

Improving care for heart, vascular and stroke patients

Heart, Vascular and Stroke

2020 Annual Report





2019-2020 performance periods measured 30 different quality and operational metrics with **67% improvement** and **17 cost saving** initiatives. **Over \$280,000 was saved** in terms of quality and cost efforts.

Dear colleagues,

We in the Beacon Heart, Vascular and Stroke Care Program appreciate the time you take to explore our impact on the health of our community in 2020 and beyond.

As you may recall from the last HVS Care Program annual report, there has been a transition to a system-wide service line and co-management program to ensure our services reach the greatest number of community members.

The system-wide HVS Care Program continues to focus on improving quality outcomes, patient experience and cost containment. The program does this by maintaining a physician-led governing council to oversee strategy, standards and resource allocation. The governing council measures adherence to evidence-based standards for clinicians and systems.

As you may imagine, the COVID-19 pandemic certainly had an effect on the community, health system, providers and staff. Overall volumes in the HVS Care Program declined as the system had to accommodate for a high COVID-19 census. As the pandemic restrictions are lifted, our program is focused on reaching the individuals who forewent procedures and treatment in the past year, while reaching those who need it now, too.

Throughout this report you'll see examples of how we expanded our care, improved offerings to our community and continued to strengthen our co-management arrangement.

A handwritten signature in black ink that reads "Sam Eldalati". The signature is fluid and cursive, with a stylized "S" and "E".

Sam Eldalati, MD
Chief Clinical Officer
Beacon Health System

Expanding our program

This year, the HVS Care Program ensured patients across Beacon had access to some of the most advanced treatments available. We expanded our capabilities with two new technologies:

Impella Heart Pump

The percutaneous left ventricular assist device, called the Impella, allows for coronary stenting of high risk patients who would otherwise require open heart surgery or who could not be safely operated on at all.

Watchman Program

The WATCHMAN™ Left Atrial Appendage Closure (LAAC) Device is a permanent implant that reduces stroke risk in people with atrial fibrillation not caused by a heart valve problem. It works differently from blood thinners by closing off a part of the heart where blood clots commonly form.



Preventative technology to reduce the risk of strokes

Donna Fawcett had been regularly seeing a heart doctor, but when a family friend referred her to Dr. Kulkarni at Beacon, she decided to switch. One of the first things Dr. Kulkarni did was recommend that Donna receive the WATCHMAN™ Implant. “It didn’t sound like something that was urgent, but his recommendation made sense, and they all made it so easy to schedule that I went ahead with it.”

Donna wasn’t in any discomfort or immediate risk of stroke but liked the idea of preventative care that could reduce the risk of strokes. The WATCHMAN™ Implant is a minimally invasive, one-time procedure designed to reduce the risk of strokes. With a **success rate of over 94%**, Beacon is proud to offer it to patients.

“I feel much more comfortable now knowing I have something that can help prevent a life-changing stroke,” Donna continues telling anyone considering a WATCHMAN Implant: “It’s worth it!”

Knowing you can do something to prevent a future stroke is just wonderful.”



A year with unique challenges

This annual report would be remiss in not mentioning the unique challenges brought about by the COVID-19 pandemic. HVS Care Program services were fully operational but at a diminished capacity. Elective procedures were delayed to help the overall health system accommodate a large number of COVID-19 patients. And many patients chose to delay visits and procedures out of caution during the height of the pandemic.

As the country comes out of the pandemic, Beacon Health System is making a significant investment in awareness of our cardiovascular and stroke services through marketing campaigns and a website redesign. We want our community to know that we are here for them – with **clean and safe facilities** and the **best Heart, Vascular and Stroke Care Program in the region.**



Advanced imaging that saves lives

What does it mean to put your heart into your work – literally?

Just ask Phil Panzica. An architect for over 42 years at Panzica Building Corporation, Phil led the team that designed and built the new Beacon Granger Hospital.

“During the building process,” Phil explains, “Beacon decided to put in this new state-of-the-art FFR-CT Scanner, which makes a 3-D image of your heart in action.” As the Granger Hospital build neared completion, they searched for trial patients to put the Fractional Flow Reserve Computer Tomography Scanner through its paces.

“I’m all in on a project, so I was all in on having that trial,” Phil says with a grin. **As amazing as the images were to Phil, the real shock came ten days later when he heard the full results of his scan.** “Turns out I had over 95% blockage in my main artery,” notes Phil. “I needed surgery right away.”

Today, Phil is grateful that Beacon invested in FFR-CT. “Had we not been designing a hospital; had they not asked for trial patients; had I not raised my hand and said I’d participate ... I might not be here right now.”

A partnership for success

Our co-management partnership between Beacon Memorial Hospital and Beacon Elkhart General Hospital allowed us to expand the use of technology with a reduced investment. Because of our **system-wide approach**, services like the WATCHMAN™ program reside in one facility but are leveraged for patients across the system.

Our physician-led governing council continues to be heavily involved in long-term plans for Beacon Heart, Vascular and Stroke services. Our physicians help develop our growth strategy and are an integral part in its success.

Beacon remains focused on becoming the leading patient-oriented, diversified Heart, Vascular & Stroke services provider in Michiana

Goals for the year ahead

- **Improve the management of chronic heart failure** patients with the creation of a dedicated heart failure clinic in South Bend.
- Assist with **standardizing vascular care across the system** by adding a vascular care coordinator.
- **Start a Transcatheter Mitral Valve Repair (TMVR) program** which allows patients to have a life-threatening heart valve leakage repaired without open heart surgery.
- **Improve the accuracy of diagnosis** of our stroke patients with enhanced use of CT imaging software.
- **Broaden the identification of patients** who can benefit from structural heart procedures with the use of new proprietary software (Echo systems).
- **Implement minimally invasive robotic thoracic procedures** at Elkhart General Hospital with Dr. Syed and at Memorial Hospital South Bend with Dr. Weber.
- Continue delivering **outstanding care, inspiring health** and **connecting with heart** for patients in our community.

