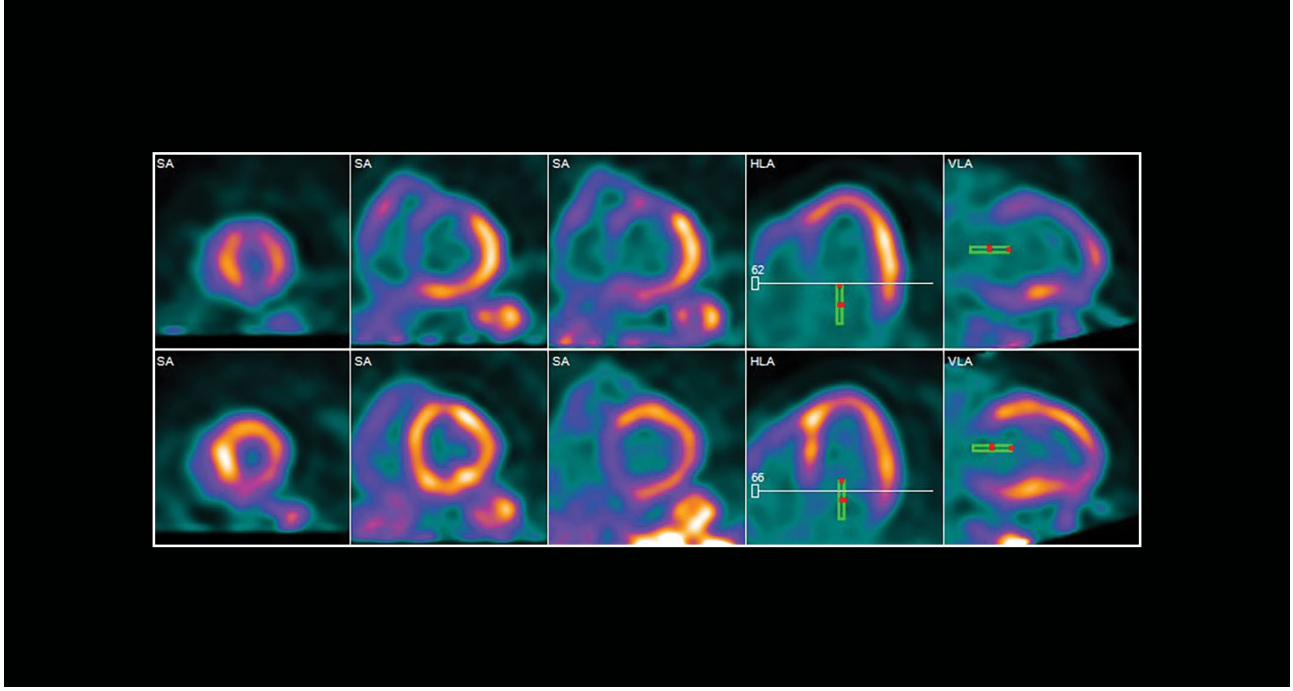


Expanding access to advanced cardiac care: The rise of PET/CT imaging

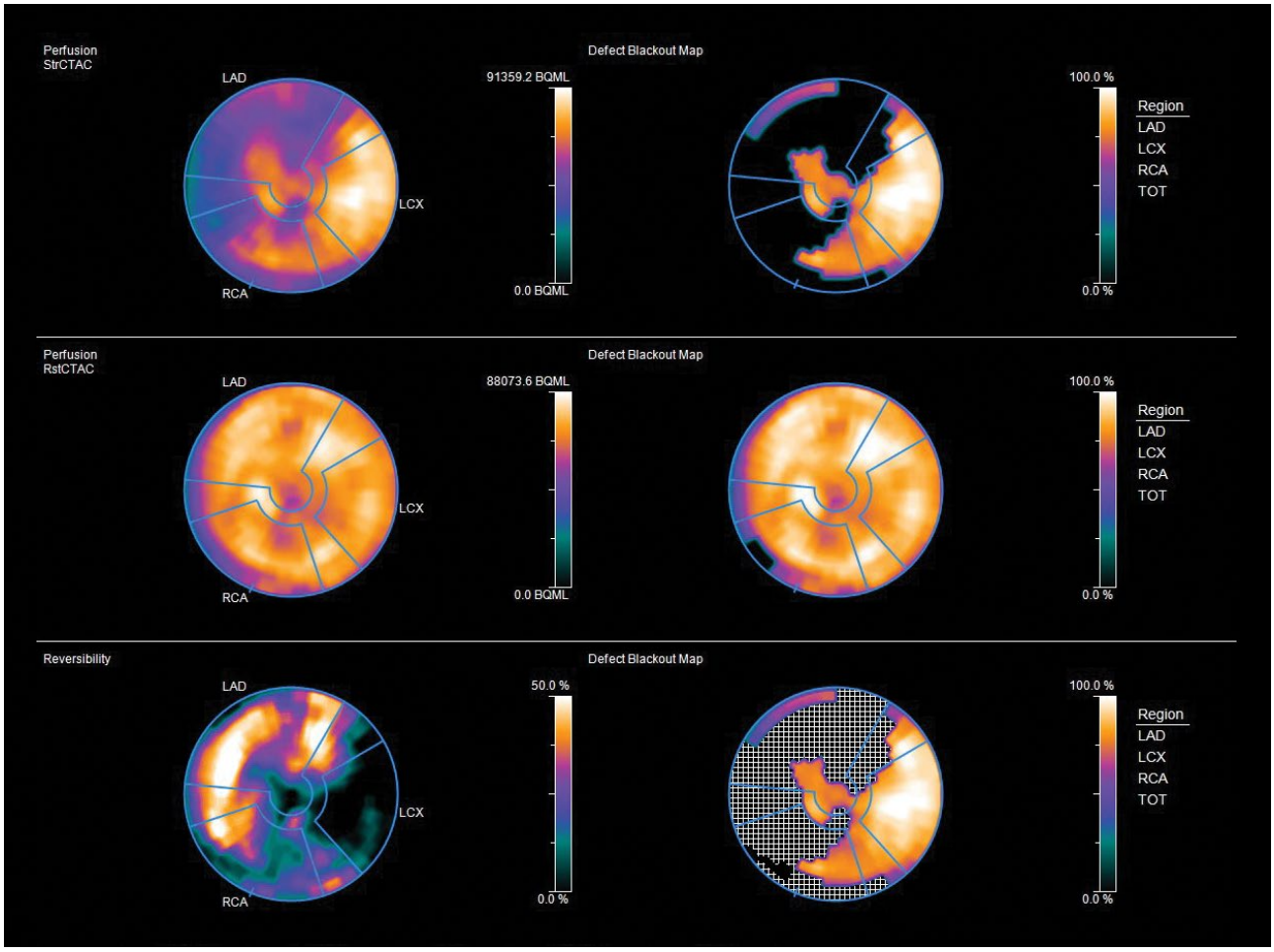
By Claudette Lew | Data courtesy of Houston Cardiovascular Associates, Texas, USA

Cardiovascular disease is the leading cause of death, representing 32% of global deaths each year.[1] As diagnostic imaging tools in cardiac care continue to advance, PET/CT has emerged as a powerful modality for myocardial perfusion imaging (MPI), offering accuracy, fast scan times, and low radiation exposure.[2] According to the American Society of Nuclear Cardiology (ASNC), cardiac PET is experiencing wider adoption; however, mainstream adoption of cardiac PET is still limited in some cases by high capital cost or accessibility to PET/CT scanners, as well as accessibility to radiotracers.

As a champion for cardiac PET/CT, CDL Nuclear Technologies (CDL) in Cranberry, Pennsylvania, USA, has made it their mission to simplify access to cardiac PET imaging throughout the United States. Through a unique, end-to-end service model, CDL provides healthcare facilities with everything from site planning and system acquisition to staffing and radiopharmaceutical supply—allowing cardiology practices and hospitals to integrate cardiac PET

"The biggest advantage of PET/CT is its unparalleled accuracy."

A. George Basu, MD, FACC, Houston Cardiovascular Associates



Polar maps of PET stress cardiac attentuation correction (AC) static, PET rest cardiac AC static, and reversibility.

without the financial burden of upfront capital investment.

Houston Cardiovascular Associates (HCVA), a leading cardiology practice in Texas, partnered with CDL to help transform their delivery of cardiac care. By leveraging the advanced imaging technology of PET/CT and with CDL's support, the practice has been able to offer precise and efficient cardiac imaging to its patient population.

