Title: Value Based Analysis of Strategic Initiatives Aimed at Optimizing Patient Access in the Neuroscience Service Line

Name & Institution: Deanna Sasaki-Adams, MD, MBA; University of Arkansas for Medical Sciences
Mentors: JD Day MD, Dean Richard Smith MD, Dean Cristy Page MD
Collaborators: MJ Orellano MBA, Danele Poole MBA

Problem

There are currently greater than 600 patients waiting in the electronic queue to be scheduled for a clinic appointment in the neurosurgery clinic. When combined with other providers in the neuroscience service line, the number exceeds 1400. Poor patient access can have implications for patient safety, patient satisfaction, provider satisfaction, future referrals, and the financial health of the University of Arkansas for Medical Sciences (UAMS).

Background

The neurosciences service line is composed of multidisciplinary teams from neurosurgery, neurology, orthopedic spine specialists, oncology, and interventional pain. The neuroscience service line's operational guiding principles include a commitment to patient and family centered care and excellence in customer service. The overarching goal is to make "every patient feel that they would recommend our services without hesitation, reservation, or qualification to their family members, friends, and the public at large". The service line is made up of 70 faculty and advanced practice providers. The surgical component of the neuroscience service line is comprised of 13 providers including both neurosurgeons as well as orthopedic spine surgeons. Each surgeon spends and average of 2 days per week in the outpatient clinic. The clinic is staffed by three front desk staff, a nursing manager, a nurse, and patient representatives who are responsible for scheduling, insurance authorizations, and preliminary assessments.

Methods

Using Microsoft Excel and Power BI, we reviewed patient access data from June 2022 through March 2023. We reviewed the number of referrals received, patients scheduled, and completed visits. We reviewed OR utilization. We completed a process map for the current scheduling mechanism and did an operational evaluation of the time and expertise needed for each of step. We then created three separate scenarios and performed a value-based assessment of each to determine which approach would optimize patient access and minimize cost.

Results

We found that clinic templates were only being scheduled at 17% of the surgeon's capacity. There was also a 30% no-show and late cancellation rate indicative of poor scheduling practices. The process map allowed us to see that there were significant inefficiencies in the system with duplication of work and multiple touches per each referral. After modeling out the three separate scenarios, we determined that a "pod" approach for patient access optimization offered the greatest rate of return in both tangible and intangible metrics. The "pod" system involves dividing subspecialties into teams with each member working at top of license to improve access and optimize both patient and provider satisfaction.

Discussion

The "pod" based team approach was presented to the Chancellor and the board and was approved in the budget for fiscal year 2024. We are in the process of hiring 4 nurse coordinators and fill the previously vacated patient representative positions. To ensure that we developed an optimal and sustainable solution, we developed a score card which will be assessed monthly according to metrics reflecting OR utilization, clinic template fulfillment, patient satisfaction, and provider satisfaction.