Magnolia Regional Closes Medication Adherence Gaps for Patients With Congestive Heart Failure

MedHx PRM

Prescription Fill Data Empowers Nurse Navigators to Prioritize Patients for Intervention

An Initiative to Improve Outcomes for Patients With Congestive Heart Failure

For patients with congestive heart failure (CHF), it can be difficult to stick with complex medication regimens over the long term. In fact, about 50% of patients with heart failure don't adequately adhere to their medications as prescribed despite the therapeutic benefits.[1] Unfortunately, low adherence to medications adversely influences clinical outcomes and results in worse heart failure, poor physical function, and greater risk for hospitalizations and mortality.[2]

In 2022, the American Heart Association updated treatment guidelines for CHF after evidence suggested impressive cardio-protective effects of drugs called sodium-glucose cotransporter-2 (SGLT2) inhibitors. As a result, the guideline-directed medical therapy (GDMT) standards were changed slightly to add these medications (see sidebar).[3]

Nurse Navigator Program Reduces Prescription Abandonment

With novel medical therapies showing strong potential to improve quality of life and outcomes for CHF patients, it's imperative for health systems to promote medication adherence among this patient population.

Corinth, MS | 200 beds | EHR: MEDITECH

About Magnolia Regional Health Center

This acute care community hospital provides care to patients in Alcorn County and five surrounding counties in northeast Mississippi and three counties in southern Tennessee. The hospital earned the Press Ganey Guardian of Excellence Award and has been recognized four times as one of Healthcare's Most Wired hospitals. Magnolia Regional Health Center is fully accredited by The Joint Commission and has been serving the community since 1965.

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Magnolia Regional Health Center developed a Nurse Navigator program that gives patients and their families counseling at discharge and between clinic visits to help them cope with this complex, long-term illness. One key to the program's success is efficient access to clinically actionable medication history data.

Typically, gathering up-to-date medication history for patients between visits involves making phone calls to patients, providers, caregivers, family members, and pharmacies. In the worst-case scenario, this process can take hours for a single patient. Magnolia Regional partnered with DrFirst for access to clinically actionable medication history for CHF patients in near-real time via a user interface that measures gaps in adherence at the population level. Here's how it works:

Step 1: Identify Patients During Hospitalization

First, the attending physician confirms the patient's diagnosis of heart failure with reduced ejection fraction (HFrEF). Next, to ensure the patient is eligible, the Nurse Navigator completes the following tasks:

- Prints medication list and reviews GDMT
- Introduces patient to the Nurse Navigator program
- Performs medication review
- Discusses barriers to compliance, reviews existing follow-up appointments, and verifies contact information
- Documents program enrollment, contact information, current GDMT status, providers, follow-ups, barriers to compliance, and additional notes as needed

Step 2: Phone Call 72 Hours Post-Discharge

Three days after the patient has been discharged, a nurse calls to follow up and perform the following checks:

- Reviews initial visit documentation
- Refreshes medication history data in DrFirst's MedHx PRM℠ population health management solution and performs medication review
- Schedules the next follow-up appointment
- Documents if the patient cannot be reached, that any GDMT gaps are addressed, the action taken with physician, and additional plan of care

Step 3: Follow Up 30 to 60 Days Post-Discharge

One to two months after discharge, a nurse contacts the patient to review compliance with their medication regimen and assess outcomes. The nurse will make three attempts to contact the patient.

- Refreshes medication history data in the population health management solution and assesses medication adherence to GDMT between patient visits
- Documents ad hoc care navigation note

Initial Results

Based on seven months of data with 361 patients enrolled in the program, early results indicate that prescription fill rates have increased across all four GDMT medication pillars (see table). The most impressive finding was the number of patients with new active prescriptions for SGLT2 inhibitors, as well as the fill rates for those medications. Though prescribing rates overall decreased for beta-blockers and drugs that target the renin-angiotensin-aldosterone system, fill rates still increased overall in these GDMT categories.

The guideline for inclusion of SGLT2s for the primary treatment of CHF is relatively new from 2022.[3] Typically, after a new guideline is published for primary treatment, it takes 17 years to become common practice. These early results indicate that Nurse Navigator interventions can significantly speed the rate to GDMT compliance.[4-6]

"From my experience as a Nurse Navigator, I know patients want to improve their health and well-being, but they don't understand why medication compliance is so vital to their health," said Brooke Brown, R.N., Nurse Navigator at Magnolia Regional Health Center. "The Nurse Navigator program, in partnership with DrFirst, has been a great strategy for connecting with this patient population to help them understand the 'why' behind what we do. I am thankful to have been a part of this journey so I can see the astounding difference it is making in our community."

Next Steps

Early results of the Nurse Navigator program indicate to clinicians and leadership that the program is successful in ensuring more CHF patients are filling critical medications more regularly. The program will continue to grow by adding measurements of the effectiveness of specific interventions on medication adherence and readmission rates. When the study concludes at six months, the team will submit the results to a peer-reviewed journal.

Patients Available to Intervention

	Prescriptions	Fills
BBs	25.80% > 21.30% 17.44% decrease	21.90% > 29.50% 34.70% increase
ARNIs/ACEi/ARBs	20.60% > 20.30% 01.46% decrease	15.80% > 27.10% 71.52% increase
MRAs	11.00% > 14.20% 29.09% increase	8.60% > 16.80% 95.35% increase
SGLT2i	10.00% > 12.60% 26.00% increase	7.20% > 15.10% 109.72% increase

4 Pillars of Guideline-Directed Medical Therapy for CHF Patients

To reduce mortality and morbidity for patients with heart failure with reduced ejection fraction (HFrEF), GDMT has been updated to include the following key medication classes:

- Beta blockers
- Renin-angiotensin-aldosterone system (RAAS) inhibitors:
  - Angiotensin receptor blockers (ARBs)/angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor/neprilysin inhibitors (ARNi)
- Mineralocorticoid receptor antagonist (MRA)
- Sodium-glucose cotransporter-2 (SGLT2) inhibitors

"Our local efforts to better manage the CHF population involved developing a Nurse Navigator program that sought to make our care more patient-centered and more equitable. Through our partnership with DrFirst, we've been able to go beyond that in ways that I never imagined possible at the outset. I believe that because of this collaboration, **our care for this population is safer, more equitable, more effective, more efficient—**really all the ways that we measure quality in healthcare."

—Ben Long, M.D.
Director of Hospital Medicine
Magnolia Regional Health Center

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