

REDUCING READMISSIONS AND LENGTH OF STAY BY PROACTIVELY ENGAGING PATIENTS

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twistle 





Advocate
Lutheran General Hospital
Lutheran General Children's Hospital



Advocate is the largest health system in Illinois. The faith based, not-for-profit health system is based in Downers Grove, and offers more than 450 sites of care, with 12 acute-care hospitals, including a children's hospital with two campuses and the state's largest integrated children's network.



EXECUTIVE SUMMARY

Advocate Lutheran General Hospital's Surgical Services launched its Perioperative Surgical Home for colorectal surgical patients in March of 2016. The Perioperative Surgical Home (PSH) is an innovative practice model that was first proposed by the American Society of Anesthesiologists to meet the demands of value-based care, patient satisfaction and reduced costs. Advocate took a unique approach, combining the PSH model with patient-centric technology.

The concept of the PSH is centered around team-based care. Patients are provided with coordinated guidance and support from the moment that a decision is made to have surgery until 30 days after their surgery. The care team focuses on creating the best possible patient experience, leading to improved outcomes. This holistic approach to care and communication facilitates the identification of potential risks, improves the management of the care process by bringing it under one umbrella, and equips patients with the tools that are required to recuperate quickly and without complications. All of this results in shorter hospital stays, reduced complications and lower costs.

There are several unique elements of care associated with the PSH, as implemented at Advocate Lutheran General Hospital. These include a Perioperative Optimization Clinic, standardized order sets and patient clinical pathways. The hospital has also implemented Twistle to manage interactions between patients and their care teams. Twistle is a digital platform which engages with patients automatically before and after surgeries, procedures and visits on behalf of the care team. Patients receive personalized messages, assessments, and other forms of media from the care team according to pre-defined pathways. When Twistle indicates that the patient is off track, the care team is alerted and can seamlessly intervene using the familiar paradigm of mobile messaging. Twistle facilitates rich content that can be customized, so Advocate Lutheran General Hospital produced several patient educational videos that were sent to the PSH patients via Twistle.

Preliminary results show significant reductions in average length of stay and readmissions. Other exceptional outcomes—including more informed patient care and engagement, better patient compliance among others—were also noted.

131

RELEVANT
PROCEDURES

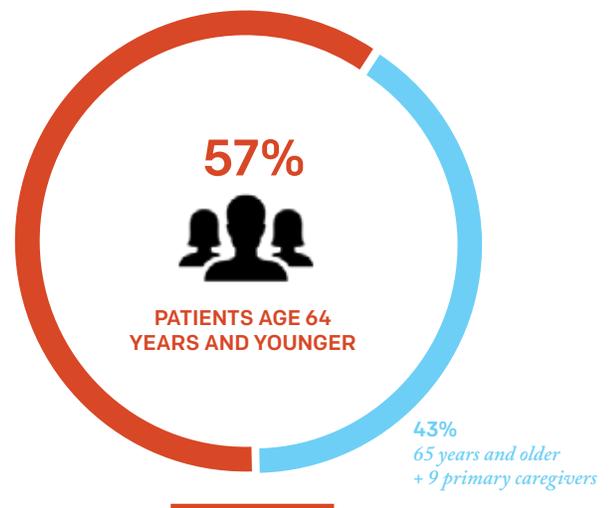
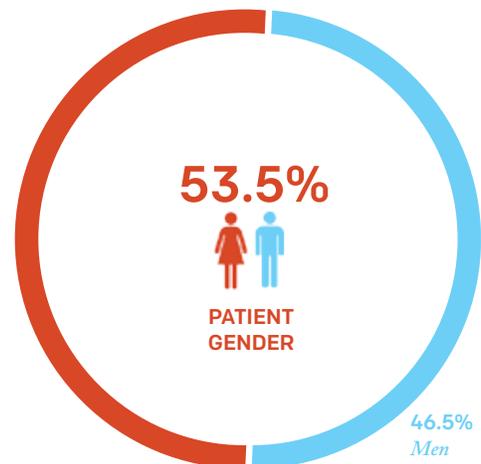
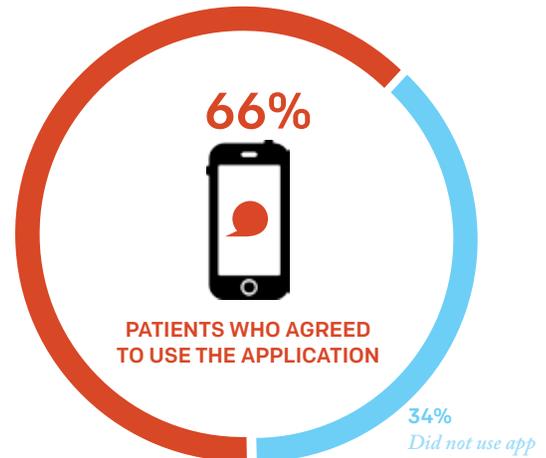
THE PROBLEM

As healthcare continues to change and healthcare reform gains momentum, providers across the continuum of care are facing increasing pressure to demonstrate that they can deliver cost-effective, high quality patient care, while exceeding patient expectations. With over 51.4 million inpatient procedures performed in the U.S. each year, surgical services represent a major component of healthcare expenditures and a sizable opportunity to reduce costs and improve outcomes. The implementation of the PSH model has been designed to drive meaningful and lasting changes in perioperative costs, outcomes, and experiences for patients and payers nationwide. The PSH strives to achieve the triple aim of better patient experience, better population health, and reduced expenditures for all patients undergoing surgery and invasive procedures. As a patient-centered, physician-led, interdisciplinary and team-based system, the PSH coordinates care from pre-procedure assessment through the acute care episode, recovery, and post-acute care. The goal is for each perioperative patient to receive the right care at the right place and at the right time, with better patient satisfaction, fewer complications, and decreased costs.