A shift toward cardiac PET

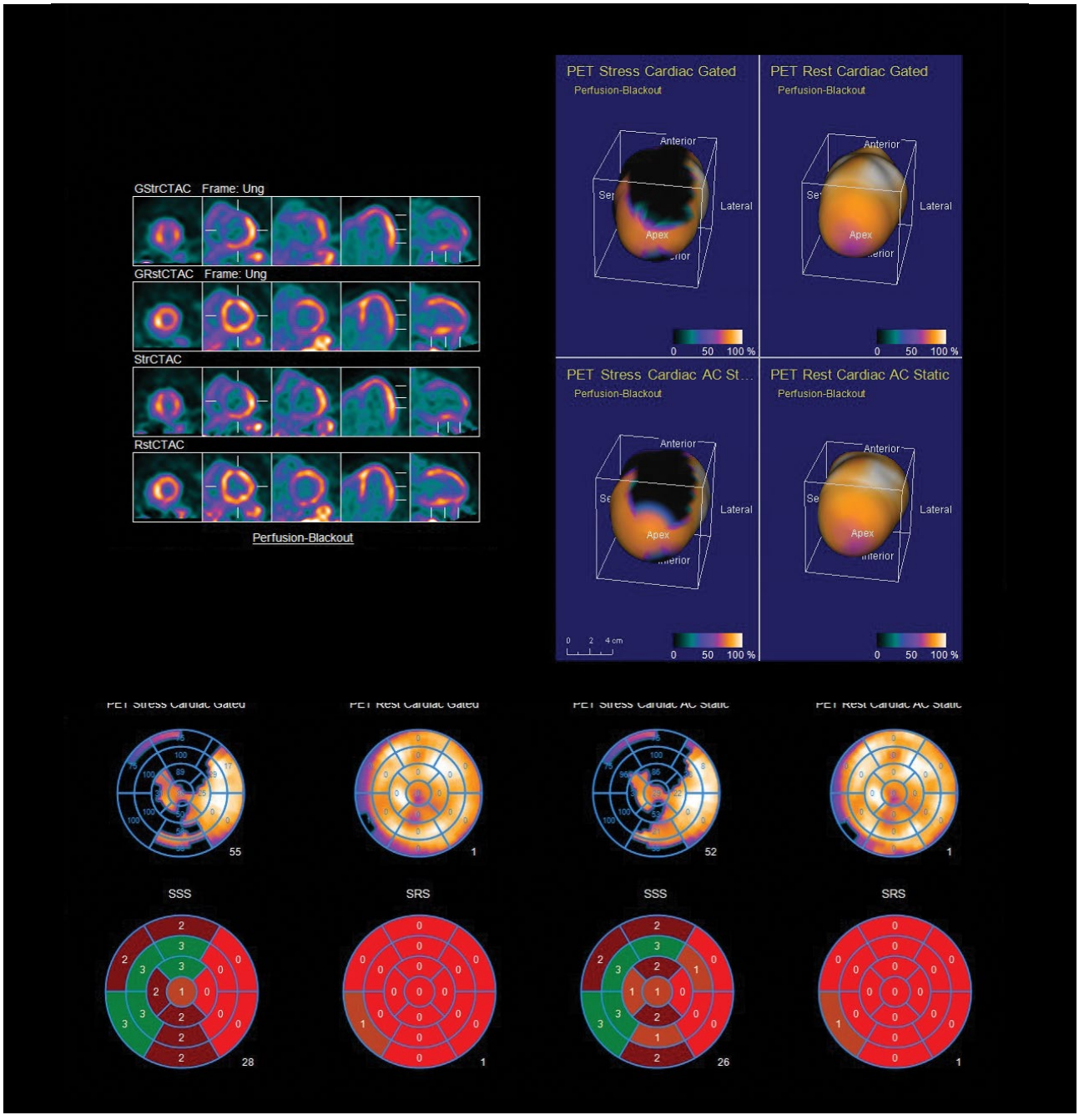
Despite its well-documented clinical advantages, adoption of cardiac PET has traditionally been limited to major academic centers, but today, the landscape is changing.

"The demand for cardiac PET is undoubtedly increasing," says Chris Baer, chief commercial officer at CDL. "Historically, it was seen as a niche modality primarily available at tertiary care centers, but now it's becoming the standard of care in both outpatient cardiology practices and health system settings."

