

Reduction in the Average Length of Stay(LOS) for Elective Hip/Knee Replacements

The Team that said “YES”

Jen Doane BSN, RN

EBP Fellowship

Pico Question - For patients undergoing elective hip/knee replacements, can implementing a discharge education letter targeted towards setting the discharge expectation to home at the preoperative appointment reduce average length of stay (LOS)?

The Plan - Reduce the Portland VA Hospital average LOS to three days or less. Current LOS for Fiscal Year 2016 (baseline data) was 4.5 days with 193 surgeries completed.

Primary Intervention: Set the discharge expectation to home!

Baseline Data

LOS data for elective hips and knee replacements per the VA Utilization Management Database: FY 2016

- ▶ National Average (all VA Hospitals) = 4.1
- ▶ VISN 20 (Portland, Seattle, Boise, Spokane, Roseburg) = 4.1
- ▶ Portland = 4.5 (highest in the VISN) Boise = 3.6 (lowest in the VISN)
- ▶ Other VA's:
 - ▶ Palo Alto = 4.3
 - ▶ Denver and San Diego = 3.0
 - ▶ Minneapolis = 4.1
 - ▶ Boston 4.7

Boise - Called the UM Manager and asked for information on their DC pre/post operative processes.

Denver - Contacted the Orthopedic Surgeon and asked what the department was doing to achieve a the 3.0 LOS.

Chart Review

Chart Reviews:

17 of the 193 cases from FY 16 revealed 2 primary delays:

1. Delay in going to the VA Community Living Center (CLC) for rehabilitation.
2. Delays in pre-authorization of their private insurance for community rehabilitation placement.

Inconsistent use of the Risk Assessment and Prediction Tool (RAPT)

- ▶ The RAPT questionnaire consists of six questions and was developed to use preoperatively to identify patients most likely to need post acute rehabilitation.
- ▶ **The patient can score 0-12 points**
- ▶ 0-6 - 90% will go to post acute rehabilitation
- ▶ 7-9 - 60 % will go to post acute rehabilitation
- ▶ 10-12 - 98% will discharge to home

Literature Review by UM RN Revealed 3 Trends

1. Setting a Discharge expectation pre-operatively to home increased patients disposition to home.
 2. The RAPT score is a valid predictor of discharge disposition allowing time to plan for post acute care preoperatively.
 3. The number one reason a patient will discharge to rehabilitation vs home is the patient lives alone or lack of caregiver support.
- ▶ ****One study also stated that a delay in getting a patient to rehab when inpatient goals are not met did not change patients long term outcomes and recommended early discharge to rehab.

The Discharge Letter

- ▶ The original letter for this project came from the Boise VA.
- ▶ The Portland version involved a collaborative team: The Education Department, Orthopedic Team, Social Work and Utilization Management.
- ▶ The top portion of the discharge letter sets the expectation for discharge on post operative day 2-3 to home.
- ▶ The bottom portion of the discharge letter focusses on community rehabilitation placement using Medicare or private insurance on post operative day 2-3.

Intervention

- ▶ February 1, 2017 – The discharge education letter was introduced into the Orthopedic Pre-Operative Clinic.
- ▶ The RN Care Coordinator reviewed the letter with each patient and answered questions about their upcoming elective surgery and individual discharge plan.
- ▶ The expectation for discharge to home or rehabilitation was set for post op day two or three with an emphasis on discharge to home.

