Same Day Recovery Program (SDRP) for Total Hip and Total Knee Arthroplasty Patients in a Hospital Setting

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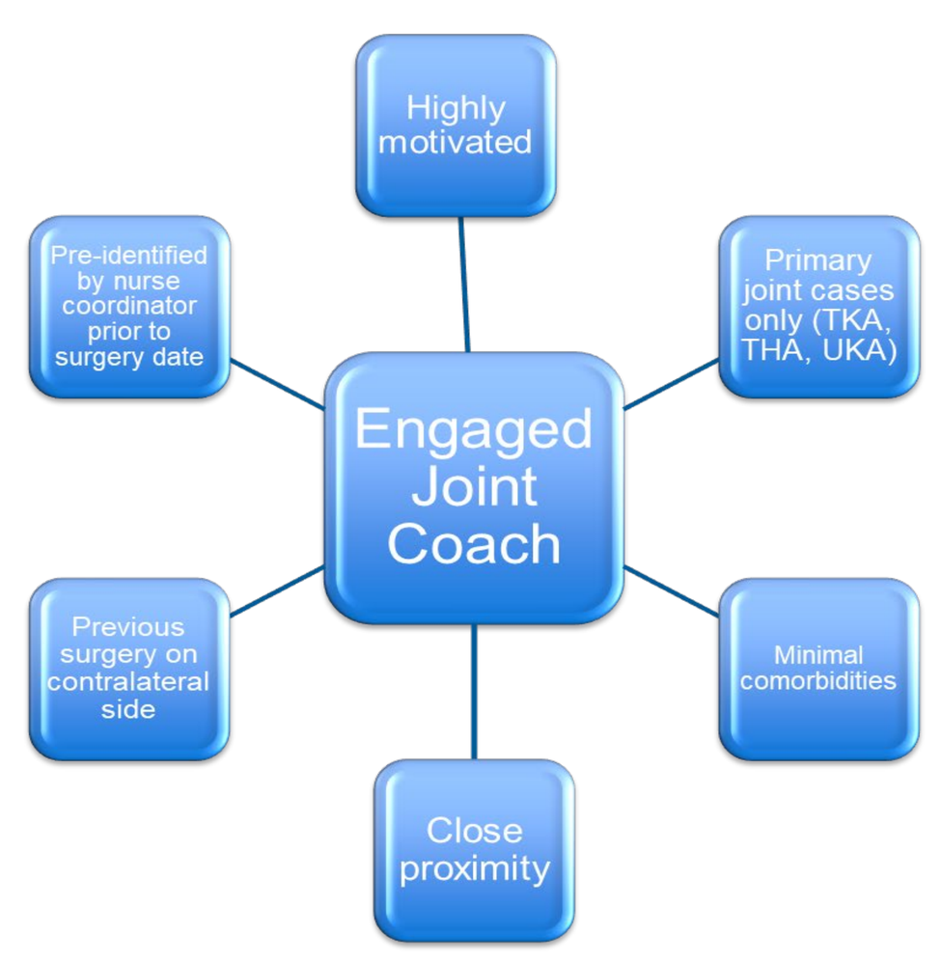
Background/Purpose

Healthcare reforms in the U.S. relating to total joint arthroplasty and a push to decrease costs resulted in Barnes Jewish West County Hospital, in partnership with academic, research-based Washington University School of Medicine surgeons, to explore reducing length of stay (LOS) while continuing to minimize risk and provide quality care.

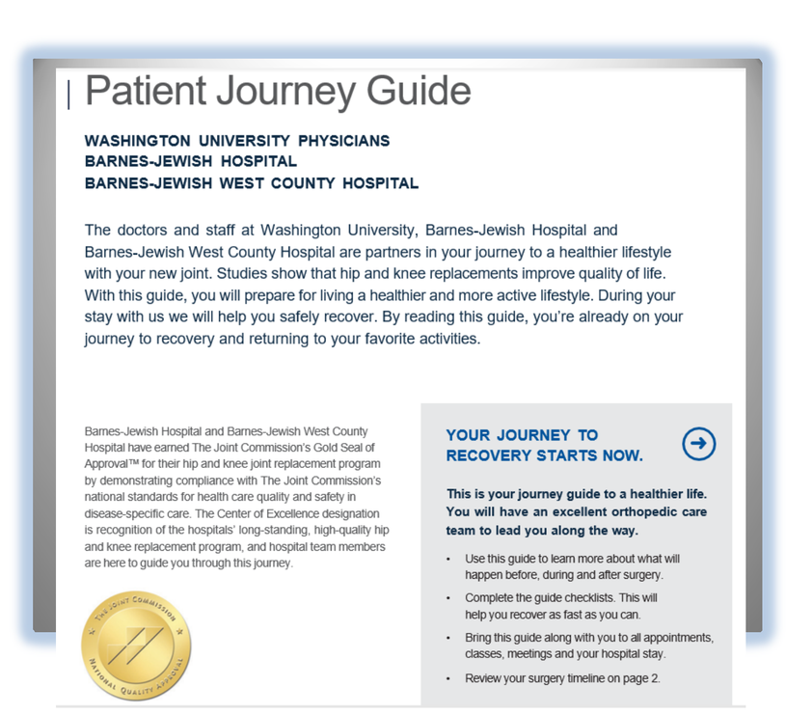
Phase 1: We researched the impact of incremental protocol changes on total joint arthroplasty length of stay (LOS). Using evidence-based studies and best practice guidelines, we developed protocols and processes to safely decrease the LOS in this patient population, allowing for a short overnight stay and earlier discharge without increased readmissions.

