

CASE STUDY

STRENGTHENING LONG-TERM FOLLOW-UP FOR VASCULAR PATIENTS WITH VQI REGISTRY DATA

EXECUTIVE SUMMARY

Strengthening vascular registry data capture and access holds strong potential to increase follow-up visit rates among patients who have undergone vascular surgery. This not only improves health outcomes across vascular conditions, but also elevates center performance while reducing administrative burden for staff.

For three health systems, use of a cloud-based registry solution to facilitate long-term follow-up and track long-term follow-up (LTFU) rates empowered these organizations to achieve follow-up rates of 75%, 80% and 90%. It also improved communication among the quality team and other team members and increased staff and patient engagement—even amid the pandemic.

THE CHALLENGE

Vascular surgery patients who do not receive the appropriate follow-up are **more likely to experience poor health outcomes** over both the short and long term. Yet centers commonly struggle to get vascular surgery patients to return for a follow-up visit one year after their procedure. Sometimes, patients forget to schedule a follow-up appointment at the one-year mark or consider these appointments a “nice to have” option instead of a health necessity. COVID-19 further complicated follow-up efforts when the pandemic initially forced these visits to be **put on hold**. The more time passed, the harder it became to reengage patients in timely follow-up.

But there’s another factor that limits practices’ ability to ensure vascular patients get the right care a year after surgery: lack of easy access to data that identifies which patients require follow-up. Without a clear view of which patients to reach out to and when, LTFU rates suffer. This not only puts health outcomes at risk—especially among **men and patients who are Hispanic or Black**—but also threatens quality performance.

THE SOLUTION

Three health systems experiencing low LTFU rates committed to leverage their subscription to the Society for Vascular Surgery’s Vascular Quality Initiative (VQI)—a network of regional groups that rely on a patient safety organization and a cloud-based system to collect and analyze vascular data—to help bring their LTFU rates in line with that of regional and national peers. Unlike many other registries, SVS VQI equips users with tools to capture and encourage long-term follow-up, such as outcomes reports, system worklists, and center scoring. The registry and its reporting capabilities are driven by the Fivos PATHWAYS® platform, a cloud-based, customizable solution for real-time data collection, analysis, and long-term outcomes assessment.

HOW THEY DID IT

UC Davis Health

At UC Davis Health, long-term follow-up rates for patients undergoing endovascular aortic aneurysm repair (EVAR) or thoracic endovascular aortic aneurysm repair (TEVAR) was 67% from 2018–2019, with sac diameter reporting of 77% for EVAR and 50% for TEVAR. The health system sought to increase the percentage of patients receiving long-term follow-up—defined as an appointment at 9–21 months post-procedure—and sac diameter reporting for TEVAR and EVAR procedures.

Key stakeholders, including quality improvement professionals, vascular surgeons, and vascular/clinic nurses, evaluated existing workflows and established standard processes for registering eligible patients in the PATHWAYS platform. The team also updated the Specialty Note section in Epic to communicate with clinicians regarding the patient's inclusion in the VQI and the time frame for scheduling follow-up appointments. From there, the team developed a shared spreadsheet between the quality team and clinical staff that identified patients who had not yet received their one-year follow-up visit. A similar process was applied for TEVAR and EVAR cases. With this information in hand, an aortic coordinator reached out to patients to schedule phone calls and video follow-up visits and arranged for imaging procedures to be completed at convenient locations, with the results reviewed by health system physicians when available.

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NewYork-Presbyterian/Weill Cornell Medical Center

At NewYork-Presbyterian/Weill Cornell Medical Center, inadequate data entry into the VQI registry database for vascular cases performed in 2018 led to a long-term follow-up rate of just 32%. The center sought to increase its LTFU rate to 75% for cases entered in 2019 and beyond.

NewYork-Presbyterian/Weill Cornell Medical Center's quality management specialist/data manager met monthly with quality analytics team members, the vascular service line, and vascular physicians to discuss issues with long-term follow-up. Teams conducted biweekly huddles to assess ways to improve data capture and performance and evaluate progress as well as barriers to improvement and ways to overcome them. By identifying the root causes of LTFU, new processes were introduced, such as informing physicians and the scheduling team of the need for long-term follow up by patient so that patients could be prioritized for visits.

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“At SVS VQI, we’ve found that supercharging communication between data quality teams and members of the vascular team deepens motivation among everyone involved—and that improves vascular follow-up rates. We’re excited by the progress these systems have made by leaning into registry data and the improvements that continue to enhance health outcomes for vascular patients.”

Betsy Wymer, DNP, RN, CV-BC
SVS PSO Quality Director | Vascular Quality Initiative

Carilion Roanoke Memorial Hospital (CRMH)

VQI regional reports indicated that compliance for long-term follow up for vascular procedures at CRMH varied by procedure, with rates as low as 14% for some procedures in 2015. As a VQI subscriber, the facility was given a probationary period to improve rates to 50% or better. CRMH engaged an outside physician group and an internal physician group in efforts to obtain and maintain a $\geq 90\%$ compliance for procedures performed in 2019 prior to the 2021 registry deadline, a goal that aligned with VQI’s established star ratings. The health system also developed clear expectations for follow-up, including appointments at two weeks, six months, and 9-21 months. Telephone visits were determined to be acceptable when live visits were not possible.

CRMH performed a complete evaluation of follow-up processes and barriers at non-Carilion as well as Carilion practices, since both perform vascular surgeries at CRMH. A data abstractor began to review medical records nine months after a procedure took place and created a follow-up appointment schedule. This improved communication of expectations and provided a roadmap for completion of follow-up visits. Given the distance some patients needed to travel to obtain care from these rural offices—a barrier to timely follow-up—and the challenges created by COVID-19, phone visits became increasingly important. Team members built greater capacity for phone visits into schedules to accommodate patients unable to make appointments in person.

