



Orthopedic Surgery Update 2020

Same-Day Total Hip and Knee Replacement How and Why?

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November 13, 2020

Faculty Disclosure



The planners and presenters do not have any financial arrangements or affiliations with any commercial entities whose products, research or services may be discussed in this presentation.



Pre-Operative Phase



- Patient Optimization – Safety first!

 - Hard Stops:
 - Diabetes – A1C > 7.5
 - BMI > 40 (Ideally less than 35)
 - Smoking 4 weeks pre- / post-op
 - Hg < 10.0
 - Albumin < 3.0
 - Patient Education
 - Handbooks
 - Pre-Surgical Office Discussion
 - Consistent Messaging – by ALL parties including PMDs doing clearances, etc is essential

Pre-Operative Phase—Patient Optimization—

Safety FIRST

- Hard Stops
 - Diabetes – A1C > 7.5
 - BMI > 40 (Ideally less than 35)
 - Smoking 4 weeks pre- / post-op
 - Hg < 10.0
 - Albumin < 3.0

Pre-Operative Phase—Patient Optimization—

Safety FIRST

- Infection risk
 - Diabetes – A1C > 7.5
 - BMI > 40 (Ideally less than 35)
 - Smoking 4 weeks pre- / post-op
 - Hg < 10.0
 - Albumin < 3.0

Pre-Operative Phase—Patient Optimization—

Safety FIRST

- Healing problems
 - Diabetes – A1C > 7.5
 - BMI > 40 (Ideally less than 35)
 - Smoking 4 weeks pre- / post-op
 - Albumin < 3.0

Pre-Operative Phase

Patient Optimization—Safety FIRST



- Transfusions and length of stay
 - BMI > 40 (Ideally less than 35)
 - Smoking 4 weeks pre- / post-op
 - Hg < 10.0

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Pre-Operative Phase



- Patient Education

 - Handbooks
 - Pre-Surgical Office Discussion
- Consistent Messaging
 - ALL parties
 - PMDs doing clearances
 - PATs by nurses, techs
 - Pre-op phone call
 - Secretaries

Peri-Operative Phase



- **Pre-operative Hydration** (Enhanced Recovery After Surgery – ERAS)
(American Society of Anesthesiologist Guidelines)
 - Clear liquids up to 2 hours prior to arrival time at surgery center
- **Nasal Decolonization**
- **Tranexamic Acid**
- **Anesthesia**
 - Spinal Anesthesia
 - Ultrasound Guided Regional Anesthesia Techniques
 - Adductor Canal Block; IPACK
 - Sensory only -> allows early mobilization



Peri-Operative Phase



- Pre-operative Hydration
 - Clear liquids up to 2 hours prior to arrival
 - Gatorade
 - NOT after midnight
- Nasal Decolonization
 - Pre-op at home
 - Immediately pre-op
 - MRSA nasal swab Testing



Peri-Operative Phase

- Tranexamic Acid
 - Controls bleeding
 - Controls swelling
 - Decreases infection!



Peri-Operative Phase



- Anesthesia
 - Spinal Anesthesia
 - Less meds, shorter duration
 - Less sedation and muscle paralysis
 - Ultrasound Guided Regional Blocks
 - Adductor Canal Block; IPACK
 - Sensory only -> allows early mobilization



Peri-Operative Phase



- Multimodal Pain Management
 - Pre and Intra Operative
 - Pre-emptive analgesics 1-2 hours prior to surgery
 - NSAID (Celebrex)
 - Acetaminophen
 - Dexamethasone/Glucocorticoid Steroid –
 - » Prolong analgesia/reduce nausea
 - Pre-emptive anti-nausea medications
 - Scopolamine
 - Intraoperative Zofran

Surgical Phase

- Faster surgery
 - Team approach
 - Volume
 - Minimally invasive
 - 1 hour surgery
 - Technology



ROSA KNEE SYSTEM at OrthoNY Ambulatory Surgery Centers



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Post-Operative Phase



- Multimodal Pain Program
 - 1st line:
 - Scheduled NSAIDS
 - Acetaminophen
 - Opioids PRN
 - ***Less requests for opioid refills
- VTE Prophylaxis
 - ASA 81mg
 - Eliquis 2.5mg in higher risk patients

Post-Operative Phase



- Wound Care
 - Aquacel™
- Early mobilization
- Compression
- D/C to HOME
- Elevation
- Pain Pyramid
- Case Management/Clinical Staff Follow-Up Calls
- Total Knee – ICE Machine

1. “Discharge to Inpatient Facilities After Total Hip Arthroplasty is Associated with Increased Postdischarge Morbidity.”

