

Improving Resident Skills in Congestive Heart Failure Management with a Multidisciplinary Curriculum



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Background

- The care of patients with congestive heart failure (CHF) is complex and requires close monitoring. More hospital systems have started developing CHF clinics and services to improve care and reduce readmissions.
- Despite these changes, in 2018, the second most common diagnosis associated with hospital readmission was still CHF [1].
- Previous studies have shown that cardiologists are more adherent to the latest standards of care than family medicine physicians [2].
- We hypothesized that by engaging resident physicians in a multidisciplinary CHF clinic curriculum, we could improve their comfort with management of patients with CHF as well as their knowledge on the most current guidelines in care.

Quality Improvement Objectives

- Evaluate baseline knowledge of goal-directed medical therapy (GDMT) for CHF in residents.
- Evaluate awareness of our hospital's CHF clinic among residents.
- Create a curriculum that engaged residents in a multidisciplinary CHF clinic.
- Improve resident knowledge of GDMT, awareness of the CHF clinic and comfort in management of CHF by 25% in one academic year after applying a CHF clinic curriculum.

Methods

- We developed a curriculum for residents to work in our hospital CHF clinic where each resident spent 3-5 days working with the multidisciplinary team tasked with managing CHF patients and reducing readmission rates.
- Resident roles included providing hospitalized patients education on CHF prior to them being discharged and seeing patients in the outpatient clinic for monitoring.
- In our first cycle, six residents were enrolled in the curriculum and we collected a narrative description of the experience from them.
- Data was collected on resident comfort and knowledge of guideline-directed medical therapy (GDMT) in CHF and we compared resident knowledge of GDMT and comfort with applying GDMT between those who engaged in the curriculum and those who did not.

Results

- 29 residents completed the survey and the majority were family medicine residents (62%).
- All of them had experience in the care of patients with CHF.
- Residents who had participated in the CHF clinic curriculum were more likely to have referred patients to the CHF clinic than those who did not (100% and 65%).
- Residents who participated in the curriculum had a higher average score on board-style questions regarding GDMT than those who did not.
- Residents who participated in the curriculum had a better understanding of AHA/ACC Guidelines and LifeVest indications.

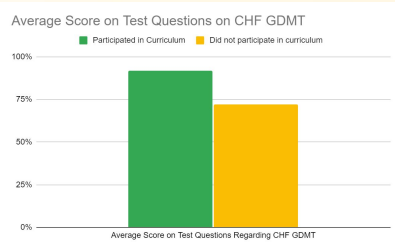


Figure 1. Average Score on GDMT Test Questions in Curriculum Participants vs Non-Participants

	Participated in Curriculum	%	Did not participate in curriculum	%
n	6		23	
Has Referred to CHF Clinic	6	100%	15	65%
Comfortable or Very Comfortable Managing CHF Outpatient	5	83%	6	26%
Comfortable or Very Comfortable Managing CHF Inpatient	6	100%	18	78%
Unfamiliar with AHA/ACC Guidelines	0	0%	3	13%
Understand Utility of LifeVest	6	100%	15	65%
Understand Definition of Sodium Restriction	6	100%	20	87%

Table 1. Outcomes in Curriculum Participants vs Non-Participants

Discussion

- Involving residents in a multidisciplinary CHF curriculum provided them increased comfort in CHF GDMT and was associated with improved baseline knowledge of GDMT and the number of referrals sent to the CHF clinic.
- One confounding factor is that the residents who participated in the curriculum were either in their second or third year of residency and may have a better baseline understanding of GDMT and the utility of CHF clinics.
- First year residents were less comfortable managing CHF in any setting and less aware of the CHF clinic but those who engaged in the curriculum suggested the curriculum would have the most value for new residents.
- Future initiatives may include building the curriculum into the intern-year or working on a process to increase referral rates to the CHF clinic.

Public Health Implications

- Heart disease is the leading cause of death in Michigan. Better cardiac care includes appropriate and evidence-based management of CHF to prevent death and costly hospital admissions.
- Partnering with multidisciplinary CHF clinics can help train physicians in the skills needed to best care for these patients.

References

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