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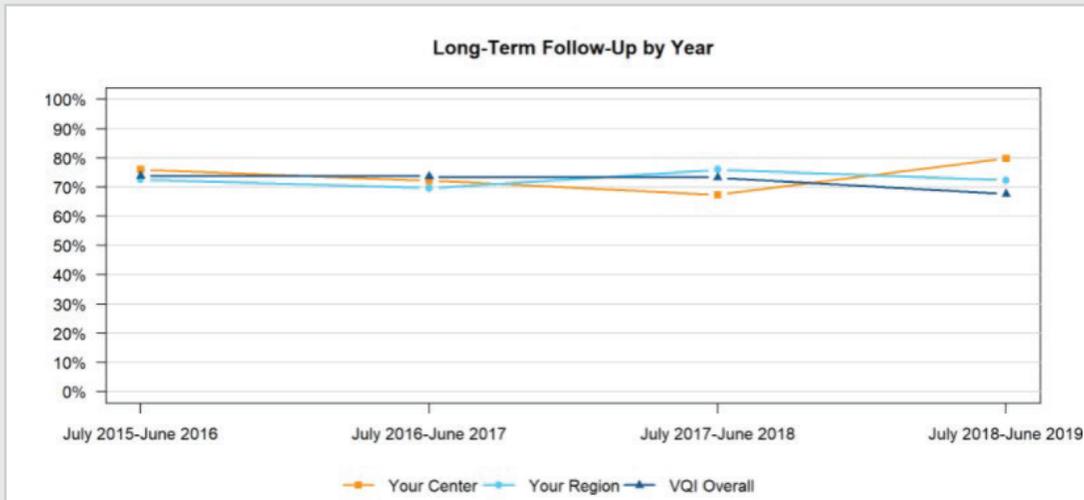
IMPACT

UC Davis Health

Consistent communication and collaboration enabled UC Davis Health to raise its long-term follow-up rate to up to 80% within a year. Sac diameter reporting for EVAR and TEVAR patients also increased significantly—from 55% to 90% for TEVAR and from 46% to 89% for EVAR—surpassing internal targets. Today, efforts to leverage VQI data to highlight patients who will soon fall outside their follow-up window enables patients to be scheduled more urgently.

EXHIBIT ONE

Evaluating Vascular Follow-Up Improvement at UC Davis Health

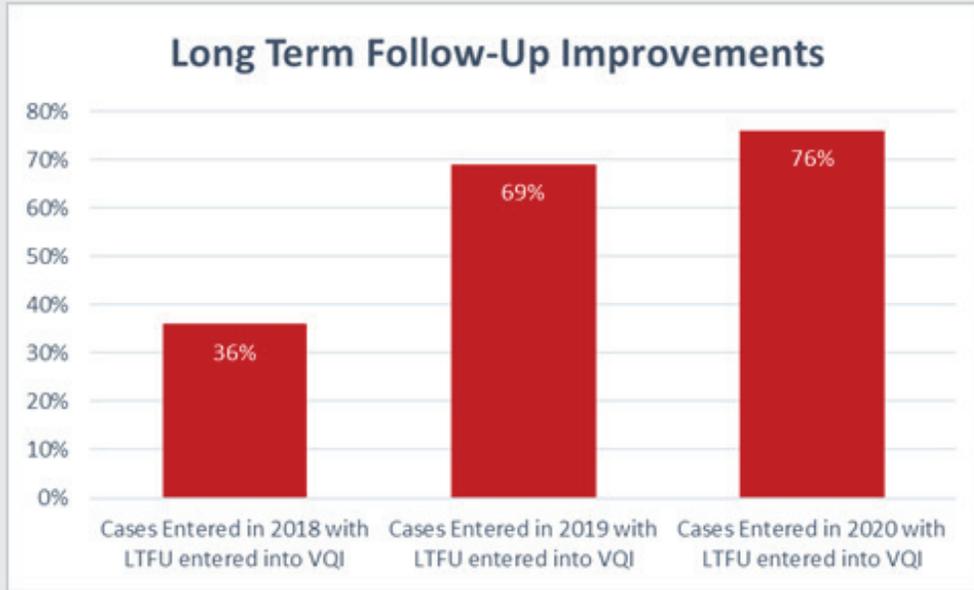


NewYork-Presbyterian/Weill Cornell Medical Center

Once new staff were recruited and improvement strategies had been implemented, follow-up rates reached 67% in 2019. Today, improvement efforts continue at NewYork-Presbyterian/Weill Cornell Medical Center. COVID-19 presented challenges to follow-up efforts with 14% of patients not returning for follow-up between March and May of 2020—a peak pandemic period in NYC. Continuing their improvement strategies, the hospital hoped to increase LTFU by 10–15%. Current LTFU for 2020 cases is now 76%.

EXHIBIT TWO

Tracking Long-Term Follow-Up Progression at NewYork-Presbyterian/Weill Cornell Medical Center



CRMH

By September 2019, long-term follow-up rates increased to 71%. Ongoing work with both JSC and CAC led to an overall LTFU rate of 89% in 2018 and 85% in 2019.

Gaining remote access to the non-Carilion practice records in 2019 significantly improved data capture. Formerly, the data abstractor would have to travel to these clinics to gain access to patient charts.

EXHIBIT THREE

Improving Long-Term Follow-Up Rates for Vascular Procedures at CRMH