Authors: Michael C. Fu MD, MHS, Andre M. Samuel MD, Peter K. Sculco MD, Catherine H. MacLean, MD, PhD, Douglas E. Padgett MD, Alexander S. McLawhorn, MD, MBA.

Journal of Arthroplasty, 2017;32; S144-149.

In this study, a large database was used to evaluate the short-term outcomes of people who either went directly home or directly to a rehabilitation or skilled nursing facility after hip or knee replacement surgery.

The authors studied patients who underwent hip replacement surgery from 2011-2014. In this study, nearly 75% of patients went directly home after surgery. Among the 54,837 people who had hip replacement surgery, 40,576 (74%) went home, and 14,261 (26%) went to an inpatient rehabilitation or skilled nursing facility.

Patients who went from the hospital directly to an inpatient facility after surgery were:

- 34 times more likely to have an infection
- 51 times more likely to develop a urinary tract infection
- 44 times more likely to be readmitted to the hospital
- 31 times more likely to have a problem with their wound
- 93 times more likely to have a respiratory complication



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Post-Operative Phase

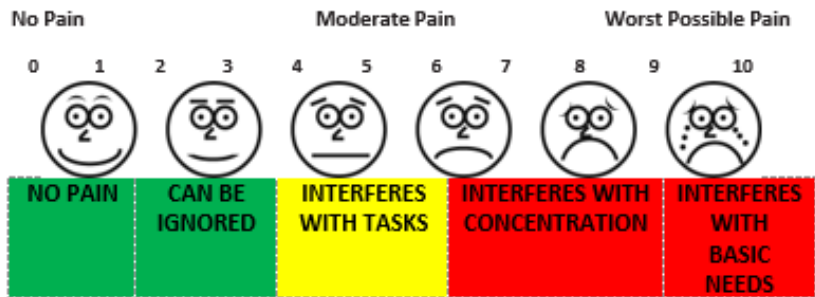
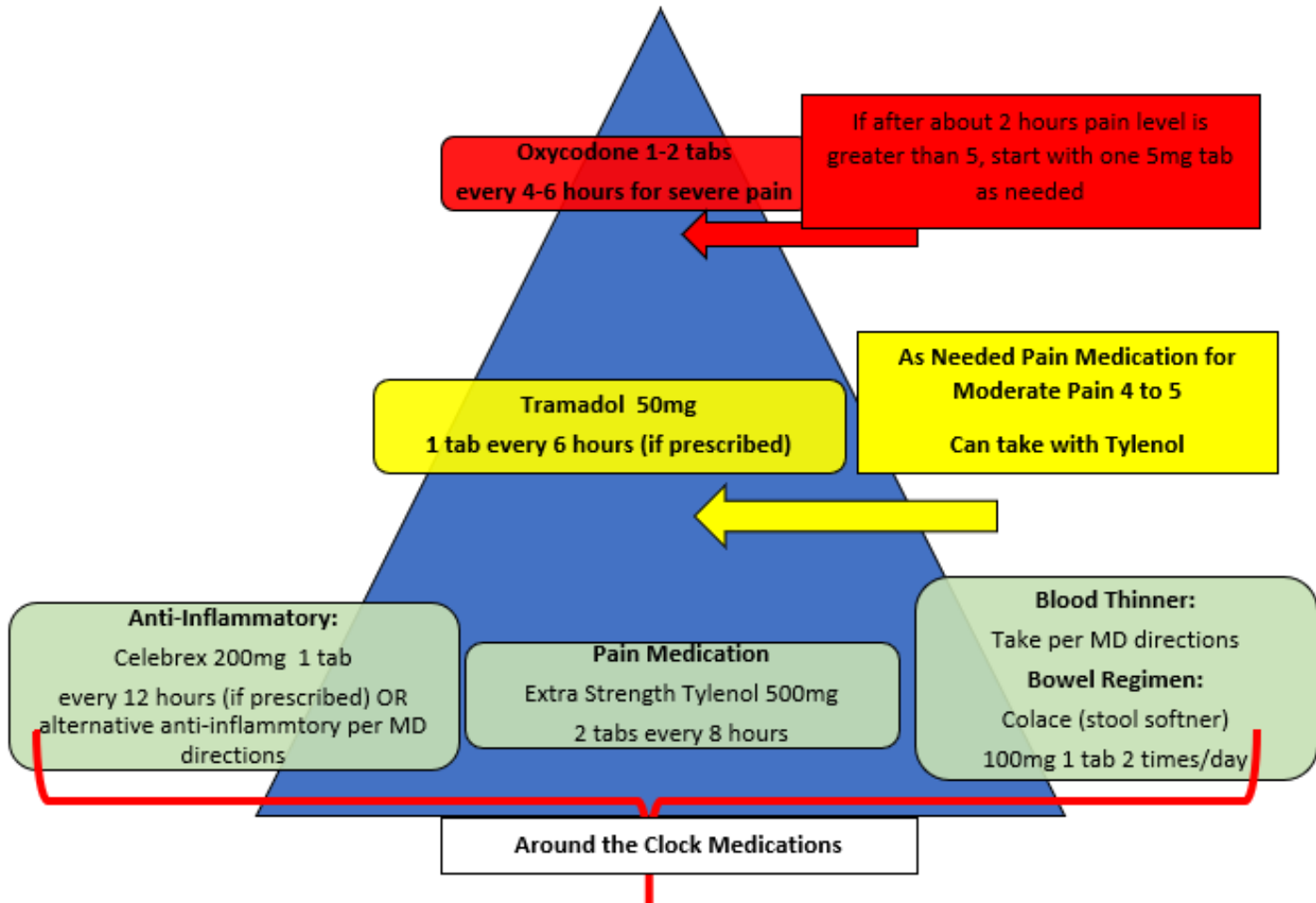


