



Client:

Charleston Area Medical Center
www.camc.org

Location:

Charleston, WV

Size:

- 956 Licensed beds
- 900 Physicians
- 7,500 Employees

Customer since:

2015

TeleHealth Solutions:

- Tigr Interactive Patient Education System
- TeleHealth 360° Service

The Client:

Charleston Area Medical Center (CAMC) is a nonprofit, 908-bed, regional referral and academic medical center with more than 7,500 employees. CAMC is home to one of the largest heart programs in the United States; the only kidney transplant center in West Virginia; the highest level trauma center; the state's only freestanding children's hospital and is a 2015 recipient of the Malcolm Baldrige National Quality Award.



Charleston Area Medical Center

Charleston Area Medical Center Improves Performance in Congestive Heart Failure (CHF) Readmissions with Tigr

The Challenge

West Virginia currently has the highest prevalence of cardiovascular disease in the nation (13.7%)¹, with heart disease reported as the #1 cause of death among adults.² While Congestive Heart Failure (CHF) has a stronghold as the #1 principal diagnosis for all-cause, 30-day readmissions, West Virginia has been historically impacted by a disproportionately higher rate of CHF readmissions than the national rate.

Charleston Area Medical Center (CAMC), a non-profit four-hospital system in central West Virginia, sees the faces behind those numbers every day within their patient population. In the first quarter of 2015, CAMC's Multidisciplinary Patient and Family Education Council began the implementation of a solution focused on reversing this trend, using education and engagement to improve outcomes.

The Solution

CAMC had already launched an aggressive approach for improving system-wide performance in achieving readmissions reductions for CHF and other chronic diseases, for which a number of initiatives were either in place or were being incorporated. To date, some of the key strategies have included:

- **A detailed clinical assessment at admission and an assignment of a severity score**
- **Nurse navigators who coordinate care, provide education and referrals, and ensure smooth transitions after discharge**
- **Referrals to Pulmonary Rehab, Cardiac Rehab, and psychological support as appropriate**
- **The Meds to Beds program, which provides bedside delivery of a 30-day supply of prescription medications filled in the CAMC pharmacy and counseling by a pharmacist prior to discharge**
- **Escalation to a skilled nursing facility for patients who are too sick to be discharged to home**
- **For patients who are discharged to home, a follow up appointment is made with their primary care physician within 7 days and home health services referrals are made as appropriate**

Adding Tigr to the Equation

In March of 2015, CAMC rolled out an enterprise deployment of TeleHealth Services' Tigr interactive patient engagement solution across their four hospital campuses to help standardize patient education and increase patient engagement. Dr. Don Lilly, Associate Chief Medical Officer at CAMC, was one of the early champions of the system. As a cardiologist who has treated patients with CHF throughout his career, he recognized the importance of patient education in helping heart failure patients self-manage their disease. Dr. Lilly became a strong proponent of video-based education to meet the need. "Many of our patients have literacy issues, so reading is not the best way for them to learn about their disease," explains Dr. Lilly.

Demographics support this statement, as West Virginia ranks 2nd highest nationally in the prevalence of general health of adults (25.7%) who consider their health to be either ‘fair’ or ‘poor.’³ Most people in this category are adults 65 and older, with less than a high school education.⁴ “Video is an effective way for patients to learn about their disease process and how they can manage it,” explains Dr. Lilly. “They watch TV at home on a daily basis, so they are already comfortable with taking in information this way.”

Dr. Lilly worked with Beverly Thornton, RN, Education Director of the CAMC Institute for Health Education and Research, and nurse navigators, Natalie Osborne, LPN, and Angelia Fugate, LPN, to develop a standard approach for educating heart failure patients. Together they developed a CHF “video prescription,” or CHF education plan detailing a list of programs and assessments that patients are required to complete prior to discharge. Ms. Osborne and Ms. Fugate engaged front-line nurses to deploy the “pilot program” and often assist patients at the bedside with accessing their education plans, discussing content, and doing teach-back education.



