

Promoting Patient-Centered Care: A Protocol to Increasing Hospital Capacity



Perioperative Services | Cedars-Sinai Medical Center, Los Angeles

Primary Investigators: Rusela DeSilva, DNP, RN, PHN, NEA-BC, CPAN, CAPA; Lillyann Rowe, MSN, RN, PHN, CNML, CPAN, CCRN; Daniel Miranda, BSN, RN, CPAN, CAPA, CMSRN

Co-Investigators: Paulina Andujo, BSN, RN, ONC; Kathleen Breda, MSN, BBA, APN, AGAVNP-BC, GRN, ONP-C; Mayra Lopez, MSW, MPH; Dr. Sean Rajaei, MD, MS; Naomi Tashman, BSN, RN, ONC, WOCN

Introduction

Advancements in surgical and anesthesia techniques enable total joint arthroplasty (TJA) surgery to be performed on an outpatient basis, reducing hospital length-of-stay (LOS) and healthcare costs. However, certain perioperative factors contribute to postoperative complications, leading to prolonged LOS with significant implications on capacity, further straining already burdened healthcare resources (Chua et al., 2020). To address the financial burden and improve patient outcomes, patient-centered care that includes early ambulation and rapid recovery protocols has been implemented and has shown promising results in improving functional mobility and LOS, addressing the capacity constraints and improving patient flow.

Problem Identification

The facility lacks a standardized protocol to mobilize patients in the early recovery phase. TJA patients remain in bed for an extended period of time, failing to ambulate early for potential early discharge. This contributes to extended LOS which is further complicated by an increasing hospital census, posing concerns on potential treatment delays.

QI Question

Does patient-centered care consisting of early ambulation and rapid recovery protocols for TJA patients reduce unnecessary inpatient surgical admissions thereby increasing hospital capacity?

SMART Aim

- To provide patient-centered care to TJA patients from April 2022 to April 2023 and prevent unnecessary surgical admissions to inpatient, licensed beds
- To contribute to increased hospital capacity

Discussion/Conclusions/Implications

The Outpatient Stay Unit was successful in its goal of providing patient-centered care for TJA patients, assisting the organization with increased overall capacity. They were also able to decrease length-of-stay with the opening of this unit by demonstrating the below:

- Average number of hours after PACU until discharge in 2019: 59 hours
- Average number of hours after PACU until discharge from April 2022-April 2023: 44 hours

Outpatient Stay Unit

Advanced Health Sciences Pavilion (AHSP), 5th 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 – 5th Floor AHSP



Methods/Implementation

The Outpatient Stay Unit (OSU) was opened on December 7, 2020. This unit functions as a hybrid post-anesthesia care unit (PACU), providing Phase I perianesthesia care until discharge or transfer to an inpatient unit. Nursing staff (both registered nurses and clinical partners) in the OSU are all trained in providing preoperative, postoperative, and post-surgical care. The unit was prepared to care for the majority of TJA patients, regardless of patient class. Not only did OSU provide care for outpatient TJA patients, but the inpatient TJA patients were also transferred to OSU directly from the operating room.