Performance-based results

Many cardiovascular quality metrics are tied to Centers for Medicare and Medicaid Services (CMS) and Anthem quality scorecards that have a financial impact on our reimbursement. Our recent performance in these metrics helped us obtain **improved Leapfrog and Hospital Compare ratings**, while also **saving money and lives**.



Delivering outstanding care, inspiring health and connecting with heart in key metrics...

- 45 quality and patient experience metrics tracked at both Elkhart General Hospital and Memorial Hospital (90 metrics in total)
- 30 of those metrics are tied to a physician incentive program
- 30 Quality/Operational Metrics with **67% improvement**
- 17 Cost Saving Initiatives with **\$90,000 savings** recognized through Cardiovascular Procurement Committee



Providing our community new, advanced and high-quality services...

- WATCHMAN™ program
- Impella Left Ventricular Assist
- Coronary CT Imaging with Fractional Flow Reserve



Expanding co-management with sub-committees that include cardiovascular credentials...

- Structural Heart
- Vascular Services
- Congestive Heart Failure
- Cardiovascular Services

State-of-the-art technology that saves lives

Jennifer Guess was only in her 40s when she found herself in the emergency room at Beacon Memorial suffering from a serious heart attack. "The symptoms weren't like what you see on TV," notes Jennifer. "I didn't have chest-grabbing, huge pain. Instead I had blurred vision, bad headaches and some tightness in my chest."

When she first arrived, her heart was so weak that the team at Beacon was very concerned about her ability to recover. **"It took years of training and access to innovative technology to get us to the point where we could successfully treat a patient like Jennifer,"** notes Dr. Mittal.

Dr. Mittal used an Impella heart pump, a new device at Beacon, to temporarily support Jennifer's weak heart while placing stents in an artery that was 100% blocked. Even after surgery, her surgeon and nurses weren't sure she'd make it through the night, but within 24 hours, her heart had strengthened enough to remove the Impella.

"During the pandemic, visiting hours were very limited, and at night I was alone with my thoughts. I couldn't have done it without the doctors, the nurses, the chaplains — everyone who sat with me and held my hand. They explained every procedure to me and were so encouraging."



"The symptoms weren't like what you see on TV."

-Jennifer

HVS quality metrics

BHS-HVS	National Average	Baseline	Performance
Stroke: Door to tPA \leq 60 minutes	CMS: 50%	74%	71%
Stroke: Door to groin average time for neuro-interventions	VQI: 113 Minutes	110 Minutes	105 Minutes
PCI: In-hospital Mortality	ACC: 3.3%	1.8%	1.03%
CABG: Operative 30 Day Mortality	STS: 2.3%	3.08%	1.35%
TAVR: Observed 30 Day Mortality	TVT: 2.1%	0.75%	0%
PVI: Percent of claudicants receiving antiplatelet/anticoagulant plus statin at time of procedure	VQI: 68%	86%	87.3%
PVI: Patients receiving smoking cessation education	VQI: 50%	NA	75%
Carotid Artery Stent: In-hospital stroke or death	VQI: 1.6%	3.8%	0%

Revenue/Cost Reduction Highlights

Net Technical Revenue Contribution:

\$135.6 M annually

30 Quality/Operational Metrics with

67% improvement

17 Cost Saving Initiatives with

30% savings

recognized through Cardiovascular Procurement Committee

\$82,000 shared savings

from Medicare BPCI-Advanced Bundles for Cardiac Arrhythmia patient populations.

Focused on continual improvement of patient outcomes

National clinical practice guidelines provide the framework of the Heart, Vascular and Stroke Care Program and help us improve patient outcomes and patient experiences. Our program certifications and awards demonstrate our commitment to higher standards of care by using evidence-based care and practice guidelines.

These third-party certifications and awards are more than hard-earned accolades, they:

- Help establish a consistent approach (standardization) to care and reduce variation and risk of error;
- Align collaboration across all disciplines that care for the patients, including the office setting, pre-surgery, surgery and post-surgery care (nursing, therapies, case management, physicians and post-acute care);
- Improve efficiencies and outcomes;
- Provide an objective assessment of our program.

Awards & Certifications received in the past year include:



Healthgrades Stroke Care Excellence Award at EGH – May 2020

Healthgrades Cardiac Surgery Excellence Award at MHSB – May 2020

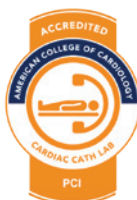


Heart Failure Recertification 2020 at MHSB – Intracycle review May 2020

Thrombectomy-Capable Stroke Center Recertification at MHSB – Intracycle review June 2020



Primary Stroke Center Recertification at EGH – Intracycle review July 2019



ACC Cardiac Cath Lab Accreditation at EGH – August 2019



American Heart Association 2020 Get With The Guidelines Gold Plus for Stroke at EGH and MHSB – July 2020



Echo Lab accredited in Adult TTE through ICAEL at EGH and MHSB – 2020



Learn more at
beacon.health/heart

Or find a referring heart, vascular and stroke
physician through our provider directory at
providers.beaconhealthsystem.org