This shift is driven by growing clinical support from nuclear medicine societies such as Society of Nuclear Medicine and Molecular Imaging (SNMMI) and ASNC, as well as increasing reimbursement coverage.[3] "While SPECT has been the gold standard for decades, there's a clear movement toward PET due to its higher diagnostic accuracy," Baer explains.

For healthcare providers looking to transition to PET, cost has been a significant barrier.[4] Cardiac PET imaging requires not only an advanced PET/CT scanner but also reliable access to radiopharmaceuticals like rubidium-82, which has a short half-life and requires an on-site or mobile generator. CDL addresses these challenges by offering a comprehensive leasing model that eliminates the need for large upfront capital investments.

"Our approach is simple: we combine the PET/CT scanner, site build-out, and system servicing into a single monthly lease," says Baer. "This removes the upfront capital investment and lowers the financial



MPI summary of PET stress cardiac gated and PET rest cardiac gated.

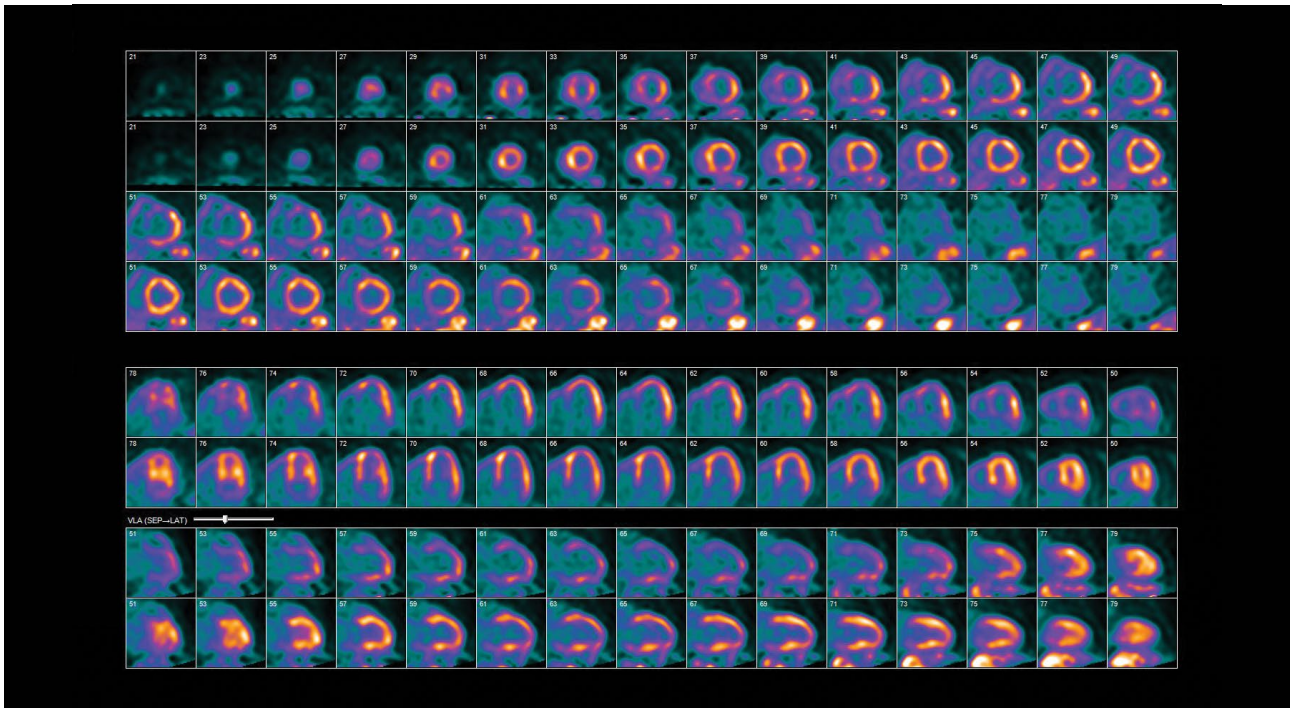
risk for providers, enabling them to quickly adopt cardiac PET as an imaging modality."

Bringing advanced imaging to more patients

HCVA recognized early on that cardiac PET could elevate the accuracy and efficiency of their diagnostic workflow, but integrating PET/CT into a private practice setting required overcoming both logistical and financial hurdles.

