



# Heart, Vascular and Stroke

2021 Annual Report



Providing unique expertise to our community

The dedicated providers in the HVS service line continue to focus on improving the quality of care with excellent patient outcomes by reducing care variations. This service line is well-positioned as a Center of Excellence with multiple awards and certifications provided by third parties that provide an objective assessment of our programs.

Dr. Sam El-Dalati  
Chief Clinical Officer  
Beacon Health System

# Dear colleagues,

Welcome to the 2021 Heart, Vascular and Stroke Care Program (HVS) at Beacon Health System.

Beacon HVS Care Program continues to focus on improving quality outcomes, patient experience and cost containment. This is done by maintaining a physician-led governing council led by multiple specialties, to oversee strategy, standards and resource allocation.

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**2021 performance periods** measured 47 different quality and operational metrics with **51% improvement** and **\$347,718 saved** across the system through **16 supply cost reduction efforts**.

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In 2021, the HVS service line initiatives included:

- Creating a dedicated heart failure transitional clinic in South Bend
- Starting a Transcatheter Mitral Valve Repair (TMVR) program at Elkhart General Hospital
- Adding new software to our CT scanners to improve the accuracy of diagnosis with stroke patients
- Implementing the CardioCare program across the system to help identify patients who can benefit from structural heart procedures
- Implementing a minimally invasive robotic thoracic program in cardiothoracic surgery

**Our teams deliver outstanding care, inspire health and connect with the hearts of our patients in the community.**



Dr. Walter Halloran and Dr. M. Shakil Aslam  
Co-Chairs of HVS Co-Management



## Complementing the Heart, Vascular & Stroke Co-Management Team: Beacon's Cardiovascular Team

The focus of the CV team has been strategic growth, competitive advantage, and outreach to increase our market share of smart growth and to improve our payer mix.

To achieve our future state vision and execute the CV services strategy, we continue to strive to have a high degree of collaboration and alignment across clinical and non-clinical stakeholders driven by a leadership structure that enables us to grow and expand to provide the highest level of care for our patients. Our top prioritized growth initiatives are building an infrastructure to support strategic direction, establish a comprehensive institute model for cardiovascular care with centers of excellence around core offerings, and to create an outreach and access plan.

Sg2 predictions for growth are:

- cardiac surgery, especially in minimally invasive procedures
- arrhythmia outpatient procedures
- outpatient peripheral atherosclerosis



Keely Paston  
Executive Director, Surgical Services  
Elkhart General Hospital

### Notable highlights

- Beacon became the first structural heart program in the region when we began performing MitraClip procedures at EGH in November 2021.
- TAVR volumes continue to grow at both EGH and MHSB.
- The purchase of the CardioCare software platform for BHS in 2021 has become a funnel for early detection of structural heart disease and increased our volumes for treatment of aortic and mitral disease.



# Certifications & Awards

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



Thrombectomy Capable Stroke Center recertification for MHSB – October 2021.  
*MHSB is the only center in the region providing this service and technology to the surrounding communities*



Primary Stroke Center  
Recertification at EGH – July 2021



American Heart Association  
2021 Get With The Guidelines  
Gold Plus for Stroke at EGH  
and MHSB – July 2021



ACC Cardiac Cath Lab Accreditation  
at EGH – August 2021



Heart Failure Recertification  
2020 at MHSB – Intracycle  
review May 2021



Three-star rating  
EGH – TAVR 30-Day  
Composite Rating  
4.1.17–9.30.20



Echo Lab accredited in Adult  
TTE through ICAEL at EGH  
and MHSB – 2021



MHSB has received VQI\_Spring 2022  
4 year cumulative best practices

“This surgery has made my life so much better.”

–Cheryl Scheidt, Beacon HVS Patient

## Technical procedures with a very personal impact

“I was in a bad way and when the doctor recommended a valve replacement, my husband and I agreed immediately.” Cheryl’s doctor specifically recommended the **new TMVR procedure** – a type of mitral valve replacement and repair surgery that allows cardiologists to treat severe mitral regurgitation or mitral stenosis without surgery. “The doctors and nurses – just everyone – were wonderful to me. This surgery has made my life so much better. I don’t have to be out of breath all the time and can really enjoy life more.”

