

## Introduction

Over 1.1 million people yearly undergo total hip, knee, and shoulder arthroplasty surgeries in the United States. Cedars-Sinai Medical Center performs elective joint surgery on over 2,000 patients annually. Volume surges in the hospital delay post-operative arthroplasty patients' transfers to an inpatient room, resulting in delayed mobilization. A delay in mobilization prolongs recovery, increases the risk of complications, and can increase inpatient stays.

## Objectives

- Increase the number of same-day and 23:59 hours or less discharges amongst post-operative primary total joint replacement patients.
- Reduce overall length-of-stay for total hip and knee arthroplasty patients by facilitating earlier discharges.
- Ensure patient safety throughout all perioperative stages, and discharge.
- Set patient expectations for a same day discharge through pre-operative education and in-hospital interactions.

## Project Questions

- Will the implementation of an Outpatient Stay Unit (OSU) be successful in facilitating early discharges amongst primary total joint arthroplasty patients?
- Will patients mobilize within three hours of recovery with the assistance of perioperative staff and physical therapy?
- Will the patients meet discharge criteria within 23:59 hours?

## Potential Project Barriers

- Data Collection
  - March 2022-May 2022: "5-hours post-surgery" nursing note does not contain mobilization data
  - May 2022 – Updated "5-hours post-surgery" note to "3-hours post-surgery" nursing note
  - June 2022 – Began tracking mobilization in nursing note
- Potential Patient Barriers to Mobilization
  - Hypotension and dizziness
  - Falls
  - Post-op nausea and vomiting
  - Urinary retention
  - Uncontrollable pain
- Knowledge Deficit
  - PACU nurses required training on the optimized care and management of total joint arthroplasty patients.



### Outpatient Stay Unit

Advanced Health Sciences Pavilion (AHSP), 5<sup>th</sup> Floor

127 S San Vicente Blvd  
Los Angeles, CA 90048

With advancements in surgical technique and improved anesthesia and pain management, patients are able to go home sooner and may not need to stay overnight in the main hospital. We have specially designed the new **Outpatient Stay Unit (OSU)** for patients who need an extended recovery after surgery but are able to go home the same day or the day after their surgery.

#### Benefits of recovering in the OSU:

- State-of-the-art facility
- Stay in the ambulatory care center and avoid admission to the main hospital
- Specialized nursing care and therapy to expedite your recovery
- Faster discharge home



Advanced Health Sciences Pavilion (AHSP)

Outpatient Stay Unit – 5<sup>th</sup> Floor AHSP



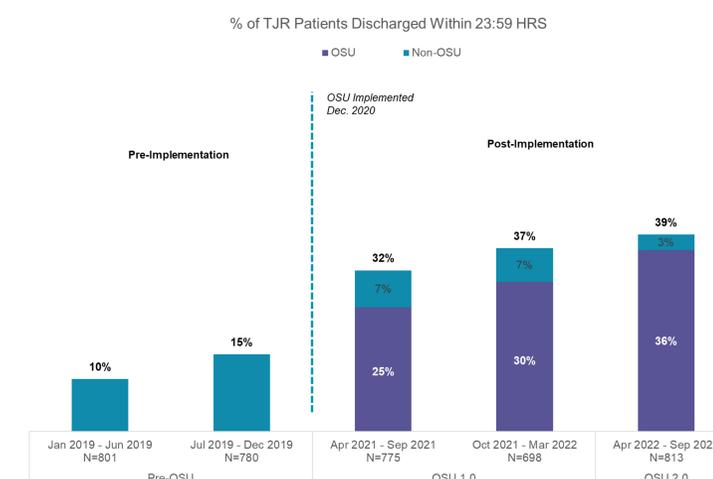
## Implementation

- Develop an interdisciplinary quality improvement project to reduce patient length-of-stay amongst total joint replacement patients, inclusive of hip, knee, and shoulder arthroplasties.
- A 14-bed area in the PreOp/PACU areas was chosen for the OSU – home to the Cedars-Sinai's Center for Outpatient Hip & Knee Surgery.
- Establish a project team consisting of a surgeon, orthopaedic joint navigators, PACU nursing, therapists, and a project manager.
- Develop inclusion criteria for OSU appropriate patients.
- Define key performance metrics.
- Develop patient education handouts and unit posters
- Train PACU nursing staff on best-practice orthopedic care principles.
- Develop nursing notes to document patient recovery milestones.
- The OSU opens on December 7, 2020.
- Weekly interdisciplinary team meetings are held to review project implementation.
- Data milestones are reviewed at team meetings to inform quality improvement interventions.
- PACU nurses receive ongoing training by Nurse Navigators, Registered Nurses and Physical Therapists.
- Pre-operative patient and caregiver education provided by surgeons and orthopaedic nurse navigators.
- Patients recovering in OSU encouraged to ambulate within 3 hours post-surgery with the goal to safely discharge home within 23:59 hours.



## Results

- Same day and 23:59 hours discharge rates increased and have continued to improve during the OSU post-implementation time periods.
  - The discharge rate of TJR patients within 23:59 hours improved by 2.8 times the pre-implementation rate.
  - Continuous improvement in reduced length-of-stay has been achieved since the OSU inception
- POD1 (day after surgery) discharges increased in the OSU by almost twice the pre-implementation rate.
  - Average Pre-implementation POD1 discharge rate: 31%
  - Average Post-implementation POD1 discharge rate: 59%
- The OSU has provided additional bed capacity to facilitate CSMC patient volume demand
  - Beginning April 2022, all orthopaedic TJR patients recovered in the OSU and only patients requiring extended hospital management were transferred to inpatient units.
  - Since the OSU inception, 46% (n=1054) of elective Total Joint Replacement (TJR) cases were discharged from the OSU.
- Mobilization data is currently insufficient to evaluate due to changes in data documentation and robustness.
  - June – Sept 2022
    - Total of patients with a 3-hour post surgery note: 307
    - Total # of patients who ambulated at 3-hour mark: 210 (68%)



## Conclusions

The Outpatient Stay Unit displayed exemplary professional practice and was successful in decreasing overall length of stay amongst primary total joint patients. It has decompressed inpatient units within the hospital, facilitated early mobility, and increased early home discharges. Additional benefits are that it has broadened the skill sets of the perioperative nursing staff that were assigned to the OSU.

## Acknowledgements

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## References

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