"Partnering with CDL made it possible for us to bring cardiac PET into our practice by removing the traditional barriers," says Dr. George Basu, interventional cardiologist and managing partner at HCVA. "We installed our first PET/CT scanner with them more than a decade ago, and since then, we've expanded to multiple PET/CT systems, allowing us to serve more patients with the highest standard of care."

With 30,000 patient visits per year, HCVA operates in one of the nation's busiest medical hubs. Biograph Horizon PET/CT plays a key role in managing this high volume while maintaining clinical



PET stress cardiac gated (top) and PET rest cardiac gated (bottom).

excellence for HCVA clinicians and the patients they serve.

"The biggest advantage of PET/CT is its unparalleled accuracy," Basu explains. "Before PET, we frequently encountered false positives, leading to unnecessary catheterizations in a higher risk patient population. Now, when we send a patient to the cardiac catheterization lab, we do so with confidence, knowing there's a true need for intervention. Cardiac PET is one of those things that has contributed to our ability to mitigate these risks and better manage total cost of care—and bring it down, frankly."

Beyond its diagnostic accuracy, PET/CT imaging offers patients a fast, safe, and comfortable experience. "Biograph Horizon provides a wide bore, which is especially important for larger patients or those with claustrophobia," Basu notes. "It also delivers high-quality images efficiently, allowing us to perform more than 30 scans per day without disruptions to our workflow."

Innovative solutions for rubidium-82 supply and mobile PET access

For practices that do not have access to an on-site rubidium-82 generator, securing a steady supply of radiopharmaceuticals for cardiac PET imaging can be a major challenge. CDL addresses this challenge by providing their patented mobile rubidium-82 delivery system that allows generators to be transported between sites.

"We have 11 distribution hubs across the country that deploy rubidium-82 generators on demand," explains Baer. "This enables practices to scale at their own pace—starting with one or two PET days per week and increasing volume as their demand grows."

CDL also offers providers the flexibility of mobile PET/CT units, which bring advanced imaging directly to outreach locations, rural hospitals, and multi-site practices. "Whether a site needs a temporary system during construction or a long-term mobile solution, we can deploy a Biograph Horizon PET/CT scanner inside a fully equipped trailer," Baer says. "This model expands access to underserved areas and facilities facing scanner capacity constraints, ensuring that more patients can benefit from advanced cardiac imaging."

Elevating cardiac care with PET/CT

According to Baer, CDL's decision to standardize on the Biograph Horizon PET/CT was driven by the system's high reliability, compact footprint, and advanced imaging capabilities. "Biograph Horizon is a true workhorse—it's air-cooled, lightweight, and easy to install in a variety of settings," he explains. "For mobile applications, its smaller footprint is a huge advantage, and in fixed-site installations, it integrates seamlessly into existing workflows."

"The speed of image acquisition and low injection dose make it the ideal system for a high-volume practice like ours," Basu confirms. "It is also incredibly reliable—downtime is

"We can deploy a Biograph Horizon PET/CT scanner inside a fully equipped trailer. This model expands access to underserved areas and ensures more patients can benefit from advanced cardiac imaging."

Chris Baer, CDL Nuclear Technologies

virtually nonexistent, which is crucial when you are scheduling PET scans weeks in advance."

Biograph Horizon's embedded AI solutions also improve operational efficiency and usability by automating quality control and optimizing scan protocols. "Our technologists appreciate the artificial intelligence (AI) features that automate quality control functions, streamline processing, and ensure reproducible results," Basu notes. "It allows us to maintain a steady patient flow without sacrificing image quality."

Expanding access and lowering costs

As adoption of cardiac PET continues to increase, CDL is committed to scaling its services and expanding accessibility. "We are focused on helping providers integrate PET/CT in a way that aligns with their needs—whether that is through fixed-site installations, mobile solutions, or flexible rubidium-82 delivery," says Baer. "Our goal is to remove barriers and limitations so that more patients can benefit from this outstanding imaging modality."

For Basu, the transition to PET has been a game changer for his practice and his patients. "The ability to accurately diagnose coronary artery disease, reduce unnecessary procedures, and improve overall efficiency has been transformative," he says. "PET/CT is a paradigm shift in how we approach cardiac imaging."

As more providers recognize the clinical and operational benefits of PET, partnerships like the one between CDL, Siemens Healthineers, and HCVA will continue to drive adoption—ensuring that more patients have access to advanced cardiac imaging available today. ●

Claudette Lew is a freelance medical writer and editor.

For More Information

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