# 2021 Heart, Vascular & Stroke Scorecard

HVS Quality Metrics	Source	Ntl avg/Goal	Baseline	Performance
Stroke: MHSB door (using MHSB door for transfers) to groin average time for neuro-interventions	NVQI	<100 minutes	105m	90 minutes
Carotid Artery Stent: In-hospital stroke or death	VQI	0.6%	0%	0%
Carotid Artery Endarterectomy: Asymptomatic admissions in-hospital stroke or death	VQI	1.2%	0.0%	0.0%
CABG: Observed 30-day mortality	STS	2.3%	1.3%	0%
TAVR: Observed 30-day mortality	TVT	1.7%	0.0%	0.95%
PCI in-hospital mortality	ACC NDCR	3.3%	2.4%	1.7%
MHSB Watchman: Proportion of procedures where patient had stroke (ischemic or hemorrhagic) or systemic embolism or mortality from procedure through within 45 days (track raw)	LAAO	2.0%	3.6%	1.5%
PVI patients receiving smoking cessation education	VQI	75%	74%	91%
PVI (all) patients receiving antiplatelet (ASA or P2Y12 inhibitor)+statin at discharge	VQI	85%	93%	94%



## Key performance metrics

Net Technical Revenue Contribution: **\$131M annually**

**\$347,718 saved last year** in cardiovascular supply saving initiatives compared to \$90,000 in the previous performance period

## Improvement in 30-day readmission rates

from the use of standardized order sets for heart failure so that patients are being discharged on appropriate medical therapies

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I feel so very fortunate to have had the care available to me at Memorial.



**Dr. Thomas Fischbach knows better than most all the preparation and training that have gone into the stroke care at Memorial Hospital. Dr. Fischbach is an Interventional Radiologist with the HVS team at Beacon but on one Saturday morning in September, he was simply a patient.**

Thomas was alone that morning with an unexpected day off and his wife out of town. As he tried to put his watch on, he noticed that his left hand felt funny and thought about laying down for a few minutes to see if it would go away. No sooner had he thought that when he felt the odd near-paralysis moving up his arm. At that moment he knew something serious was happening and he thought he might be having a stroke.

Thankfully, he was still able to call 911. By the time the paramedics arrived, Thomas' left side was completely paralyzed. They rushed him to Memorial where the stroke team was ready for him and immediately offered tPA treatment. tPA is a medication given to patients through an IV that dissolves blood clots that block blood flow to the brain. tPA is only effective if administered in the first few hours of a stroke – which means time is of the essence.

Thomas estimates that within an hour from the time of his 911 call he was receiving treatment. “I have a new appreciation for how quickly life can change and feel very fortunate that I was awake and aware and able to move past the feeling of ‘this can’t be happening to me.’”

“The entire process just worked the way it was supposed to and I feel so very fortunate to have had the care available to me at Memorial.”

## Strokes can be preventable with the right treatment: WATCHMAN™ Implant

Shirley admits she was a little suspicious about a preventative treatment for strokes when her doctor recommended the WATCHMAN™ Implant. "I had never heard of such a thing but my doctor was so good about telling me what was going to happen the whole time and I really appreciated that." Now that she's had the procedure, Shirley can't believe she ever questioned it. "It went so smoothly. I feel less worried and my check-ups have all been really good! I'd recommend it to anyone."

– Shirley Swartzendruber,  
Beacon HVS Patient



## Goals for the coming year

- WATCHMAN™ Implant procedures have continued to grow at MHSB with three implanters. In 2022, we plan to perform WATCHMAN™ Implant procedures at the EGH campus with two additional implanters.
- BMG has hired a second vascular surgeon for MHSB and is actively recruiting a third to be dedicated to EGH.
- A top priority is to hire a Vascular Coordinator to help build our new vascular screening program. We are also finalizing our follow-up surveillance guidelines for key vascular procedures.
- BHS has seen a continued decline of thoracic procedures with outmigration to Fort Wayne and Indianapolis. With the purchase of the Monarch at EGH in 2022 for robotic bronchoscopies for diagnosing and staging lung cancer, we will be able to increase our volumes of thoracic procedures. This initiative will help us to build a robust lung cancer program.
- MHSB is working toward certification of the Cardiopulmonary Rehab Program.
- Both EGH and MHSB are working toward certification of the Transcatheter Valve programs.
- Continue providing education and awareness to the communities we serve and primary care physicians on WATCHMAN™ Implant, TAVR and TMVR procedures that can be performed right here in our region.



## The impacts of the COVID-19 pandemic continue to be felt

The COVID pandemic continues to have an effect on the community, health system, providers and staff. Overall volumes in the HVS program remain flat compared to 2020. Because of bed shortages, elective and urgent procedures at times had to be delayed to accommodate for high COVID census. Our physicians and staff continue to adjust accordingly to meet the needs of patients, families and communities.



Learn more at  
[beacon.health/heart](https://beacon.health/heart)

Or find a referring heart, vascular and stroke  
physician through our provider directory at  
[providers.beaconhealthsystem.org](https://providers.beaconhealthsystem.org)