program. The community pharmacy and pharmacists are well-positioned to see HF patients on a frequent basis, are experts in medication adherence and counseling, and have established known relationships with physician offices (including physicians, physician assistants, and nurse practitioners).

To further exemplify the findings from Peikes et al., a recent study in 140 HF patients with concurrent controls investigated an advanced practice nurse-led transitional care program.³ This program featured, at minimum, eight home visits by an advanced practice nurse. The study found that 30-day readmission rates were reduced in the intervention group. However, given the intensive nature of the intervention, the model was not financially viable. Other studies that have employed pre-discharged interventions and post-discharged house calls have seen similar results.⁴⁻⁶

The key to success for a community pharmacy-based HF interventional program is to have a simple and effective tool that requires minimal time to implement for both the pharmacist and the patient. Such a tool can be developed for HF because there are clear signs and easily recognized symptoms that can lead to hospitalizations. In the outpatient setting, changes in body weight, peripheral edema, dyspnea, orthopnea, and sleep disturbances are important signs and symptoms that indicate clinical decompensation and the potential need for hospitalization. To illustrate this point, data from a recent large outpatient HF trial evaluating the role of tolvaptan showed that among patients hospitalized for worsening HF, 90% of patients had prior symptoms of dyspnea and 79% had edema.⁷ These signs and symptoms are easily identifiable by either the pharmacist or the patient, when prompted. In addition, at the community pharmacy level, once symptoms are identified, there are several ways a pharmacist may intervene, in real time, to potentially prevent a hospitalization. The overall goal of this study is to establish a community pharmacist-based HF intervention program that can stand alone as well as be incorporated into a comprehensive disease-management program for HF.

At a Glance

Synopsis: This survey of self-identified heart failure (HF) patients from 10 community pharmacies located in the upper Midwest presents data from use of a novel clinical tool that in the majority of cases took between 1 and 5 minutes to implement. The patient-centered aspect of the tool was divided into two sections—the first a set of questions about symptoms of fluid overload, and the second evaluating symptoms of worsening HF. Another component of the tool asked pharmacists to document their intervention and the time it took to complete the interaction with the patient. Pharmacists also reported their perception of the value of the tool.

Analysis: *Community pharmacists using a simple clinical tool can efficiently identify likely signs and symptoms of worsening HF in self-identified HF patients. The relatively high percentage of patients with potentially worsening HF suggests a real need for community pharmacy intervention. The likelihood that The One Minute Clinic for Heart Failure (TOM-C HF) clinical tool can be incorporated into a busy retail environment is dependent on the time needed for administration and perceived value. As the community pharmacy practice model shifts to providing a greater number of clinical, primary care services, the tool becomes very appealing, especially compared to more time-consuming clinical activities such as medication therapy management.*

Objective

The objective of this study is to perform a pilot project to determine the feasibility of a community pharmacist-based HF intervention program using a novel clinical tool, The One Minute Clinic for Heart Failure (TOM-C HF).

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