



Collaborative Neurosurgery Care

2021 Annual Report



Beacon Neurosurgery Care Co-Management members

Daniel Fulkerson, MD
Wei Xia Huff, MD
Heather Kistka, MD
Walter Langheinrich, MD
Neal Patel, MD
Joseph Schnittker, MD
Kashif Shaikh, MD
Stephen Smith, MD

A message from the Neurosurgery Care Co-Management Program

We are pleased to present the first annual report by the Beacon Neurosurgery Care Co-Management program since it formed in 2019. This report highlights progress toward creating a unified neurosurgical program that provides outstanding care for patients in all the communities we serve.

Our collaborative approach in 2021 focused on three primary areas for improvement: clinical quality and effectiveness, safety protocols and the patient experience. This report showcases our initiatives to develop systemwide protocols, produce patient education materials, and expand our outreach and access to services.

In 2022, we plan to begin a three-year journey toward certification as a center of excellence in spine surgery at Elkhart General and Memorial Hospitals. Our first steps include the formation of a Spine Committee to focus on reducing care variations, implementing standard order sets, and converting to a network-wide digital platform. The addition of a spine registry gives us an important tool to track patient outcomes.

This is only the beginning for our co-managed program. We look forward to even greater accomplishments in coming years as we strive to become the premier neurosurgical destination in our region.

Heather Kistka, MD, and Kashif Shaikh, MD
2021 Chairs of the Neurosurgery Care Co-Management



Sam El-Dalati, MD
Chief Clinical Officer
Beacon Health System

We launched our Neurosurgery Care Co-Management program in 2019 as a collaboration between Elkhart General and Memorial Hospitals. The alliance by members from multiple sites of service led to enhanced clinical and operational performance for the service line.

In 2021, Neurosurgery Care served more than 7,700 patients from several communities we serve. Co-Management members worked closely with administrative leads to initiate important quality improvements and realize significant cost savings for the health system. The service line also launched a three-year effort to attain certification as a center of excellence in spine surgery for both Elkhart General and Memorial Hospitals.

We are confident this co-managed team will continue to lead with strength to provide quality neurosurgical care for our communities.



Collaboration between Elkhart General and Memorial Hospitals with administrative leads has led to improvements in clinical and operational performance across the Neurosurgery Care Co-Management program. MEDl leadership coaches identified areas of strengths and challenges to help the group work together in the development of standard care protocols and to reduce case costs.



Debra R. Thompson,
MSN/MBA, BSN, RN, CNOR
Executive Director, Memorial
Hospital Surgical Services

2021 Program Highlights



\$214,306
cost savings

from vendor standardization to
reduce surgical supply costs in
biologics, 3D custom bone flaps
and cranial plates

\$45.1M
annual revenue



2021 Performance Metrics

100% intraoperative
acceptance
of standard shunt protocol

63% acceptance
by patients of standard
education materials for elective
spine surgery

15% improvement
in on-time surgical start times

11% increase
in coordination of home health
care for patients prior to
discharge after elective lumbar
spine fusion surgery

Bringing neurosurgery care to our communities

Our neurosurgical care team traveled to Beacon facilities outside of Elkhart General and Memorial Hospitals to expand access to clinical care for patients in 2021. The outreach offers patients in outlying communities a convenient way to receive follow-up care closer to home.

Neurosurgery specialists see patients at Beacon Medical Group facilities in La Porte and Mishawaka. They also travel to Michigan City for patient appointments. With the opening of Beacon Goshen Outpatient Center in 2022, patients will have access to a surgeon in the Dunlap and north Goshen area.



Patient education initiative

We launched an initiative in 2021 to develop standard education materials for patients preparing for spine surgeries. Studies show that the preoperative information helps patients control anxiety, reduce pain, shorten lengths of stay, and improve overall satisfaction.

More than 63 percent of patients received the Beacon Neurosurgery packets in 2021. The information explained what to expect before surgery, during their hospital stay and after discharge to recover at home.

Lumbar surgery relieves sciatic nerve pressure and pain

Progressive back pain and numbness from a long history of sports injuries had sidelined Jim from most activities he enjoyed in life. "I was losing muscle control and had severe sciatica running down both my legs." Jim was dependent on a walker to get around, even after years of cortisone shots, pain relievers and physical therapy. Finally, Jim turned to neurosurgeon Heather Kistka, MD, at Elkhart General Hospital for a laminectomy and foraminotomy to ease pressure on the nerves around his spinal cord.

"All my sciatica was gone as soon as I got out of surgery. I have almost no pain in my back. It was amazing."

Now Jim has hope he can return to normal activities – including a spin on his mountain bike.

– Jim Pendergrass,
Beacon Neurosurgery patient





Minimally invasive procedure releases fluid pressure on the brain

On the outside, Greyson Young appeared to be a perfectly happy and healthy baby. But deep inside, a buildup of cerebrospinal fluid pressed on his brain and skull. Greyson was diagnosed with hydrocephalus at nine months old. Two days after his diagnosis, Greyson's parents met with neurosurgeon Daniel Fulkerson, MD, at Beacon Children's Hospital. "I immediately felt at ease after we met and started talking,"

Ashley Young said. Greyson's parents chose an endoscopic procedure called an ETV, or endoscopic third ventriculostomy, for their young child. The surgery created a new pathway for fluid to bypass the blocked area in Greyson's brain and circulate naturally.

A year after surgery, Greyson was on a path to a complete cure.




2022 Initiatives

- **Improve patient access to care** by decreasing days from referral date to first appointment
- **Increase percentage of elective spine surgery patients** who receive educational booklet from their provider
- **Improve on-time starts** in OR suites
- **Maintain shunt infection rates** at or below national target of 8%
- **Improve number of shunt patients** receiving 24 hours of antibiotics for shunt surgeries in pre- and postoperative phases
- **Implement “closing time-out” checklist compliance** for instrumented spine neurosurgery OR cases
- **Implement standard cervical spine postoperative order sets** and measure systemwide compliance
- **Implement standard lumbar spine postoperative order sets** and measure systemwide compliance
- **Implement the American Spine Registry** and measure systemwide compliance to complete data entry
- **Implement neurosurgery patient optimization protocol** for elective spine surgeries and measure systemwide compliance



2022 Annual Cost-Savings Initiatives

- **Reduce biologic expense** based on average cost per level
- **Reduce expenses through standardization** of neurosurgery cases



Outstanding care
for patients in all
the communities
we serve.



Learn more at
beacon.health/neuro

Or find a referring physician through our provider
directory at providers.beaconhealthsystem.org