- Wound Care
 - Aquacel™
 - Compression
 - Elevation
 - Ice packs or Ice Machine

Post-Operative Phase



- Early mobilization
- D/C to HOME
- Case Management/Clinical Staff Follow-Up Calls
- Pain Pyramid



* Teaching design developed by OrthoNY Team

Total Knee/Hip Aftercare

- Discharge

- Same day
- Help at home
- Driving – Left (in 2 weeks) vs Right (4 weeks)
- Physical Therapy – may be changing
 - TKA – Evolving concepts
 - Less aggressive/no formal PT initially (to prevent additional inflammation and edema and pain)*
 - Vs. Start within 2-3 days Post-op
 - THA – 2 weeks
 - Delayed start does not impact outcomes -> WALKING

* “Therapy Free Total Replacement. Save \$720 in Copays”. Andrew B. Wickline, MD, FAAOS. Web. 28 February 2020. <https://www.andrewwicklinemd.com/specialties/therapy-free-total-knee-replacement>



Total Knee/Hip Aftercare



- Pain control
 - Majority 6-12 weeks
 - Can be up to 1 year
- TKA – Range of motion by 6 weeks
- THA – Hip Precautions for 6 weeks



Limitations After Surgery



- Activities that place excessive stress on the joint should be avoided.
 - Skiing (higher difficulty = more stress on the replacement)
 - Running/Jumping
 - Contact Sports
- Ok to do!
 - Swimming
 - Bike
 - Walking/hiking
 - Doubles tennis
 - Golf



Risks of Joint Replacement



- 90-95% Success rate
- Common complaints:
 - TKA—Clicking, Numbness, Kneeling
 - THA—Leg Length discrepancy
- Risks:
 - Stiffness
 - Persistent pain
 - Instability/dislocation
 - Infection
 - Loosening
 - DVT/PE
 - MI/Stroke
 - Wearing out



WHY?



Why Same-Day Total Joints?



2018 – CMS
removes TKA
from IPO List

2020 – CMS
removes THA
from IPO List

ADDS TKA to
ASC Approved
List

The screenshot shows the AAHKS website with the following content:

- Header:** AAHKS AMERICAN ASSOCIATION OF HIP AND KNEE SURGEONS. Navigation: Educate. Advocate. Investigate. Journals. Newsroom. Join AAHKS. Job Center. Contact Us. Login. Find a Doctor.
- Section 1:** "Removal of Total Knee Arthroplasty from the CMS Inpatient Only List" with a sub-header "Position of the American Association of Hip and Knee Surgeons" and a button for "Position Statements". A text box below states: "In November 2017, the Center for Medicare and Medicaid Services (CMS) finalized the 2018 Medicare Outpatient Prospective Payment System rule that removed total knee arthroplasty (TKA) procedures from the Medicare inpatient-only (IPO) list of procedures. This action has already had significant and unexpected consequences."
- Section 2:** "CY2020 OPPS and ASC Payment Systems" with a button for "Advocacy Home".
- Section 3:** "CMS Releases CY2020 OPPS and ASC Payment Systems Final Rule". The text states: "The Centers for Medicare & Medicaid Services (CMS) published the 2020 Medicare Hospital Outpatient Prospective Payment (OPPS) and Ambulatory Surgical Center Payment Systems Final Rule on November 12, 2019. In the Rule CMS removed total hip arthroplasty (THA) from the CMS inpatient only list (IPO) and added total knee arthroplasty (TKA) to the Ambulatory Surgical Centers (ASC) Covered Surgical Procedures List (CPL) in CY 2020." It includes a link to a comment letter and a summary of the final rule.
- Section 4:** "AAHKS continues to believe there has not been adequate action to address the issues that arose from the removal of TKA from the IPO to now support the removal of THA. With regard to the proposed addition of TKA to the ASC CPL, it is imperative that standards and procedures are in place as part of this change to ensure patient safety."
- Section 5:** "Total Hip Arthroplasty and the Inpatient-Only List (IPO)". The text states: "CMS removed CPT code 27130 (THA) from the IPO list. As such, providers will now be reimbursed by Medicare for THA performed during a hospital outpatient stay. Medicare will continue to reimburse providers for THA as an inpatient procedure if the patient's admission spans at least two midnights."
- Section 6:** A bullet point: "In 2017 CMS sought comments through the OPPOS Proposed Rule on the possible removal of partial hip arthroplasty (PHA) and THA. The AAHKS comment letter on the Proposed Rule stated that we did not believe that THA was appropriate for removal from the IPO because 'we are not aware of any data to confirm the safety and efficacy of outpatient THA in Medicare beneficiaries.'"

Why Same-Day Total Joints?



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THA is NEXT

Why Same-Day Total Joints?



- Better patient experience and safety
- Greater surgeon control/satisfaction
- Future direction of healthcare
- Improve Patient Satisfaction
- Create the “WOW” effect
- Create culture/attitude of well-person surgery
- Cost savings
- Prevent hospital admission or use of hospital bed – orthoNY
save them for medical patients in need
- Limit exposure to Infectious Diseases

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Why Same-Day Total Joints?



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Why Same-Day Total Joints?



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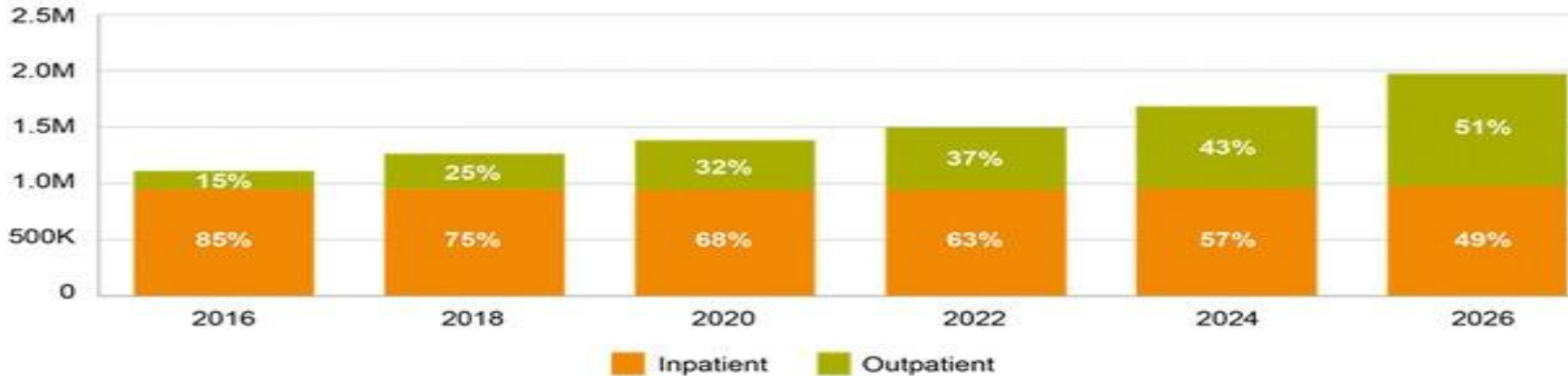
Why Same-Day Total Joints?