Phase 2: This success led us in 2018 to develop and implement our Same Day Recover Program (SDRP) in which select patients are discharged the same day as their surgery from the nursing unit/floor.

Phase 3: With the COVID pandemic in 2020, we were faced with the challenge of room availability on the nursing unit/floor. Further protocol changes enabled us to successfully discharge select patients directly from the PACU, bypassing the transfer to the nursing unit/floor.



Intervention highlights included preoperative optimization with a focus on patient selection criteria, patient education, joint class attendance, patient journey guide, and an engaged joint coach (family member/friend); achieving earlier sensory/motor control to participate in earlier ambulation; reduction of postoperative hypovolemia; improved pain control; and improved communication between office staff, hospital staff, and the patient.



Criteria to be met prior to discharge home post-op day 0:

- Patient is hemodynamically stable
- Able to participate in and pass therapy evaluation
- Able to void
- Pain is controlled

Preparation and Planning: To create a safe and efficient SDRP program with excellent outcomes, we completed the following work:

Assembled a Multidisciplinary Team

It takes an entire team to safely discharge total joint patients home the same day of their surgery. Our multidisciplinary team consists of surgeons, fellows, residents, anesthesia, clinic nurse coordinators, nurse practitioners, charge nurses, floor nurses, physical therapy (PT), occupational therapy (OT), case management, perioperative staff, home health, and pharmacy.

Created Standardized Clinical Pathways and Protocols

•Researched evidence-based practice
•Minimized variations among surgeons including but not limited to:

- Patient selection criteria
- Decolonization
- Patient education
- Multimodal pain management
- Anesthesia type (spinal)
- Discharge instructions
- Patient evaluation
- Pre-op risk stratification
- Patient support (joint coach)
- DVT prophylaxis
- PT/OT evaluations
- Discharge disposition (Home with Home Health)

Developed a Robust Criteria to Assess SDRP Patient Candidacy

- Surgeons must assess all patients
- Patients must be highly motivated
- Surgery must be a primary total hip or total knee replacement
- Patient must have minimal comorbidities
- Patient must be assessed 2-4 weeks prior to surgery in our Center for Preoperative Assessment and Planning (CPAP) department for appropriateness for surgery
- At the time surgery is scheduled the patient must designate an engaged and supportive joint coach as well as sign a hip and knee enrollment agreement attesting to the joint coach's willingness and ability to assist the patient before, during, and after surgery

Developed a Patient Journey Guide

- Assists patients through the continuum of care
- Contents reflect education provided during joint class which is mandatory to attend for the patient and the joint coach

Established Communication Standard Work Between the Office and Hospital

- The office notifies hospital stakeholders of which patients are designated for same day discharge.
- Pre-identifying SDRP patients ensures managers create a proper staffing plan for nursing, PT, and OT

Modified the Surgery Schedule

- SDRP patients are the first four patients of the day (based on surgeons operating out of two rooms)
- The goal of earlier scheduling times is for the patient to receive the required care and be discharged at an appropriate time of day.

Developed Multi-modal Pain Management

- Spinals for TKA & THA
- Blocks for TKA
- Intraoperative local injection (Bupivacaine and Toradol)
- Celebrex day before surgery; Acetaminophen in pre-op; Toradol IV at skin closure

