

Succeeding in Specialty Independent Care

SymphonySuite and Diamond Select support the entrepreneur.

WITH JIHAD MUSTAPHA, MD, AND FADI SAAB, MD



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CHALLENGE

Find a medical solutions provider to deliver comprehensive clinical and service support for the opening of an independent endovascular center.

SOLUTION

Philips SymphonySuite office-based lab program with a Diamond Select FD20 interventional x-ray system.

Jihad A. Mustapha, MD, and Fadi Saab, MD, colleagues at a Midwestern hospital, identified patients with critical limb ischemia (CLI) as being underserved. At-risk patients were not prioritized. Instead, they were placed on bed rest, only to return with serious infections. Amputation became the last resort for some.

Taking a leap of faith, the pair decided to open an independent CLI center in Grand Rapids, Michigan to address this perceived gap in CLI care. When looking for a partner to help them get started, they turned to Philips.



Figure 1. Interventionalists use IVUS to measure vessel size prior to treatment.

“These patients require a particular set of skills, techniques, and tools to improve blood flow to the lower extremities and ultimately prevent amputation to save a life,” says Dr. Saab. “You need the infrastructure with personnel and supporting staff, you need a well-trained team to treat patients with complex blockages in their arteries, and because the stakes are so high, you need to have high-quality tools to help open those arteries. That’s why we turned to Philips for support through their SymphonySuite program and Diamond Select interventional x-ray system.”

A PERFECT BALANCE BETWEEN QUALITY AND COST

Trained formally as cardiologists, Drs. Mustapha and Saab’s area of expertise is treating patients with peripheral vascular disease. A shared interest has led them to refine their focus to patients suffering from CLI.

The two opened an independent CLI center in Grand Rapids, Michigan in March 2018 under the name Advanced Cardiac and Vascular Amputation Prevention Centers (ACV). The center employs 40 people including three physicians and two mid-level providers. A second facility in Lansing, Michigan has recently joined the first. Since opening, Drs. Mustapha and Saab have pioneered groundbreaking endovascular procedures, including innovative balloon angioplasty and atherectomy, designed to restore blood flow and prevent amputations.

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–Fadi Saab, MD, FASE, FACC, FSCAI

BENEFITS OF OBLs INCLUDE:

SUPERIOR PATIENT EXPERIENCE

- Centralized patient care
- Consistent continuum of care with physician and staff

POSITIVE FINANCIAL OUTCOMES

- Overall cost per procedure decreases due to favorable reimbursement
- Cost-effective for the patient, practice, and health care industry
- Supports potential increase in revenue

IMPROVED EFFICIENCY AND WORKFLOW

- Control of your own schedule and treatment algorithm
- Examine and treat patients in one location

IDENTIFYING THE NEED

“The decision to open an independent CLI center for amputation prevention and salvage stemmed from the immense unmet need for patients who are faced with major/minor amputation,” says Dr. Mustapha.

Previously employed by a regional institution, both doctors became concerned when patients with CLI Rutherford classifications 5 and 6 were being treated as a secondary patient population, forced to endure wait times of anywhere from 3 to 4 months. After their repeated attempts to establish a streamlined process were met with resistance, they decided to venture out on their own.

Dr. Mustapha recalls, “In the hospital environment, we had no control as to when we could gain access to the cath lab to perform high-risk interventions on patients with infected or gangrenous wounds. Opening our own center where the CLI patient is the primary focus was our only option.”

Dr. Saab adds, “As an independent service provider, if you’re going to offer this kind of treatment, the biggest anxiety you have is concern about access to the same technology you might find in the hospital. We were fortunate when Philips came to us and said there is no reason why you should not have the same or better equipment.”

“What really matters is that critical components inside the system have been completely refurbished.

We’re pretty much getting a like-new device for less cost, but yet the highest quality imaging, which in the end is what we want. The Diamond Select system has lived up to its promise—100%.”

—Jihad A. Mustapha, MD, FACC, FSCAI

CHOOSING A PARTNER

“When we decided to investigate our options, we found that Philips had a dedicated solution and team to come work with us to provide the proper tools, guidance, and equipment,” says Dr. Saab.

Philips SymphonySuite is a suite of products and services tailored to fit the budgetary and clinical needs of office-based labs (OBLs). This ensemble of equipment and services work in concert to assist entrepreneurs with building, opening, and generating momentum for their OBL. Philips partners with OBLs (in this case an independent CLI center) to become a one-stop solution for all clinical needs.

Dr. Saab continues, “Partnering with Philips was an excellent clinical and financial decision that allows us to care for our patients in an environment that is equivalent or even superior to working in a hospital. There are other modalities and other ways to deliver therapy in outpatient settings with different equipment, and that might be adequate when dealing with less complex disease processes, but for the type of patients we’re treating, we couldn’t do our work without the Philips equipment.”

SELECTING AN IMAGING SYSTEM

“We reviewed every possible stationary and mobile system out there over the course of 6 months,” says Dr. Mustapha. “But for what we are trying to accomplish, which is a CLI-gearred center, we found that the best quality came from SymphonySuite and in particular the fixed interventional x-ray system. This

gave us the best images to deliver the best care to our patients.”

