UCSF Department of Medicine
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HIGH VALUE CARE

Creating High Value Care: Reducing Heart Failure Readmissions

Health care has undergone a profound change in recent years, shifting from a "fee for service" model – where doctors got paid for providing visits and ordering tests – to a "pay for performance" model, where payment is tied to meeting certain target outcomes.

This brave new world has huge implications for patients, doctors, and health systems – and the ZSFG Department of Medicine is using the challenge as an opportunity to redesign care delivery to increase value.

"One definition of value is providing better patient care to achieve better population outcomes, while containing costs," said Reena Gupta, MD, Chief of Value-Based Care for the San Francisco Health Network and Associate Professor in the ZSFG Division of General Internal Medicine.

Dr. Reena Gupta

She oversees the San Francisco Health Network's participation in the Public Hospital Redesign and Incentives in Medi-Cal (PRIME) program, a statewide initiative for safety net hospitals which supports system redesign. For example, by reducing 30-day readmissions – when patients return to the hospital less than a month after their last stay – participating institutions will receive incentive funds through the program.

Heart failure is one of the leading causes of preventable 30-day readmissions, and ZSFG has developed a Heart Failure Readmissions Program, co-led by Rachel Stern, MD, Assistant Professor in the ZSFG Divisions of General Internal Medicine and Hospital Medicine, and Lucas Zier, MD, Assistant Professor in the ZSFG Division of Cardiology.

"Increasing value really requires investment in building capacity in our leaders to drive performance improvement, and the data analytics to support improvement work," said Dr. Gupta.

Understanding the Problem

Reducing heart failure readmissions is a complex challenge. Nationally, hospitals have had difficulty lowering readmission rates, and some hospitals that decreased heart failure readmissions actually experienced increased patient mortality.

"We made a conscious decision to focus on things that we knew would improve care, quality of life, and longevity, as opposed to just things that would reduce readmissions," said Dr. Stern. She noted that some hospitals try to improve their numbers by declining to readmit patients, or discharging them within 48 hours, before hospitalizations officially count as readmissions.

Dr. Stern and Dr. Zier began by using Lean and A3 thinking to evaluate the problem, and conducted key informant interviews within the San Francisco Health Network. Surprisingly, they discovered much more variability in the care of hospitalized heart failure patients than they expected, as well as a common misconception that homelessness, substance abuse and mental health issues were the main reasons for heart failure readmissions.

"Yes, our patients are complex and experience a lot of adverse social determinants of health, but when we compared ourselves to other California safety net hospitals, including Los Angeles County, other places were doing a better job than we were," said Dr. Stern.

Better Inpatient Care and Discharge Planning

To address this, the team developed the ZSFG Heart Failure Discharge Planning Tool, inspired by Atul Gawande's book, The Checklist Manifesto. "It's essentially a checklist for criteria that all patients need to meet prior to discharge, and is derived from best practices laid out by the American Heart Association and the American College of Cardiology guidelines," said Dr. Zier.

Dr. Lucas Zier

Internal medicine resident Paul Marano, MD, designed an easy-to-read flow chart outlining care that heart failure patients should receive. This includes removing all excess water from patients' bodies, getting them on appropriate medicines, providing 30-day prescriptions, and scheduling follow-up appointments with both their cardiologist and primary care physician within seven days of discharge – all before the patient leaves the hospital. "This has been the standardized process by which we discharge patients from the hospital for about four months, and we're currently evaluating its effects," said Dr. Zier.

To support the transition from hospital to home, ZSFG conducts multidisciplinary rounds, which bring together a social worker, nurse case manager, transitional care nurse, and the medical team

to determine what services patients need after discharge.

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In mid-2018, Dr. Stern and Dr. Zier created the Multidisciplinary Heart Team, which includes experts from addiction medicine, palliative care, cardiology, primary care, and case management. The team meets monthly, discussing the two patients who have been readmitted most frequently during the past 30 days. These patients are part of a small group which drives a large percentage of the readmissions, and often are hospitalized six or more times a month.