Developed Early Mobilization Goals With Physical Therapy

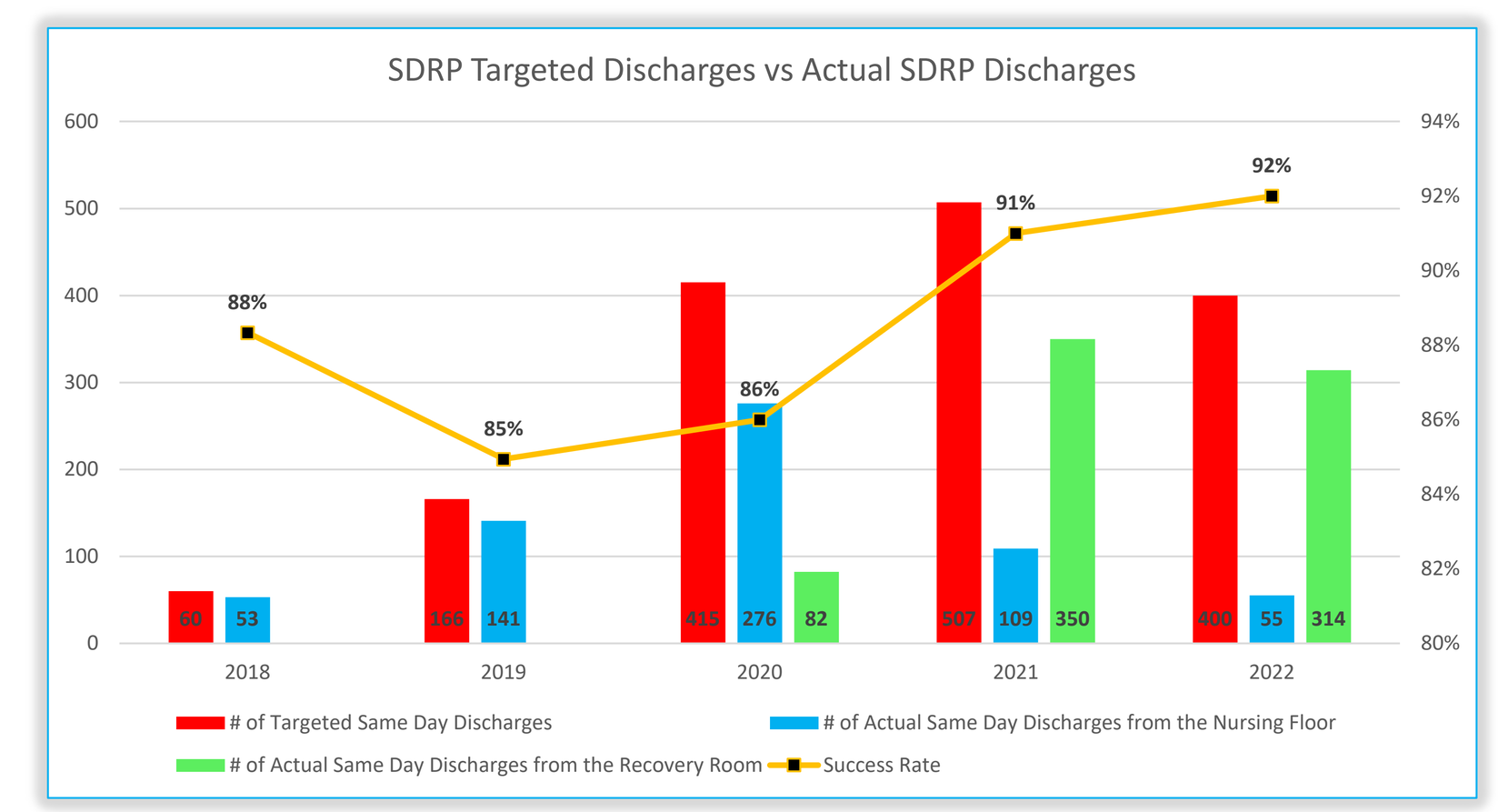
- Goal set for patient to be out of bed within 2 hours of arriving to nursing floor

