

## PROVIDENCE

## CASE STUDY

## Simplifying recovery from total joint replacement with digital care

44%

DECREASE  
in hospital  
readmissions

15%

DECREASE  
in length of  
stay

92%

PATIENTS  
found Twistle  
helpful\*

8%

INCREASE  
in patients  
discharged to  
home (vs. SNF)

## CLINICAL PRIORITY

After receiving consistent feedback from patients that they had inadequate expectations for recovery after joint surgeries, Providence's Southern California region initiated an education program. The purpose was to ensure patients understood the recovery process, what to anticipate regarding pain after joint surgeries, and how to manage it. They also wanted to reduce length of stay as well as 30-day readmissions to improve performance in their value-based bundled payment model.

After initiating an in-person patient education program, they saw good improvements both for the patient experience as well as post-operative recovery metrics, but the initiative was labor intensive and inefficient for staff to manage.

Providence then evaluated digital platforms that could automate patient support throughout the joint replacement experience.

## APPROACH

Providence collaborated with Twistle by Health Catalyst to build digital care plans for total hip replacement (THR) and total knee replacement (TKR) surgeries. These care plans were designed to automatically deliver the right information to patients at the right time including education, reminders, surveys, checklists, and messages from their care team. The Total Joint Replacement Pathway supports:

- Pre-operative preparation
- Day of surgery guidance
- Post-operative recovery at home

Patients receive information about how to prepare for surgery, including a video of their surgeon delivering a message of reassurance and comfort. Messages after the procedure provide step by step guidance to help patients adhere to their care plan. These timely check-ins also give providers assurance that the patient will be supported at home and can avoid being discharged to a skilled nursing facility.

*"This pilot was so successful in improving the patient experience and performance in our bundled payment models, we are expanding the Twistle pathways throughout Southern California."*

Tom Burton, PT, Director of Operations Orthopedic and Neuroscience Clinical Institutes  
PROVIDENCE

\* Based on a patient satisfaction survey deployed by Twistle at the conclusion of the treatment pathway

# PROVIDENCE

*“Loved receiving these text messages. They answered a lot of the questions I had written down for the doctor.”*

*“I liked being able to get timely reminders, ask questions, and communicate about how healing is going.”*

Patients Enrolled in Twistle  
SATISFACTION SURVEY

## PILOT APPROACH

A cohort of patients undergoing a THR or TKR were invited to use Twistle and 83% of those invited adopted the program. Approximately two-thirds of the patients received a TKR and one-third a THR.

The study compared outcome and cost data for 388 patients who used Twistle, with 751 patients who did not use Twistle.

## RESULTS\*

- The Twistle cohort experienced a 44% reduction in hospital readmissions and a reduction in surgical complications
- Length of stay was reduced by 15%
  - » Patients were better prepared to recover at home
  - » Physicians felt reassured that patients could be closely monitored at home and have easy access to the care team via Twistle
- The number of inpatients being discharged after one day doubled to around 40%, and those staying more than two days was rare
- The number of patients discharged to a skilled nursing facility (SNF) also decreased as a result of closer in-home monitoring, which reduced the overall cost of care
- Patient satisfaction and online ratings improved, as 92% found Twistle helpful and 80% would recommend Twistle
- The platform increased the amount of patient-reported outcomes collection

\* Based on analysis conducted in 2020 by the Orthopedic and Neuroscience Clinical Institutes and 2020 data on patient engagement provided by Twistle



## ABOUT PROVIDENCE

Providence is a national, not-for-profit Catholic health system comprising a diverse family of organizations and driven by a belief that health is a human right. With 51 hospitals, 1,085 physician clinics, senior services, supportive housing and many other health and educational services, the health system and its partners employ more than 119,000 caregivers serving communities across seven states – Alaska, California, Montana, New Mexico, Oregon, Texas, and Washington, with system offices in Renton, WA and Irvine, CA. Learn about our vision of health for a better world at [Providence.org](https://www.providence.org).

## ABOUT TWISTLE BY HEALTH CATALYST

Twistle automates patient-centered, HIPAA-compliant communication between care teams and patients to transform the patient experience, drive better outcomes, and reduce costs. Twistle offers “turn-by-turn” guidance to patients as they navigate care journeys before, during, and after a care episode. Patients are engaged in their own care and follow best practices, communicate as needed with their care teams, and realize measurably better outcomes. Twistle integrates sophisticated automation with multi-channel communication, engaging patients through secure text messaging, interactive voice response, patient portals, or the health system’s digital applications.