"If we get people from multiple disciplines together to think about a problem, people look at it from different angles," said Dr. Zier. "We can also use the team as an incubator to come up with systems solutions." For example, one patient kept getting readmitted because his heart medication would get lost or stolen. Dr. Zier and an internal medicine resident innovatively proposed administering his medications in the methadone clinic, which the patient was already visiting daily. "The methadone clinic said, 'We've never done that before, but we actually do it for patients who need HIV medicine all the time,'" said Dr. Stern. "It worked really well."

Dr. Rachel Stern

"The creation of the Heart Team, which is focused on meeting the holistic needs of our most vulnerable patients with heart failure, is an inspiring addition to our care," said Jeff Critchfield, MD, Chief Medical Experience Officer, Medical Director of Risk Management, and Professor in the ZSFG Division of Hospital Medicine. "The group, by intent, works to support the care of the patient in the community so they don't need to be in the hospital."

Ambulatory Care After a Hospital Stay

ZSFG has also improved outpatient care. "If you look in the literature, the number one thing that appears to both improve heart failure care and reduce heart failure readmissions is access to specialized heart failure care in a well-run, robust heart failure clinic," said Dr. Zier.

In November 2018, ZSFG recruited heart failure specialist Jonathan Davis, MD, Assistant Professor in the ZSFG Division of Cardiology. Through his recruitment and a clinic reorganization, the Heart Failure Program increased heart failure appointment slots from about 20 to 57 per week.

It is critical that recently discharged heart failure patients see a cardiologist within seven days to address any problems before they become emergencies. Yet until recently, the third next available appointment was two to three weeks out. By increasing heart failure appointment slots and other strategies, the team reduced wait time to three to five days. Dr. Davis's expertise in advanced heart failure therapies such as mechanical circulatory support and heart transplant will also make it easier for patients to access these life-saving treatments if needed.

"I am passionate about all things related to heart failure, from sitting at a patient's bedside to improving the entire system surrounding that patient's care," said Dr. Davis. "The team at ZSFG is composed of a dedicated and caring multidisciplinary group of individuals who are meticulously evaluating and rethinking every aspect of how we approach reducing heart failure readmissions. It is incredibly exciting to have this unique opportunity and privilege to join the team and work collectively to improve the care of our patients."

'It Takes a Village'

Heart failure is a chronic disease, and primary care providers play a critical role in helping to keep patients as healthy as possible. Drs. Stern and Zier recently presented a continuing medical education seminar for primary care colleagues in the San Francisco Health Network about current state-of-the-art care for heart failure. "Our primary care doctors have done a phenomenal job, but it's important to educate people about current contemporary practice," said Dr. Zier. "There have been tremendous advances in the medicines that are available for heart failure even in the last couple of years, so we're increasingly putting patients on these medicines that should make them feel better and live longer."

SPOTLIGHT

New UCSF National Clinical Scholars Program: Margot Kushel, MD, Professor in the Division of General Internal Medicine, along with Susan Chapman, RN PhD, Professor of Nursing and Michael Steinman, MD, Professor and VA geriatrican, will lead the UCSF site of the National Clinical Scholars Program to train the next generation of health and healthcare change agents, prepared to work in diverse settings to achieve our goals of a healthier and more equitable world. This is a 2 year fellowship where fellows will train in a closely-knit cohort, receive mentorship from faculty from different disciplines, and build their skills in community partnered research, implementation and dissemination sciences, policy, and health system transformation. The application process will start in late spring 2019 for fellows matriculating in July 2020.

Drs. Zier and Stern are also working closely with data analysts to sift through the electronic medical record and have used that information to tell primary care doctors which of their patients have heart failure, and which may have such advanced disease that they could benefit from palliative care, either to manage their symptoms or to help with end-of-life care.

Dr. Jonathan Davis

"It takes a village to do this work," said Dr. Zier. "There has been a tremendous amount of people who have supported this work and helped us with ideas, implementation and data analytics. It's really a pleasure to work in an environment where people are so willing to collaborate, be part of a multidisciplinary team, and address problems that aren't clearly in their purview, because they want to improve patient care."

"Our greatest asset as a network and delivery system are our people," said Dr. Gupta. "Our leaders are committed to the mission, think beyond traditional models, and engage with our community of vulnerable populations to drive improvement work and change."

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