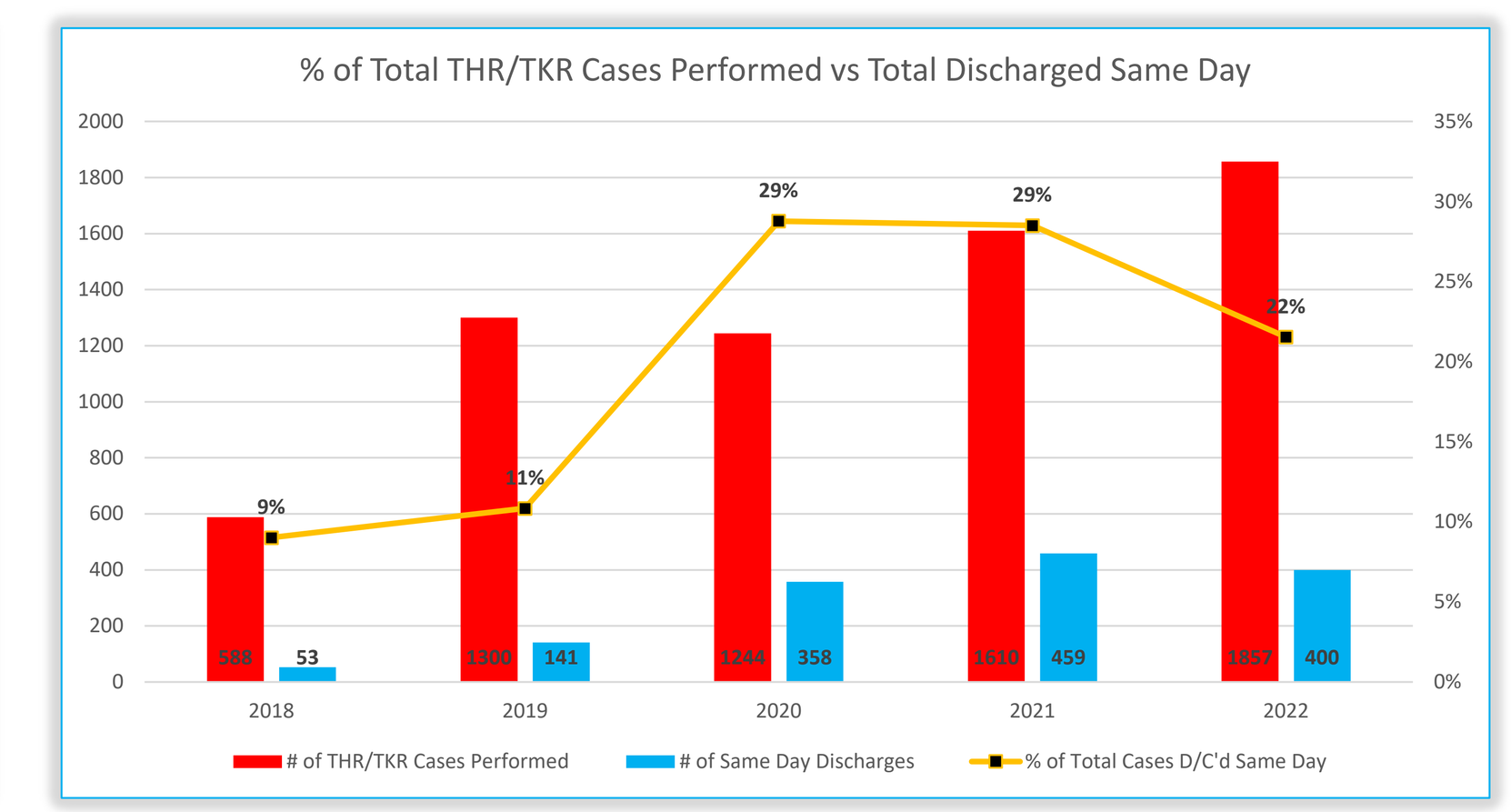
Outcomes of Initial Implementation – Same Day Discharge From Nursing Floor

Our initial pathways and protocols for same day discharges included the patient being recovered in the PACU followed by transfer to the orthopedic nursing unit for discharge preparation. In 2018, we slowly implemented the SDRP with patients discharged same day from the nursing floor. Over the 3 year timeframe for 2018, 2019, and 2020 we were able to increase our SDRP targeted discharges, ultimately resulting in a decrease in total length of stay without adversely affecting readmissions and infections. We identified the following barriers to discharging same day: difficulty voiding after foley catheter removal, spinal resolution due to longer acting spinal medication usage, family discomfort with patient discharge, and unforeseen medical issues (n/v, hypotension, etc.).

Outcomes of Implementation – Same Day Discharge From PACU

While successful, the nursing unit discharge required extra patient movement throughout the hospital, multiple nursing handoffs, and a break in the continuity of care as the patient passes from one set of nursing staff (PACU) to another (orthopedic nursing unit). In August 2020, to enhance the patient experience and continuity of care, we redesigned our primary discharge area to include PACU. While the preparation, planning, and assessments remained essentially the same, focus shifted to PACU staffing, PACU bay space availability/throughput, and PT/OT evaluations occurring in PACU prior to discharge. Thus far this has proven to be successful with only a select few of SDRP patients having to be transferred to the nursing unit for discharge.





Implications for Perioperative Nursing

In summary, it takes a multidisciplinary team working together to implement a successful SDRP. Pre-op assessment and education is vital to ensuring patients are prepared to safely discharge home the same day as their total joint arthroplasty. Policies, protocols, and pathways based on evidence-based guidelines must be streamlined and followed by all team members. Nurses focus on continuity in patient and joint coach education for pain management, increasing mobility, wound care, DVT prophylaxis, and medications to support a successful discharge to home, resuming of activities of daily living, and infection prevention.

References:

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