Communications and Publications Division (CPD) of the IFCC
Editor: Katherina Psarra, MSc, PhD
IFCC Office, Via C. Farini, 81
20159 Milano, Italy
E-mail: enews@ifcc.org

International Federation of Clinical Chemistry and Laboratory Medicine

Nº – September 2022

UNIVANTS™
OF HEALTHCARE EXCELLENCE

Improving heart failure care using electronic medical record analytics to personalize care: a leading best practice from Prisma Health

Heart failure is a life-threatening syndrome that is complex, with many causes and sequelae. The disease is associated with a lower quality of life due to the poor functional capacity of patients. It is also associated with high care costs and, sadly, high mortality. Although the incidence of the disease seems to have stabilized worldwide, its prevalence is increasing due to an aging global population and improvements in pharmaco-therapies for various heart diseases. South Carolina in the United States is not immune from the quality of life and economic burdens of heart failure. Heart disease is the second leading cause of death, with large numbers of hospitalizations and associated high health care costs experienced by the people and payors of the state.

Despite the challenges and costs associated with the care of heart failure patients, effective treatments exist. Literature supports that early entry into intensive, specialized care for heart failure can improve patients' quality of life and lower the disease's resource and economic burden on health systems and payors. Aware of the global and local burden associated with heart failure, a multidisciplinary team of health care providers unified for something greater: Improved heart failure care. This team included Beth Wehliz (Administrative Director of Laboratory), Jason Guichard (Medical Director, Advanced Heart Failure, Pulmonary Hypertension and Mechanical Circulatory Support Program), Stephanie Flippin (Information Technology Epic Analyst), Beverly Jameson Prisma Health team (Manager of Nursing Cardiac Telemetry) and Sandi Stoudenmire (Director of Cardiovascular Services). The team focused on the primary question: "How to identify heart failure patients earlier in their care, improve their access to and utilization of limited specialty resources, and reduce the cost of care?"


Prisma Health team

Their solution to this problem was the development of a heart failure patient identification and associated workflow program. This program utilizes the inherent data collection, archiving, and reporting capabilities of their electronic medical record (EMR) system. The data

Article continued on next page

archived in the EMR is analyzed using novel algorithms to generate a risk score for patients that indicates either rising risk for or advanced risk heart failure patients. The program organizes the heart failure patient population, enables robust risk stratification for the patients in the population, and deploys real-time, point of care decision support for providers. This decision support enables improved care coordination and helps ensure heart failure patients can see the right care provider at the right time.

The care initiative produced remarkable improvements for stakeholders in heart failure patient care in the Prisma Health system. These stakeholders include patients, clinicians, health systems, and payors. The patient stakeholders' benefits include an improvement in patient wellness indicated by a 12% improvement in overall mortality of heart failure patients in the first year of the initiative. The results are even more impressive for highrisk patients, with the post-initiative participants' mortality rate for this specific patient group at approximately one-half that of patients not triaged in the program. The objective risk scoring system also improved healthcare equity by enabling better connection to specialized care for at-risk, underserved patients. The improvement is clear with a 14% increase in clinical visits by Black/African American patients post-implementation. The number of high-risk patients receiving specialized care from Advanced Heart Failure specialists increased by 48%, year over year. The initiative also enabled improved connection to non-heart failure-specific care, such as palliative or hospice care, when appropriate, as indicated by a 40% increase in referrals to those care pathways. For clinicians, the program increased clinical satisfaction, as the time to follow-up was reduced by almost one full day, with an even more impressive increase (a relative 116% increase) in the frequency of follow-up care for the highest risk patients. The timely connection to appropriate care and improved follow-through with post-discharge care is very satisfying for clinicians, as they can better provide the services that improve and save their patients' lives. The health systems stakeholders realized an impressive 67% increase in their overall patient volume in the heart failure clinic, increasing their revenue by 14.8% yearly. Payors also received a benefit from the care initiative. Heart failure patients in the care program experienced a 59% reduction in emergency and urgent care visits, resulting in significantly lower care costs for payors.

In recognition of the success enjoyed by their unified multidisciplinary team's innovative approach to addressing the challenges of heart failure care management, the team at Prisma Health received the prestigious honor as a top 3 winner in association with the 2021 UNIVANTS of Healthcare Excellence Awards program. For more details on this program and/or this best practice, visit www.UnivantsHCE.com.

THREE KEY TAKEAWAYS:

- EMR analytic algorithms can produce an easy-to-understand risk score for individual patients, enabling timely and appropriate connection to specialty care.
- Appropriate and timely specialized heart failure care can reduce acute emergency medical care needs for heart failure patients, improving the patient's quality of life and scarce medical resource availability.
- Early entry into intensive and specialized heart failure care can reduce the early mortality of heart failure patients.