At the core of ACV’s SymphonySuite package is the Diamond Select FD20 system, a refurbished, high-performance interventional x-ray system, providing a like-new experience. As part of the Diamond Select process, existing systems undergo a comprehensive refurbishment including software upgrades, parts replacement, testing, and surface restoration. Each system is equipped with a brand-new x-ray tube, and is cleaned, disinfected, surface-smoothed, and professionally repainted. System geometry is put through extensive functional testing to ensure performance in line with original equipment manufacturer specifications.

For Drs. Mustapha and Saab, it was the logical decision. Dr. Mustapha notes, “If they didn’t tell me it was refurbished, I would never have known. Why would we pay additional money for a brand-new system? Having the reassurance from Philips that the quality of the Diamond Select imaging was going to be the same as new, it was actually a very straightforward decision to make.”

THE DIAMOND SELECT ADVANTAGE

CLI is peripheral arterial disease that results in inadequate blood supply to a specific part of the body—often the lower extremities. Typically caused by atherosclerosis, it can lead to blocked arteries that in turn can result in nonhealing wounds, infection, sepsis, and dry/wet gangrene. A limb-saving endovascular procedure can be performed using tools such as intravascular ultrasound (IVUS), drug-coated balloons, laser or mechanical atherectomy, and other available tools to help see clearly and treat optimally so that the artery is kept open for as long as possible.

Drs. Mustapha and Saab must rely on detailed fluoroscopic imaging to perform these difficult procedures. “Because of the complex nature of our patients’ conditions, we need superior imaging and we need the highest quality product out there,” says Dr. Saab. “The Diamond Select FD20 system delivers this for us.” Dr. Mustapha adds, “The quality of the image never forces me to repeat the acquisition to see what I am trying to see. There are many fewer retakes.”

The Diamond Select program strikes a balance between performance and return on investment. It combines robust clinical performance with high quality and attractive pricing. It assists ACV in providing the highest quality care, both now and into the

PROVIDING A COLLECTIVE SUITE OF OBL SERVICES

Philips SymphonySuite offers an ensemble of instruments and services working in concert to assist you with building, opening, and generating momentum for your OBL.

SPECIFIC SERVICES INCLUDE:

- Construction
- Dimensional laboratory renderings tailored to your lab; beneficial for site planning
- Practice workflow education with Philips Deep Venous Summit
- Marketing tools
- Equipment service contracts
- Product training
- Capital financing through Philips Medical Capital*

*Philips Medical Capital determines eligibility and not all customers will qualify. Certain credit requirements must be met.

future, while at the same time keeping their costs under control.

Dr. Mustapha suggests, “What really matters is that critical components inside the system have been completely refurbished. We’re pretty much getting a like-new device for less cost, but yet the highest quality imaging, which in the end is what we want. The Diamond Select system has lived up to its promise—100%.”

AN INTEGRATED OFFERING

ACV’s SymphonySuite package includes more than simply the Diamond Select FD20 interventional x-ray system. Philips has also provided integrated IVUS technology. This catheter-based imaging technology allows physicians to visualize blood vessels from the inside out. IVUS helps to decide, guide, and confirm the right interventional treatment for each patient.

Dr. Mustapha is particularly impressed with the advantage he enjoys through the close integration of the IVUS system. “The ultrasound system speaks directly to the Diamond Select system. We have two images

on our big screen, one for IVUS and one for fluoro, and we plan our entry and exit strategy based on these images. IVUS allows us to scan and find the chronic total occlusion (CTO) path, proximal and distal, and determine the best course of action. When you can actually see where you are in the vessel, there’s no way not to be successful crossing complex lesions. The average time to cross a 400-mm CTO is between 12 and 17 minutes. This has led to a 98% success rate.”

Although image quality is critical, dose savings is equally important. ACV’s Diamond Select FD20 is a ClarityIQ system capable of achieving excellent visibility at ultra-low x-ray dose levels. This feature has helped ACV reduce radiation dose. “Because we started the CLI center with the Diamond Select FD20 and IVUS systems, our average contrast utilization in extremely complex CLI cases (Rutherford classification 5 and 6) is < 50 cc per procedure,” says Dr. Mustapha. “We use a 1:3 ratio between contrast and saline. That’s just 25% contrast per injection, and we still get amazing images.” For CLI patients who may undergo multiple radiographic exams and procedures during the course of disease management, this is a significant benefit.

Beyond hardware and software, Philips provides training and support. When the Diamond Select FD20 system was installed, Philips was there at the center to train physicians on proper operation.

Philips service support helps ACV get the most from their investment, allowing for increased uptime, improved productivity, lower cost of ownership, and enhanced patient throughput.

LOOKING TO THE FUTURE

Nine months after opening ACV in Grand Rapids, it is at capacity. The fact that the center employs skilled physicians working on a high-performance, fixed interventional x-ray system has made it a magnet for CLI patients across the country.

“We believe the center that we’ve created is providing a much-needed service for patients with this deadly disease,” says Dr. Saab. “We feel that this model (meaning the hardware and the team) can be replicated in other locations around the country.” He continues, “People don’t believe you can have a fixed system in an outpatient setting. We have proven them wrong. We have proven you can partner with a company like Philips and achieve success.”

Dr. Mustapha concludes, “We would like to thank Philips for following through with their promise to deliver service and solutions that have allowed professionals like us become independent.” ■