TARGET PATIENT POPULATION FOR STUDY

The initial PSH initiative focused on patients undergoing Laparoscopic Right and Left Hemicolectomies, Laparoscopic Low Anterior Resections and Laparoscopic Colo-Anal Pull Thru Procedures, as well as Ileostomy Closure. Given the risk of readmissions and high length of stay, these procedures offered the best opportunity to positively impact the patient experience and outcomes.

Since March 3, 2016, when the program launched, there have been 131 relevant procedures. Of those, 66% of patients, a total of 86, agreed to use the Twistle application.



 Twistle was introduced during the patient's visit to the Perioperative Optimization Clinic. When necessary, patients received assistance in downloading the app onto their smart phone.

Successful implementation of the PSH meant addressing the following:

- ↘ Providing cost savings and improved quality by coordinating care before, during, and after surgery.
- ↘ Improving the patient experience by helping the patient share in decisions and navigate successfully through the complex perioperative care process.
- ↘ Encouraging cooperation across specialty lines.
- ↘ Encouraging cost-efficient use of providers and support staff at all levels.
- ↘ Working beyond the operating room by emphasizing prehabilitation: optimizing the patient's condition before surgery.
- ↘ Working to reduce complications and readmissions by following up on the patient's progress during post-acute care—whether the patient is at home, in rehabilitation, or in a skilled nursing facility.



Patient-centric technology was key to achieving exceptional outcomes

As a result of the Perioperative Surgical Home project and the Twistle platform, there has been a 35% decrease in the average length-of-stay (ALOS) for patients. In 2014, ALOS was 5.12 days; and in the March-June 2016 period ALOS came down to 3.125.

The readmissions trend has also been reversed, with the achievement of an all-time low readmissions rate of 5%, a 69% drop over the previous year's rate of 14.5%.

- ↳ Reminders pre-and post-surgery have significantly improved patient compliance
- ↳ Reduced surgical cancellations, due to patient non-compliance
- ↳ Education provided via app has resulted in “more informed” patients
- ↳ Encouraging constant communication has resulted in the quick identification of care issues that impact outcomes; for example, patients have utilized the ability to take pictures of wounds post-surgery—allowing caregivers to assess possible setbacks via the app
- ↳ Significant decrease in the volume of calls to surgeons’ offices to ask questions before and after surgery

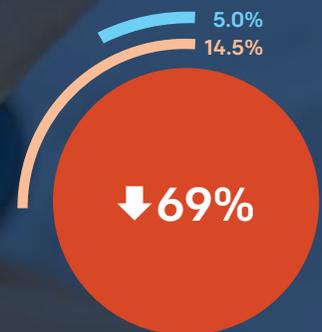
ALOS

- 2016
- 2014



READMISSIONS

- 2016
- 2015



PATIENT SATISFACTION

Patient satisfaction has also increased, as a consequence of implementing the PSH with supporting technology from Twistle. The following patient questions were asked of the patients 30 days after discharge:

“My appointment in the Perioperative Optimization Clinic enabled me to make better decisions about my care.”

“Twistle messages helped me before and after surgery with my recovery.”

STRONGLY DISAGREE

STRONGLY AGREE



NEXT STEPS

Because of the positive impact of effective technology on colorectal surgery outcomes, it will soon be implemented to the spine surgery service line, and there are developing plans for the orthopedic joint surgeons shortly afterwards. The hospital also plans to roll this out to selected colonoscopy patients and then to all direct access colonoscopy patients in Digestive Health in November.

We know now that post-acute care is a major driver of cost in the American healthcare system. As average length of stay (ALOS) has markedly decreased, Medicare spending on post-acute care has more than doubled since 2001. This creates a major opportunity for the Pre-Surgical clinic to widen its scope.

The potential advantage to hospitals and payers will be reduction in readmissions, many of which are for medical reasons rather than surgical. In addition we can expect a reduction in costly emergency room visits after the acute episode of care.

Additional value to payers will come from a reduction in the need for skilled nursing facility (SNF) placement after the acute episode of care and/or decreasing the ALOS in the SNF. Discharge to the patient's own home, even with home health assistance, saves an estimated \$15,000 in the first 90 days compared to SNF care.

Educating the patients and families is a very large component in a successful Perioperative Surgical Home/Enhanced Recovery After Surgery (PSH/ERAS) program. There are many research articles that have demonstrated the importance of an education plan that will help patients to not only understand their entire surgical experience but also set their goals and expectations for a faster recovery.

ADVOCATE LUTHERAN GENERAL CASE STUDY TEAM

Flo Kiokemeister, RN, BSN, MS
Project Manager - PSH/ERAS/RRP Project

David Young
Anesthesiologist

Slawomir Marecik, MD, FACS, FASCRS
Board certified in Colon and Rectal Surgery, and General Surgery

John Park, MD, FACS, FASCRS
*Chief, Division of Colon and Rectal Surgery
Board certified in Colon and Rectal Surgery, and General Surgery*

Mary Kay Bissing
Anesthesiologist

Cindy Mahal-Van Brenk
VP Surgical Services ACMC/ALG

RESOURCES

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Twistle is a healthcare communications platform that allows for easily customized workflows through the use of surveillance, secure messaging, automation and integration. Twistle promotes enhanced productivity with the ultimate goal of creating better outcomes for patients. It reduces morbidity and readmission by closely monitoring care paths, engaging the care team only when necessary.



1617 Boylston Ave Seattle, WA 98122 | 3538 Anderson Ave. SE Albuquerque, NM 87106

www.twistle.com

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