UM Data Review

Number of Cases:

FY 16	193
FY 17	202

Average Length of Stay (days):

4.5
3.5

▶ Oct	23	4.2
▶ Nov	26	5.3

***Reduction of surgical beds**

▶ Dec	15	4.7
▶ Jan	15	4.5

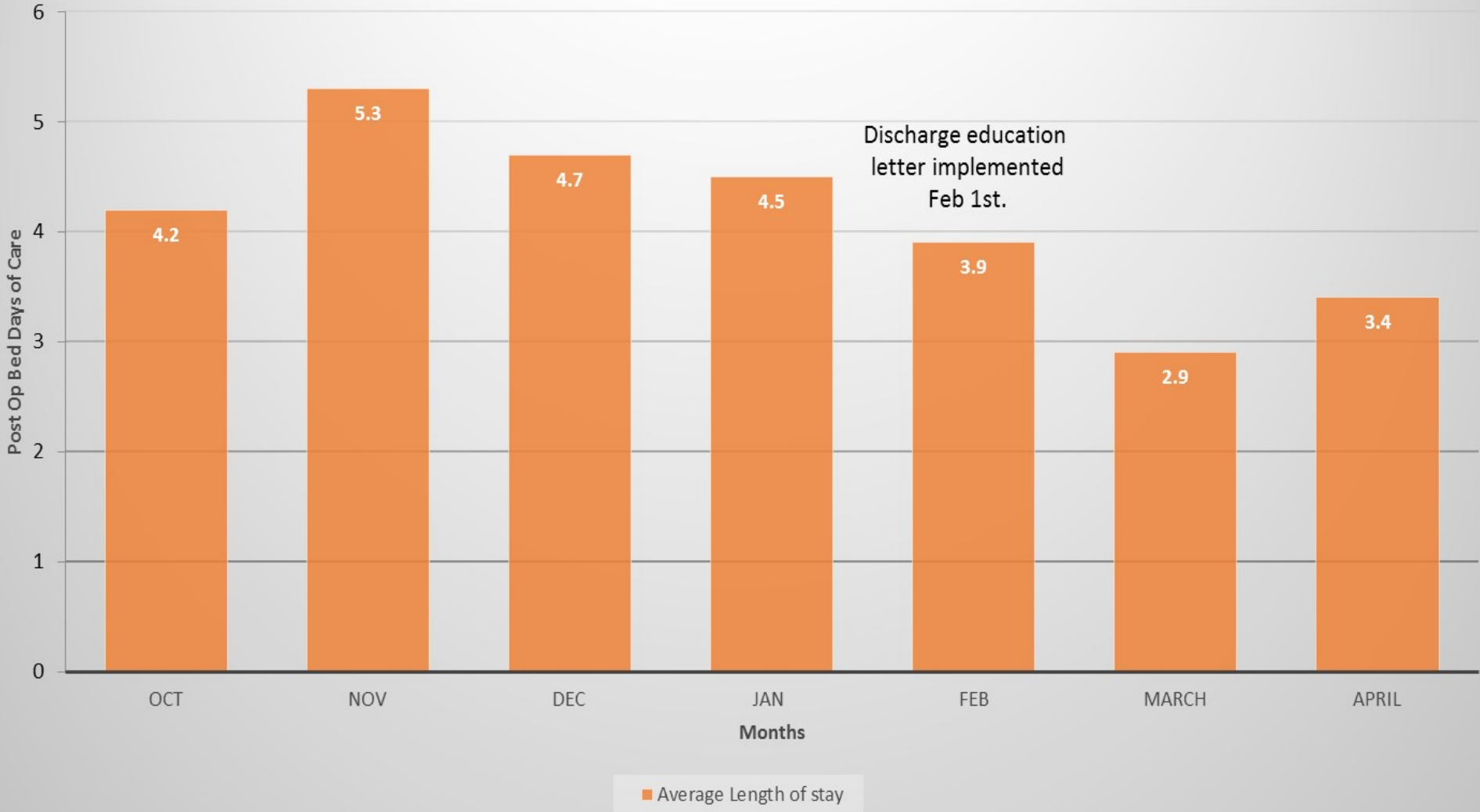
****Discharge expectation education letter implemented**