Banner Health and Laboratory Sciences of Arizona

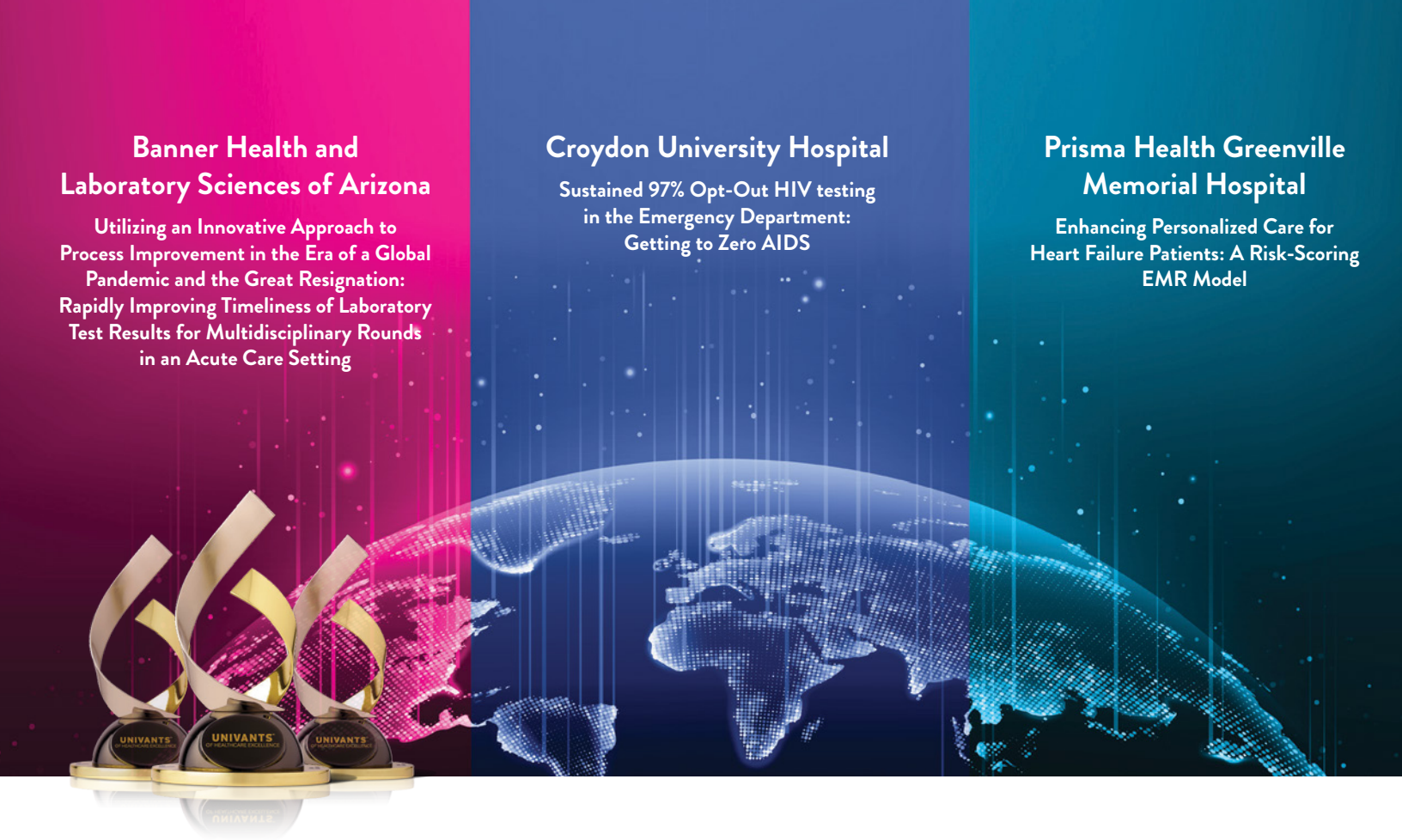
Utilizing an Innovative Approach to Process Improvement in the Era of a Global Pandemic and the Great Resignation: Rapidly Improving Timeliness of Laboratory Test Results for Multidisciplinary Rounds in an Acute Care Setting

Croydon University Hospital

Sustained 97% Opt-Out HIV testing in the Emergency Department: Getting to Zero AIDS

Prisma Health Greenville Memorial Hospital

Enhancing Personalized Care for Heart Failure Patients: A Risk-Scoring EMR Model



CONGRATULATIONS TO THE 2021 WINNERS

TOP TEAMS AROUND THE WORLD
ARE ACHIEVING
HEALTHCARE EXCELLENCE

Learn about these success stories **at UnivantsHCE.com**

UNIVANTS™
OF HEALTHCARE EXCELLENCE

RECOGNITION OF DISTINCTION

Medcan Health Management Inc.

UHCW NHS Trust and Warwick Medical School

King Abdulaziz Medical City – Jeddah

RECOGNITION OF ACHIEVEMENT

Hampshire Hospitals NHS Foundation Trust

Yantai Yuhuangding Hospital

UOC Medicina Trasfusionale AOOR Villa Sofia-Cervello

University Hospital Centre Zagreb & Polyclinic Avitum

King Hussein Cancer Foundation and Center

Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute

Zulekha Hospital Dubai

Abbott

IN PARTNERSHIP WITH

ifcc International Federation of Clinical Chemistry and Laboratory Medicine · AACC · EHMA European Health Management Association · Modern Healthcare · HIMSS · NAHQ National Association for Healthcare Quality · IHE INSTITUTE OF HEALTH ECONOMICS