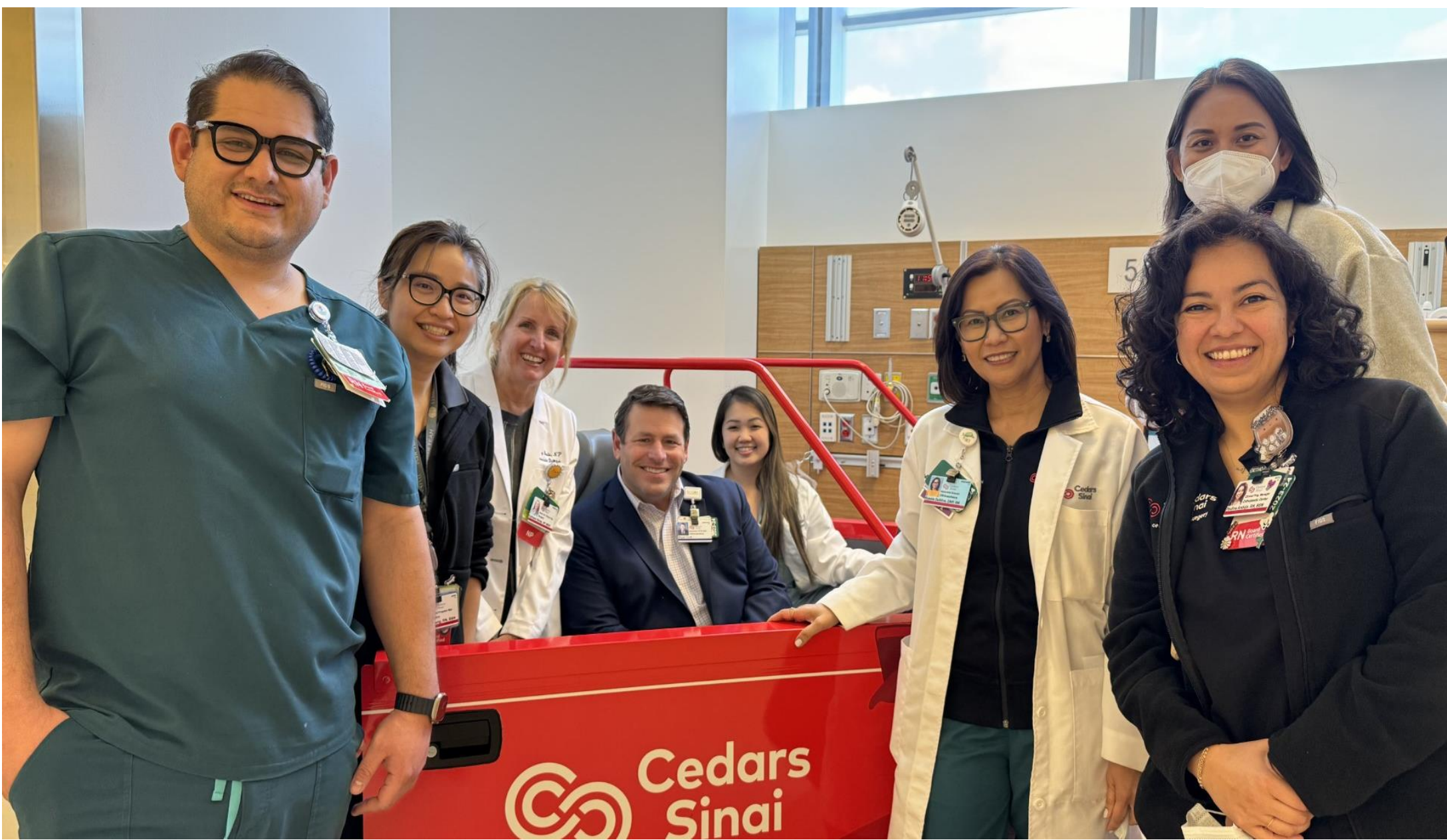
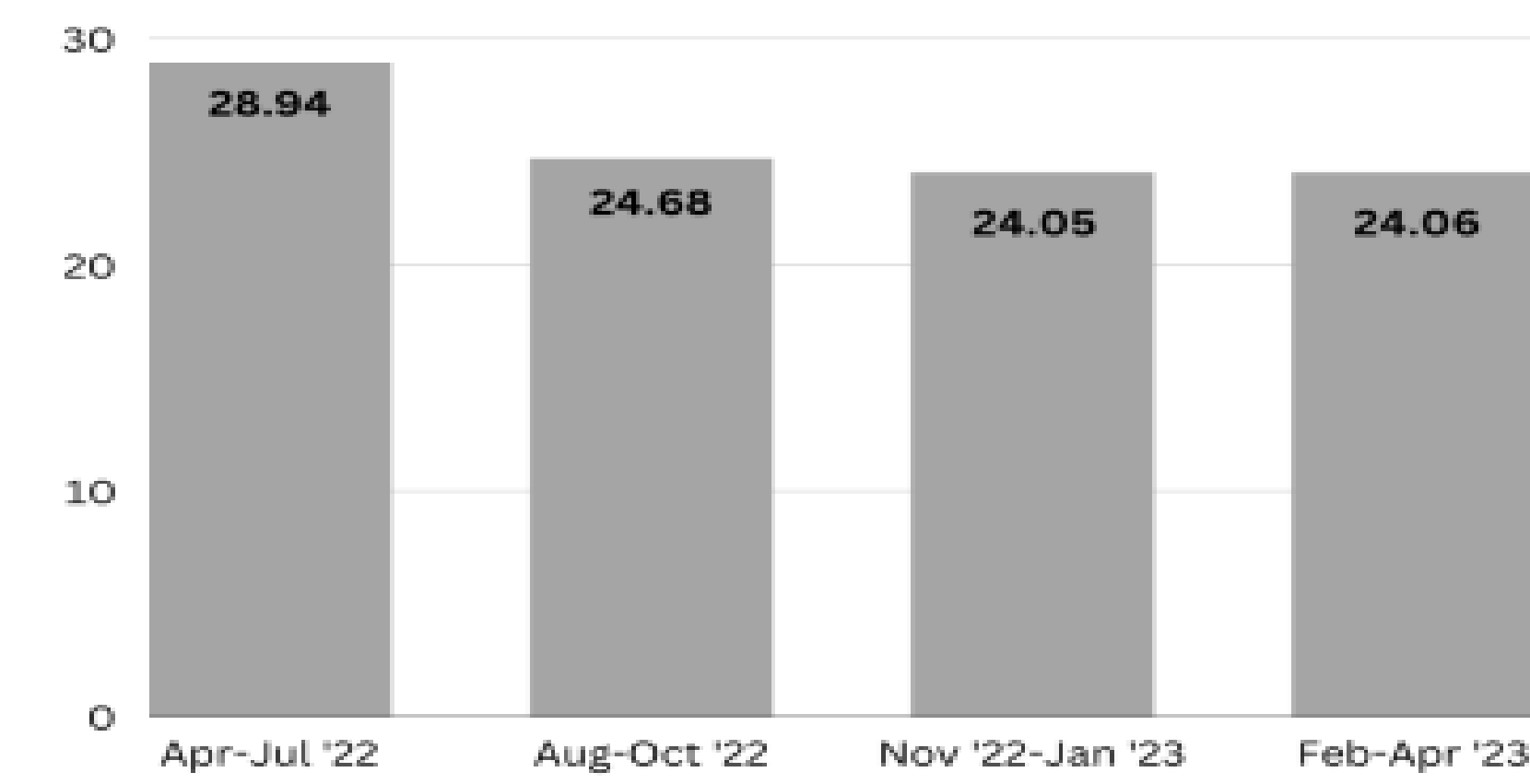
This new workflow allowed:

