How might we use ePROs to empower surgeons to empower patients?

Outside of the operating room, surgeons can have numerous blind spots and biases in understanding the health status of their patients before and after surgery. This is exacerbated by the fact that underserved patients are typically disproportionately under-reporting their PROs. This creates uncertainty and anxiety for the surgeon, and inability to proactively intervene for patients who might need to be seen more urgently. There is additionally a lack of complete understanding of the patient recovery experience, which can make preoperative counseling challenging.

The STS ePRO platform is a simple, streamlined process for patients to report their outcomes and stay engaged with their post-operative recovery. Surgeons are able to use this information to intervene more rapidly for deteriorating patients and predict post-operative outcomes. The surveys are optimized to make the experience fluid for the patient and the surgeon to complete and receive the results. Patients will be onboarded to the ePRO platform via a simple QR code or link. Each survey takes less than 1-2 minutes to complete and is delivered to the surgeon for review. The results of the PRO are customized to each patient to help them understand their post-operative course. The results are made available at the first visit, and the ePRO will be delivered to patients at regular intervals for a year after the surgery.

"The inclusion of PRO's represents the first time the STS ND has been able to include the assessment of long-term patient quality of life data in its quality measurement portfolio", says Felix Fernandez MD, Chair of the STS Workforce on National Databases. "Quality of life is a primary reason Patient's undergo cardiothoracic surgical operations and the ability of the STS ND to track patient quality of life over time will greatly benefit our patients and clinicians in selecting therapies by allowing them to understand the expected long-term functional benefits conferred by surgical therapies" said John Calhoun, MD, STS President. "This is the next great step in the advancement of patient centered care by the STS."

PROs have changed the paradigm in how we understand how our patients are doing as we consider surgery with them and after surgery. The electronic, streamlined collection format has been well-received by our patients and data managers because of its intuitive and low-burden implementation. The data has been immediately useful and applicable. It has revealed essential aspects of preoperative concerns and potential areas to prepare patients better for surgery. Post operatively, we are able to hone in on specific patient needs and help those needing additional support after surgery. "Product name" has standardized our data collection and may serve as a model for other patient reported data collection platforms.

Assessing my patients' postoperative recovery and quality of life after surgery used to be a difficult task, requiring frequent phone calls and/or clinic visits for patients. Now I have access to this information remotely from my patients indicating whether they are on or off trajectory during their recovery. Moreover, my patients feel more connected to me and my team as they update us on their status. In addition, my patients appreciate understanding their quality of life trajectory and comparing their postoperative recovery to other patients who have undergone the same operation. This has led to a significant improvement in my patients' postoperative anxiety and has improved their recovery. Once we have accumulated sufficient data, this information will provide insight into what our patients can expect after surgery and help guide important preoperative discussions.

Internal FAQs

- How does this integrate with our existing database framework?

- How does this integrate into the workflow with our data managers?

- How will PRO data be linked to the patients' STS data elements or other database records?

- Do I need to have more data managers to help manage this data?

- If my patients do not participate, will that affect my STS database participation?

- Who is responsible for collecting this data?

- Does the data automatically get sent to STS?

- Will this data collection interfere with the clinical workflow?

- How will we be expected to use these results/data?

- Is there a way to aggregate the data for trend analysis?

- What is considered to be a normal/abnormal response?

- How often will PROs be collected/assessed and when and where will the results be visible to me and the patient?

- Who will be able to see/access these data?

- Is privacy protected? If so, how? (De-identification, etc.)

- How do I add a colleague to my PRO dashboard so they can see the results?

- What PRO instrument will be utilized?

- Which patients will be assessed? All patients or only [patients with] specific diseases?

- What health domains will be assessed?

- Is there a way to ID at-risk patients (depression, not taking meds, lack of support)?

- Does my patient need a smartphone to be able to do this?

- Can a patient complete a PRO by phone or SMS text message?

- How will those patients with low digital health literacy be able to complete the PRO surveys?

- Will surveys be available in other languages?

- Do we need patients to sign a consent [form]?

- How will my patients receive and submit the surveys in a HIPAA compliant manner?

- How do I enroll a new patient?

- How do I send the survey to my patients?

- Can I manually add patients to receive PROs?

- What do I do if one of my patients didn't receive a PRO invite?

- How do I know the patient received or completed the survey?

- Will the patients be able to see their own PRO data?

- How will the PRO data be displayed to the patient?

- How will the PRO surveys be completed by the patients? (website, app, etc)

- How long will this take patients to do?

- Does the system automatically stop sending PROs to a patient after a certain period?

- Can we change the frequency and timing of the PROs for certain patients?

- How can we ensure that all (or the majority) of patients are submitting this data?

- What if a patient would like to have their data deleted?

- What is the cost to implement this at a site? Who is paying for it?

- Who will be the tech support if we are having issues with the technology?

- What is the roll out methodology for a site?

- What are the barriers to successful development of the technology? Successful implementation?

- Do all sites currently participating have to participate in this new process? Can patients or surgeons opt out?

- Why is it important for STS to collect PROs now? What value does it add to the database?

- Will this affect my reviews or star rating?

- Can I change the questions in the PRO?

External FAQs

- What are PROs?

- How are PROs helpful in caring for patients?

- Has the use of PROs been validated in assessment of postoperative surgical patients?

- How do I know my data is secure?

- Do I have to complete the survey?

- Where is my data stored?

- Can I delete my data? If so, how?

- What is the purpose of collecting these data?

- How often do I have to complete this survey?

- Who is collecting this data?

- What's in it for me?

- I would like to change my responses; can I do that?

- The survey is not working: what do I do?

- I noticed this is supported by AWS, do I get a free Prime subscription?

- Will patients see their own PRO data and how will they know how to interpret that information?

- Who sees my replies and data? What do they do with the information?

- How long will it take to do this?

- How do I access the [PRO] surveys?

- Does it cost me any money to do this?

- What if my surgeon gets mad?

- Am I where I should be in my recovery?

- Can my family answer the surveys for me?

- How do I get the results?

- What if I want to do surveys more or less often that what is outlined?

- Can I opt out of submitting them [PROs]?

- How do I sign up?

- What if I lost the link? Can you send me a new one?

- Do I need a smartphone or Internet to complete a PRO survey? What if I don't have one?

- Do other patients get to see my data?

- Do other physicians get to see my data?

- What happens if I missed one?

- Does this help with my recovery?