From left to right: Education Division Director Beverly Thornton, Nurse Navigators Natalie Osborne and Angelia Fugate, and Dr. Don Lilly, Associate CMO.

Select videos are accompanied by comprehension assessments deployed automatically by the Tigr system post-education. Reports with assessment results are automatically sent to Ms. Osborne and Ms. Fugate, who follow up with patients needing remediation and additional teach-back at the bedside. “The videos help our patients understand their heart failure and what they need to do to take care of themselves,” explains Ms. Osborne.

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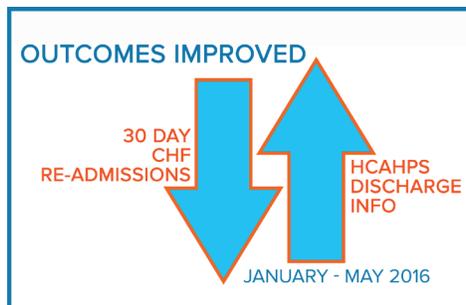
Dr. Don Lilly
Associate Chief Medical Officer

“Many patients share that they’ve heard all the same things from their doctors for years, but they didn’t understand the advice or understand why it was important until now.”

Compliance with the video prescriptions is also tracked with reports, which are sent by the Tigr system to the navigators’ email addresses. Patients are also asked to complete quizzes on their TVs following select videos. “When interactivity follows learning, patients retain more information,” says Ms. Thornton.

The Results

After the inaugural year of Tigr (March 2015 – March 2016), CAMC’s utilization reports at General and Memorial Hospitals (which hold the large majority of CHF hospitalizations within the system) reflected that more than 25% of all viewing activity was titles in the CHF education plan. As viewing of heart failure videos over the year steadily increased, CAMC likewise observed a decline in their heart failure readmission rate. Historically, 30-day readmissions for patients with a primary diagnosis of CHF had been on the rise from 2013 through 2015, but January – May 2016 reflected a significant drop in the rate.



In addition, a change to HCAHPS scores for Question 19 (addressing discharge information) was observed. A sampling of survey scores revealed that patients on the Critical Decisions Unit at Memorial Hospital who were provided the CHF education plan scored Question 19 at 90% (10% higher) compared to a sampling of patients from the same unit during the same time frame, who did not receive the CHF education plan.

“Seeing this positive trend in scores has led other units and departments to look at the Tigr system as a way to improve delivery of education and better prepare patients for taking care of themselves after discharge. The video prescription “pilot project” workflow from the Critical Decisions Unit has been adopted in other units across the health system,” states Ms. Thornton.

As Ms. Thornton, Dr. Lilly, and the nurse navigators work together to expand the use of their Tigr interactive system to support improvements in patient outcomes throughout CAMC, they recognize that patient satisfaction is just as valuable a measure of success. “Patients appreciate that Tigr is simple to use and the education is easy to follow,” says Ms. Osborne. “Some ask if they can watch the videos again when their families come to visit. Others ask for a copy of the entire listing of videos so they can find more programs to view on their own. When we talk about getting patients more engaged in their care, Tigr continues to be our partner to make that happen. We are definitely big fans of the system.”

Sources:

- 1: Division of Health Promotion and Chronic Disease, Data and Reports Fast Facts, © 2016. West Virginia Department of Health & Human Resources, Bureau of Public Health; based on data from West Virginia Health Statistics Center (WVHSC) and the Centers for Disease Control and Prevention (CDC).
- 2: American Heart Association/American Stroke Association, West Virginia Fact Sheet. Based on total number of deaths in 2010. Centers for Disease Control and Prevention. WISQARS Leading Cause of Death Reports, 2010.
- 3 & 4: Division of Health Promotion and Chronic Disease, Data and Reports Fast Facts, © 2016. West Virginia Department of Health & Human Resources, Bureau of Public Health; based on data from West Virginia Health Statistics Center (WVHSC) and the Centers for Disease Control and Prevention (CDC).