

Business Outcomes, Patient Outcomes, and Reimbursement Trends

Raleigh Neurosurgical Clinic makes the case for neurovascular office-based labs.

Neurovascular diseases present formidable obstacles for both patients and health care providers. As advancements continue to unfold within the realm of neurovascular intervention, the emergence of office-based labs (OBLs) is progressively reshaping the delivery of specialized care, offering innovative solutions to these long-standing challenges.

In our previous article, the leading practitioners at Raleigh Neurosurgical Clinic in Raleigh, North Carolina, shared their pioneering journey. They unveiled their transformation as the inaugural office-based neuroendovascular practice nationwide to incorporate a Siemens Healthineers fixed biplane angiography system.

In the following discourse, they delve deeper into the intricate dynamics between an OBL's impact on patient outcomes and an evolving reimbursement landscape. Together, these factors forge a compelling business case for the modernization of neurovascular care delivery.

IMPROVED PATIENT OUTCOMES

Located in Raleigh, North Carolina, Raleigh Neurosurgical Clinic is swiftly gaining a reputation for its innovative approach to patient care, particularly for conditions such as stroke, aneurysms, and arteriovenous malformations. This private practice harmoniously integrates advanced technology, expert care, and personalized service, all situated within the comfortable and accessible framework of an outpatient setting.

Andrey Belayev, a neuroendovascular surgeon at the clinic, elaborates on their operating strategy: "We perform diagnostic angiography and straightforward procedures at our OBL, reserving the hospital environment for more complex interventions. Approximately 99% of our OBL procedures consist of diagnostic cerebral angiography, a technique involving endovascular catheterization and brain imaging. We also conduct spinal angiography and kyphoplasty procedures. Our use of the Siemens Healthineers biplane angiography system sets us apart from many OBLs that operate with single-plane angiography systems. This superior technology enables us to acquire double the data or imaging



Figure. Raleigh Neurosurgical Clinic was built to minimize physical and emotional stress for patients.

compared to a single-plane system, thereby accelerating the procedure and decreasing the risk to the patient."

Dr. Belayev adds, "In the hospital, we rely on the femoral approach because procedures are more complicated or complex and often require the use of other devices. It's a different scenario there. Furthermore, hospital recovery nurses typically take care of many patients, so they don't always have the time or proximity to offer individual attention. Patients are spread out, and the level of attention they receive in our OBL setting is not always possible."

He further emphasizes the efficiency of their OBL procedures. "By performing our angiograms using a radial approach, patients can mobilize more quickly, and recovery time is reduced to just 2 hours. This heightens patient comfort and contributes to a more efficient experience."

The OBL model places a high emphasis on convenience and accessibility, providing a less intimidating environment for patients to receive their treatment. This can significantly lower anxiety and enhance overall patient satisfaction. Additionally, OBLs typically offer shorter wait times for procedures, enabling more timely interventions and potentially leading to improved clinical outcomes.

Jacob Rodman, the clinic's CEO, compares the patient experience at their clinic to a boutique service. "We provide patients with iPads (Apple, Inc.) to stream entertainment.

ARTIS Q BIPLANE SYSTEM

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Figure. Dr. Belayev performs an angiography procedure in the OBL.

They can catch up on the news or enjoy a snack and refreshments in a relaxed setting. Our primary concern is ensuring that the right care is delivered in the right place. This approach not only benefits our patients but also allows hospital angio suites to focus on caring for more critically ill individuals.”

The adaptability inherent in the OBL model allows for the selection of the most suitable technology and equipment for minimally invasive procedures. The clinic’s use of the Siemens Healthineers biplane angiography system exemplifies this advantage. By minimizing the physical and emotional stress often associated with traditional hospital-based care, OBLs like Raleigh Neurosurgical Clinic are significantly contributing to enhancing patient outcomes and the overall quality of life.

BUSINESS OUTCOMES

Neurovascular OBLs offer significant business benefits for health care providers, presenting a pathway to enhance operational efficiency, bolster cost-effectiveness, and amplify financial performance.

Operating with a streamlined workflow and specialized staff, OBLs facilitate efficient patient throughput and diminished overhead costs. By focusing on neurovascular interventions, OBLs can leverage economies of scale, channel investments into cutting-edge equipment, and attract top-tier neurointerventional specialists. This concentration of expertise often culminates in superior clinical outcomes, thus solidifying OBLs as favored destinations for both patients and referring physicians.

Moreover, the business model of OBLs fosters predictable and steady revenue streams. With a strategic focus on spe-

cialized procedures, OBLs can negotiate advantageous reimbursement contracts with payers, which effectively mitigates financial uncertainties. The industry-wide shift toward value-based care and bundled payments further incentivizes OBLs to optimize outcomes while conscientiously managing costs, thereby fostering financial stability and growth.

Expanding on the business advantages, OBLs’ streamlined processes and shorter wait times can result in an enhanced reputation, not only among patients but also within the larger health care community. This can attract additional referrals, further boosting revenue and growth potential. A reputation for high-quality, efficient care can also attract more skilled professionals to the OBL, further contributing to its clinical and financial success.