- Prevent hospital admission
 - Free up Hospital beds
 - Limit exposure to Infectious Diseases
 - Reassure patient holding off to get necessary surgery
 - You DO NOT have to stay in the hospital

Same-Day Total Joints Trends

US Market, 2016–2026



- *2012-2015 – **47% increase** in elective OP TJAs
- *Next 10 years – Estimated **77% growth** in OP TJAs
- *Inpatient TJA growing only **3%** over the next 10 yrs

Bert, J. M., Hooper, J., & Moen, S. (2017). Outpatient Total Joint Arthroplasty. *Current reviews in musculoskeletal medicine*, 10(4), 567–574. <https://doi.org/10.1007/s12178-017-9451-2>

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Same-Day TJA – The Ideal Candidate



- *****Willingness to have outpatient TJA*****
- Minimal (controlled) Co-morbidities
- BMI < 40
- Caregiver or social network at home
- Clear expectations
- Pre-operative Education

Outpatient Joint Arthroplasty is SAFE?

Arthroplasty Today 4 (2018) 484–487



ELSEVIER

Contents lists available at ScienceDirect

Arthroplasty Today

journal homepage: <http://www.arthroplastytoday.org/>



Original research

Is it safe? Outpatient total joint arthroplasty with discharge to home at a freestanding ambulatory surgical center

Ritesh R. Shah, MD^{a, b, *}, Nancy E. Cipparrone, MA^a, Alexander C. Gordon, MD^{a, b},
David J. Raab, MD^{a, b}, James R. Bresch, MD^{b, c}, Nishant A. Shah, MD^{b, d}

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ARTICLE INFO

Article history:
Received 18 April 2018
Received in revised form
14 August 2018
Accepted 14 August 2018
Available online 22 September 2018

Keywords:
Total joint arthroplasty
Complications
Outpatient
Independent ambulatory surgical center

Results: Of the 115 TJAs, 37 (32%) were total hip arthroplasties (THAs), 53 (46%) total knee arthroplasties (TKAs), and 25 (22%) unicompartmental knee arthroplasties, with a mean age of 57 ± 7 years and body mass index of 30 ± 5 kg/m². There were no intraoperative or direct ASC-related complications. There was 1 instance (0.9%) of a postoperative minimally displaced intertrochanteric femur fracture after THA due to a fall treated nonoperatively complication within 30 days of surgery. Of the 90-day complication events, there were 2 patients (2%) with postoperative arthrofibrosis of the knee after TKA requiring manipulation under anesthesia, 1 postoperative patellar tendon rupture during therapy after TKA requiring surgical repair and 1 delayed hematogenous infection after international travel after THA requiring 2-staged exchange.

Conclusions: Outpatient TJA with discharge to home at a freestanding, independent ASC is a safe option after development of a multidisciplinary TJA pathway.



