



# UNIVERSITY OF ILLINOIS HOSPITAL AND CLINICS

## Service Line Optimization for an Underserved Orthopedic Population

CHICAGO

Team Members: P. Gorski

*Quality, Winner*

### OVERVIEW

University of Illinois (UI) Health in 2015 launched a multidisciplinary joint replacement quality improvement program to improve care for an underserved and at-risk patient population.

### PROBLEM IDENTIFIED

Approximately half of UI Health's orthopedic patients are Medicaid beneficiaries, charity care recipients, wards of the state, and other underinsured populations. These patients face increased risk for complications and poor outcomes due to social determinants of health that include housing and food insecurity, lack of transportation and social support, and high poverty and unemployment levels. UI Health's JRQI program aims to mitigate the social and human costs of disability by helping patients restore function, return to employment, reduce pain and reliance on pain medication, and improve engagement with their families and communities.

### ENGAGEMENT

The orthopedic department head in the University of Illinois at Chicago College of Medicine, the joint replacement physician team, and hospital leadership collaborated to lead this initiative. Front-line staff developed, lead, and run the pre-op education class. Patient feedback has helped drive improvements, including medication education, pain management, and improved access to care.

### METHODS

UI Health took eight interventions:

1. requiring joint replacement patients to attend a pre-operative education class about venous thromboembolism (VTE) prevention, the importance of early mobility, and multimodal pain management;
2. developing a preoperative checklist to mitigate risks, including through nutritionist referrals, smoking cessation, and drug addiction counseling;
3. standardizing implants used;
4. providing multimodal pain management by an interdisciplinary team to support earlier, more effective mobility;
5. requiring patients to sit at the edge of the bed within two to six hours of surgery and participate in ambulation and exercise multiple times daily;
6. expanding occupational and physical therapy services during evening hours;
7. enhancing medication labeling to improve patient understanding; and
8. conducting root cause analysis of VTEs, surgical site infections, and extended lengths of stay.

### RESULTS AND DATA

Since starting the program:

- patient preoperative education increased from 10 to 100 percent;
- patient satisfaction related to physician communication, pain management, and discharge information increased by more than 80 percent;
- VTE rates decreased from 32.6 to zero percent;
- the observed/expected length of stay index decreased from 1.33 to 1.01;
- 232 bed days were saved;
- POD 1 discharges home increased from zero to six percent;
- average implant costs decreased 40 percent;
- access to outpatient physical therapy visits within five to seven days of surgery increased from less than 20 to 100 percent.