Additionally, OBLs can be more agile and innovative compared to larger, more bureaucratic hospital systems. This agility allows for rapid adoption of emerging technologies and techniques, which can further enhance patient outcomes, operational efficiency, and cost-effectiveness. Thus, by being at the forefront of neurovascular care, OBLs can better negotiate with vendors, ensuring they secure the best possible terms and maintain their competitive edge in this rapidly evolving field.

REIMBURSEMENT TRENDS

Reimbursement is a pivotal component to ensuring the sustainability and expansion of neurovascular OBLs. Grasping the evolving reimbursement landscape is crucial for navigating the intricacies of billing processes and guaranteeing fair compensation for services rendered.

The value added by OBLs in the realm of neurovascular care is increasingly being recognized. Payers are progressively acknowledging the cost-effectiveness and superior outcomes demonstrated by these facilities, leading to wider coverage for procedures performed within an OBL setting.

Humorously, Dr. Belayev notes, “You don’t get paid more for delivering tomorrow’s care today. However, payers are advocating for a higher number of procedures to be performed in outpatient settings. We’ve witnessed this transition over the years. We’re now performing more complex spine surgeries in the ambulatory surgical center setting. Anticipating and responding to that need early on was the optimal strategy for our private practice.”

The shift toward value-based reimbursement models underscores the importance of patient outcomes and quality metrics. OBLs that consistently demonstrate excellent clinical outcomes and high levels of patient satisfaction may negotiate higher reimbursement rates and secure partnerships with accountable care organizations and other risk-sharing entities.

Dr. Belayev adds, “Until changes in coding and reimbursement are implemented through Medicare and

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private payers, we are somewhat restricted in what we can achieve. At present, we face challenges in integrating interventions into the OBL setting. However, payers are eager for this transition, and it's not going to impede the emergence of OBLs. I'm confident that changes in payment policies will align with this evolving model."

It is crucial for OBLs to stay informed about changes in reimbursement policies, ensure accurate documentation, and actively participate in quality improvement initiatives. Collaborative efforts with professional societies, advocacy for fair reimbursement, and lobbying are all key to securing the long-term viability of neurovascular OBLs.

CONCLUSION

Neurovascular OBLs have emerged as a transformative force in the field of neurointerventional care. By prioritizing patient outcomes, optimizing business performance, and rapidly adapting to the evolving trends in reimbursement, OBLs are uniquely positioned to deliver high-quality, cost-

effective care for patients with neurovascular diseases. As the health care landscape continues to evolve, it is crucial for OBLs to stay proactive, embrace new technologies, adjust to regulatory changes, and keep up with evolving reimbursement models, ensuring their sustained success in improving patient outcomes and shaping the future of neurovascular care.

Dr. Belayev predicts, "I foresee a rise in the number of neurovascular OBLs in the future, following a similar model. We may be among the first, but this idea has been under consideration for some time. This is just the beginning." ■

Disclaimer: The statements by Siemens Healthineers' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (eg, hospital size, case mix, level of IT adoption), there can be no guarantee that other customers will achieve the same results.

This is Part 2 of an OBL series highlighting the benefits for neurovascular procedures. See Part 1 to read about why Raleigh Neurosurgical Clinic opened an OBL and what it means for their patients.



Andrey Belayev, MD
Endovascular Neurosurgeon
Raleigh Neurosurgical Center
Raleigh, North Carolina

Dr. Andrey Belayev is board certified in neurosurgery. In addition to his clinical practice as a general neurosurgeon, he specializes in the treatment of neurovascular disorders including aneurysms, vascular malformations of the brain and spine, carotid artery stenosis, and the acute treatment of stroke.

Dr. Belayev earned his medical degree at the University of Miami Miller School of Medicine. He then completed his residency in neurosurgery at University of Texas Health Science Center at San Antonio, where he served as Chief Resident. He completed his fellowship training in open cerebrovascular surgery and endovascular neurosurgery and at the prestigious Semmes-Murphey Clinic in Memphis. He completed a fellowship and advanced clinical training in microvascular and endovascular neurosurgery with the World Federation of Neurological Societies in Nagoya, Japan. Dr. Belayev is the author of several peer-reviewed manuscripts and has been invited to present his research findings at respected clinical meetings around the world.



Jacob Rodman, CEO
Raleigh Neurosurgical Center
Raleigh, North Carolina

Jacob Rodman is the Chief Executive Officer for Raleigh Neurosurgical Clinic, Inc., a group that was established in 1954. Jacob has over 20 years of management experience encompassing leadership positions at every level. He is a past president and board member for the North Carolina Medical Group Managers Association (NCMGMA). Jacob has also served on several advisory committees and boards for United Healthcare of NC, BCBS of NC, the Town of Morrisville's budget office, Medical Mutual Insurance Company, and Wake Monarch Academy.

Jacob is currently President Elect for the Neurosurgery Executive Resource Value & Education Society (NERVES). Jacob is a board-certified medical practice executive by the American College of Medical Practice Executives (ACMPE). Jacob has presented both nationally and internationally on a variety of topics surrounding medical practice management and leadership.