

The future of cardiac care: Partnerships, data and best practices

Emergency departments nationwide continue to struggle with overwhelming patient volumes and staffing shortages. Although boarding times have shown improvement, the issue remains prevalent, often amplified by inadequate availability of cardiac telemetry systems on inpatient units.

Innovative patient monitoring technologies and advanced data analytics are increasingly instrumental and may help alleviate these capacity bottlenecks. By accurately matching patients to optimal care environments, hospitals and health systems can enhance operational efficiency and patient outcomes.

At Becker's 12th Annual CEO + CFO Roundtable, a session sponsored by Philips featured Jon Kamerman, National Sales Leader for Philips Hospital to Home Solutions, and Jacob Turmell, DNP, Chief Clinical Officer for Philips Hospital Patient Monitoring. They explored how leveraging a data-driven approach in cardiac care can establish new pathways and strategically address healthcare capacity challenges.



Strategies to help reduce ED bottlenecks

Before the COVID-19 pandemic, 90 percent of U.S. emergency departments (EDs) routinely reported overcrowding, a challenge that persists and has worsened for some hospitals in the post-pandemic era.

"I worked with two hospitals recently that reported boarding over 30 to 40 patients per day in their ED while they waited for inpatient beds," Dr. Turmell said.

Overcrowding can erode staff satisfaction, leading to burnout among ED personnel. It also negatively impacts patient safety and satisfaction. As patients wait for inpatient beds, many hospitals resort to boarding individuals in hallways, nursing stations, or cafeterias, which compromises patient safety and significantly affects the patient experience.

"At one hospital, the bottleneck in the ED is due to inadequate availability of cardiac telemetry on the inpatient side," Dr. Turmell said. "Increased crowding in inpatient areas strains the entire hospital, including cardiac telemetry in inpatient and step-down areas."

To address ED overcrowding caused by limited access to inpatient telemetry beds, hospitals can adopt a robust discharge policy based on the American Heart Association and American College of Cardiology guidelines for safely discontinuing cardiac telemetry.

"A good first step is reviewing data to determine which patients are ready to come off monitoring," Dr. Turmell said. "The goal is to safely discharge individuals. If patients haven't experienced any arrhythmias in the last 48 to 72 hours, they are likely ready to come off the monitor based on these guidelines."

The ability to accurately interpret telemetry and make informed decisions about discontinuing monitoring is essential. Philips Telemetry Insights Manager is an analytics solution providing system-wide telemetry surveillance and visual insights to assist teams in managing telemetry patients and utilization.

Its customizable dashboard identifies patients who have been on a monitor for 48 or 72 hours, per institutional policies, and those who have been arrhythmia-free, enabling the removal of patients from telemetry and alleviating ED congestion.

Technology and data help address ED capacity issues

Philips IntelliSpace ECG and Enterprise Insights utilizes the same databases for both hospital ECG data and home telemetry services, such as the Philips Mobile Cardiac Telemetry - MCOT¹, and the Philips Extended Holter - ePatch monitoring services².

"This presents hospitals with a new opportunity to innovate significantly in care delivery," Mr. Kamerman said. "If a cohort of patients in the hospital do not require critical monitoring, they can be discharged early, reducing length of stay, freeing up beds, and increasing throughput in procedural and step-down units."



Telemetry Insights Manager analytics assist teams in ensuring patients with specific arrhythmias receive hospital-based treatment while discharging those suitable for home monitoring. These decisions are data-driven rather than solely reliant on policy compliance.

Access to and analysis of this data is vital for enhancing patient care through measurable insights. Many hospitals deploy teams to extract data from systems, but the challenge lies in leveraging this information effectively.

"If organizations align an analytics environment with deep clinical and operational EMR data, they can empower teams to achieve new objectives," Mr. Kamerman said.

"Data can also be used to address broader issues related to staffing, culture, procedures, and policies."

When traditional hospital equipment—such as Philips IntelliVue patient monitors, cardiographs, stress systems, cath labs, and echocardiography systems feeds data into a unified analytics environment, hospitals can evaluate staff workloads and identify areas where employee training could alleviate capacity constraints.

This technology impacts not only efficiency and workflows but also the quality of care. "We can pose questions, such as which technician groups need training for 12-lead ECGs, to ensure the right patients are directed to telemetry," Mr. Kamerman said.

Partnerships solve strategic problems through innovation

A comprehensive partnership extending beyond just providing devices is essential for addressing today's ED capacity challenges. Philips experts bring extensive institutional knowledge and are prepared to collaborate with hospitals and health systems to tackle strategic challenges.

"We have partnered with thousands of hospitals and can share best practices for leveraging technology to address higher-level concerns such as capacity and staffing," Mr. Kamerman said. "Invite us to join your cross-functional teams so we can innovate together and tackle larger challenges."

Philips assists organizations in consolidating their existing assets and data to yield clinical and operational benefits. While devices are pivotal in care, transforming workflows and the significance of data cannot be underestimated. Data possesses the power to reshape how hospitals and health systems approach efficient and safe patient discharges.

"Leveraging your current systems, we can curate data and present it within a unified environment, enabling clinicians to make optimal care decisions swiftly and efficiently for patients," Mr. Kamerman said.

1. Philips MCOT is not indicated for inpatient telemetry.

2. Data analysis occurs at end of service for Philips Extended Holter - ePatch when device is returned and data is downloaded.