- Patients to receive standardized care protocols
- Focused staff roles
- Realistic patient expectations to be defined and set

Through a partnership with the Clinical Joint Surgery Managers, Lower Extremity Joint Replacement Team, and the Anesthesiologists, the OSU has been successful in providing the care necessary to safely transition the TJA patients from the perianesthesia area to home or an inpatient bed.

Source: CSMC Finance Decision Department
OSU's implementation and workflow was successful in decreasing Obs hours from:

- April-July 2022: 28.94 hours
- August-October 2022: 24.68 hours
- November 2022-April 2023: maintained an average of 24 hours



Results

Providing patient-centered care to TJA patients in our perioperative areas was successful in preventing unnecessary surgical admissions to the inpatient areas.

Source: CSMC Finance Decision Department

From April 2022 – April 2023, the Outpatient Stay Unit (OSU) has prevented 27,000 hours from occupying licensed beds.

- 27,000 hours = 1,100+ EPD/bed days
- bed days are estimated to bring CSMC about \$8.2M in net revenue

	OSU Volume Method
Per Case Hours Saved	14.64
Total Hours Saved	27,000
Total Days Saved	1,125
Net Patient Revenue (NPR) Per Day	\$ 7,247
Total Capacity Value	\$ 8,152,875

Acknowledgements

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- Acute therapy (Physical Therapy and Occupational Therapy), Anesthesia team, Apguard Medical
- Case management (inpatient and ISP), Capacity management, Central transport services (CTS), Finance
- Environmental services (EVS), inpatient orthopedic staff (7-North), LEJR Team, Nutrition, PACU staff, Pharmacy

References

Chua, H. (2020). Implementing early mobilisation after knee or hip arthroplasty to reduce length of stay: A quality improvement study with embedded qualitative component. *BMC Musculoskelet Disord* **21**, 765. <https://doi.org/10.1186/s12891-020-03780-7>