Outpatient Joint Arthroplasty is **SAFE?**

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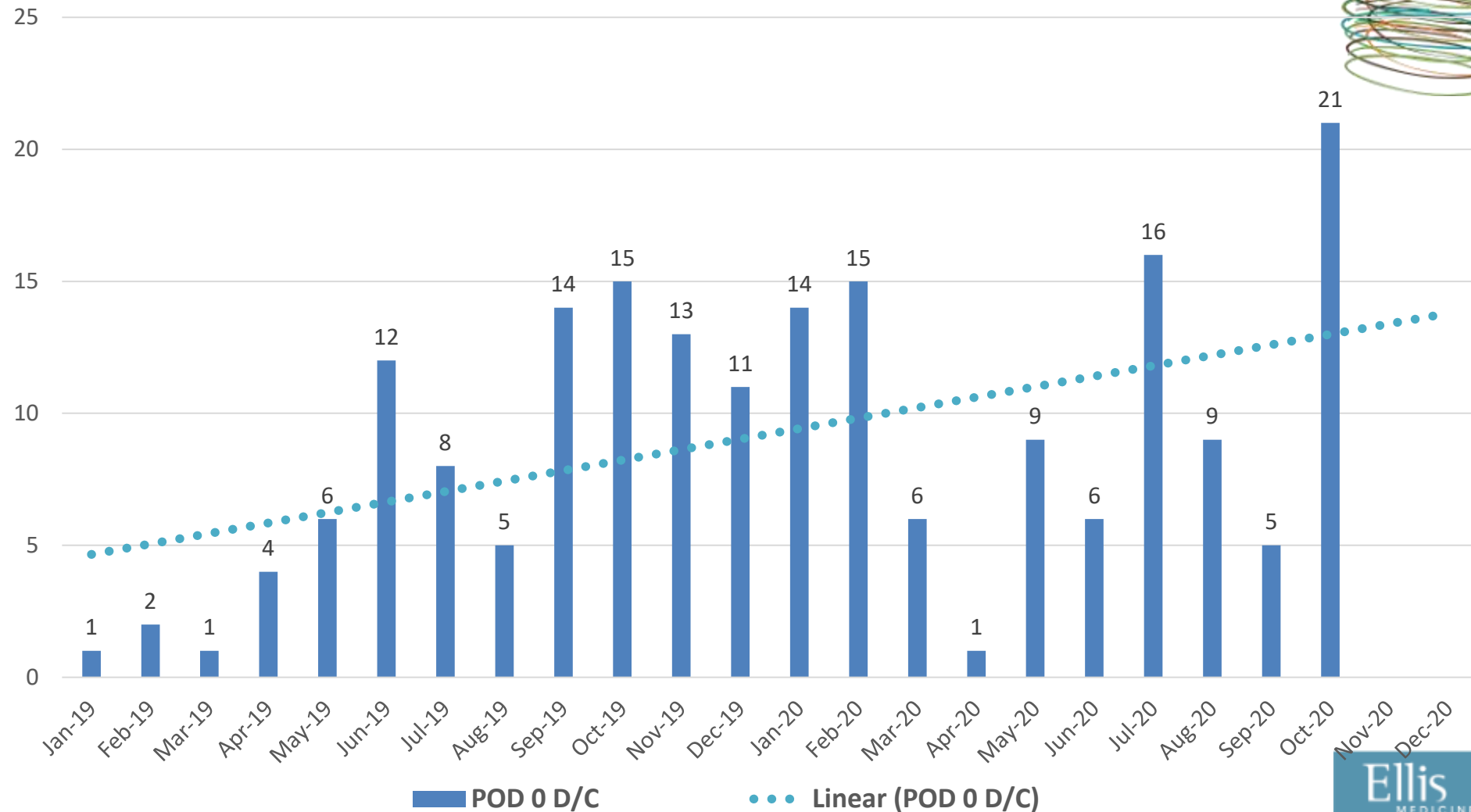
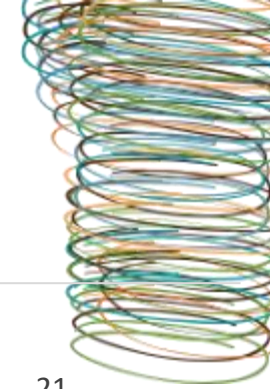
formed between August 2015 and March 2017 by one of the 4 orthopedic surgeons. Before the first TJA, the ASC had developed a multidisciplinary TJA pathway.

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Ellis Hospital Same-Day TJA Discharges Jan 2019 – Oct 2020 Trend



The Future is Here!

Same Day Surgery 2019-2020



April 2019 – Oct 30, 2020

198 Same-Day
Total Knees/Hips at
Ellis Hospital



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Same Day Joint Replacement – What can YOU do to make this a success



- Patient Optimization
 - Diabetes Management
 - Weight Management
 - Smoking Cessation
- Timeliness of Surgical Clearance appts.
- Pt. Preparation/Education
 - Consistent Messaging – Going home the same day is safe
- Alert the Orthopedic Surgeon to any potential red flags or reasons a pt. may not be a candidate for safe same-day d/c

Same Day Joint Replacement – What can YOU do to make this a success



- Patient Optimization
 - Diabetes Management – HG A1C <7.6
 - Weight Management –BMI < 40
 - Smoking Cessation – 1 month before and after surgery
 - Prompt referral to
 - Cardiology (6 months)
 - Neurology
 - Pulmonary

Same Day Joint Replacement – What can YOU do to make this a success



- Timeliness of Surgical Clearance appointments
 - Has to be within 30 days of surgery
 - Labs need to be addressed before surgery
- Alert the Orthopedic Surgeon to any potential red flags or reasons a pt. may not be a candidate for safe same-day d/c
 - Open wounds
 - Social support issues
 - Upcoming necessary surgeries (dental work)

Same Day Joint Replacement – What can YOU do to make this a success



- Pt. Preparation/Education -- Consistent Messaging
 - Going home the same day is safe
 - Patients are happier
 - Outcomes are better
 - Less risks associated with hospital stay

Questions?





References

- Bert, J. M., Hooper, J., & Moen, S. (2017). Outpatient Total Joint Arthroplasty. *Current reviews in musculoskeletal medicine*, 10(4), 567–574. <https://doi.org/10.1007/s12178-017-9451-2>
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- Sloan, M., Sheth, N. “Projected Volume of Primary and Revision Total Joint Arthroplasty in the United States, 2030-2060” *J Bone Joint Surg Am*. 2018 Sep 5;100(17):1455-1460.
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