▶ Feb	18	3.9
▶ Mar	18	2.9
▶ April	13	3.4

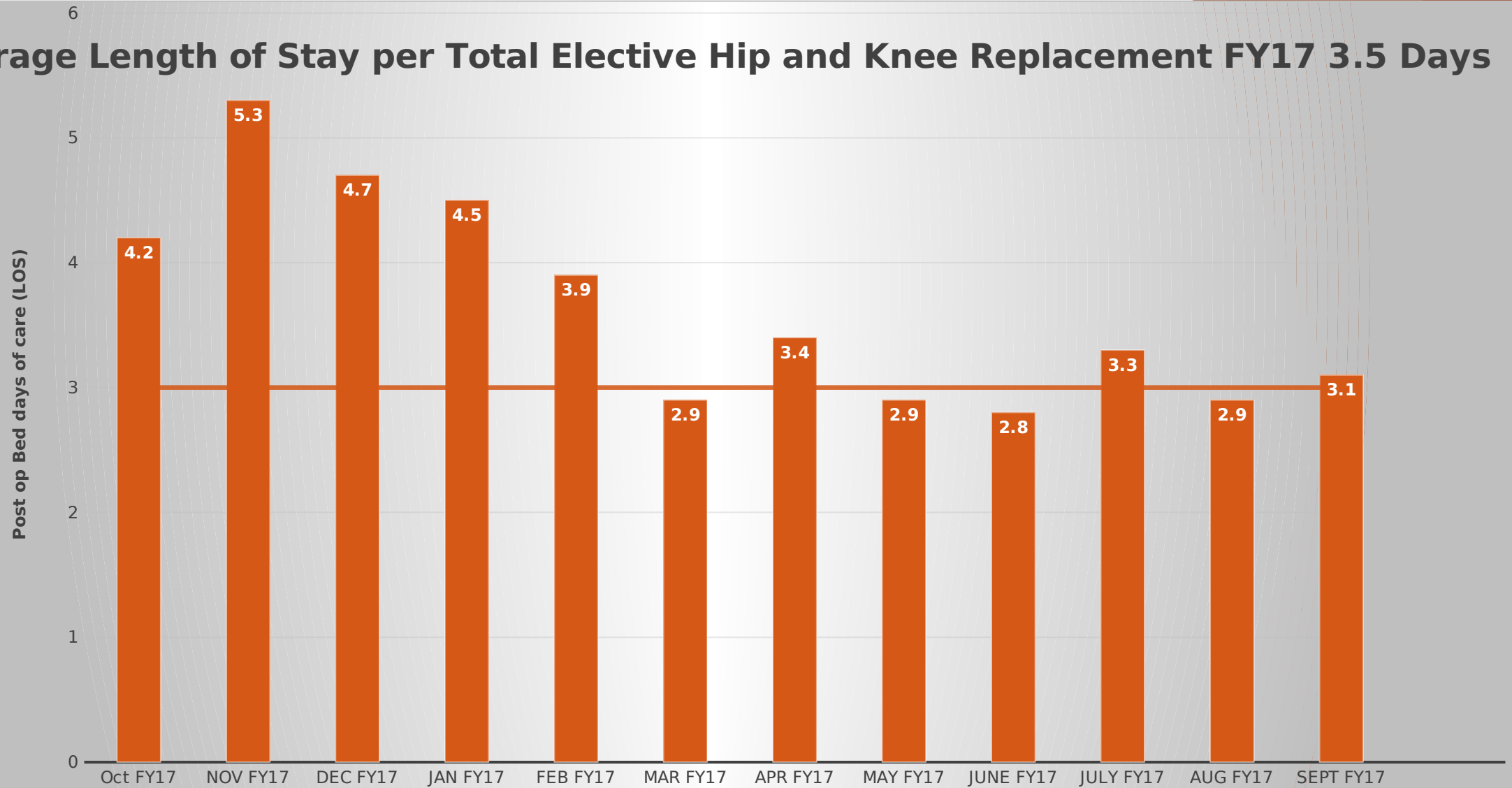
Average LOS for first three months = 3.4

*****Per Ortho Team there have been no readmits or complications post DC**

Average Length of Stay per Total elective hip and knee Replacement FY17



Average Length of Stay per Total Elective Hip and Knee Replacement FY17 3.5 Days



Reason for LOS > than 3 Days

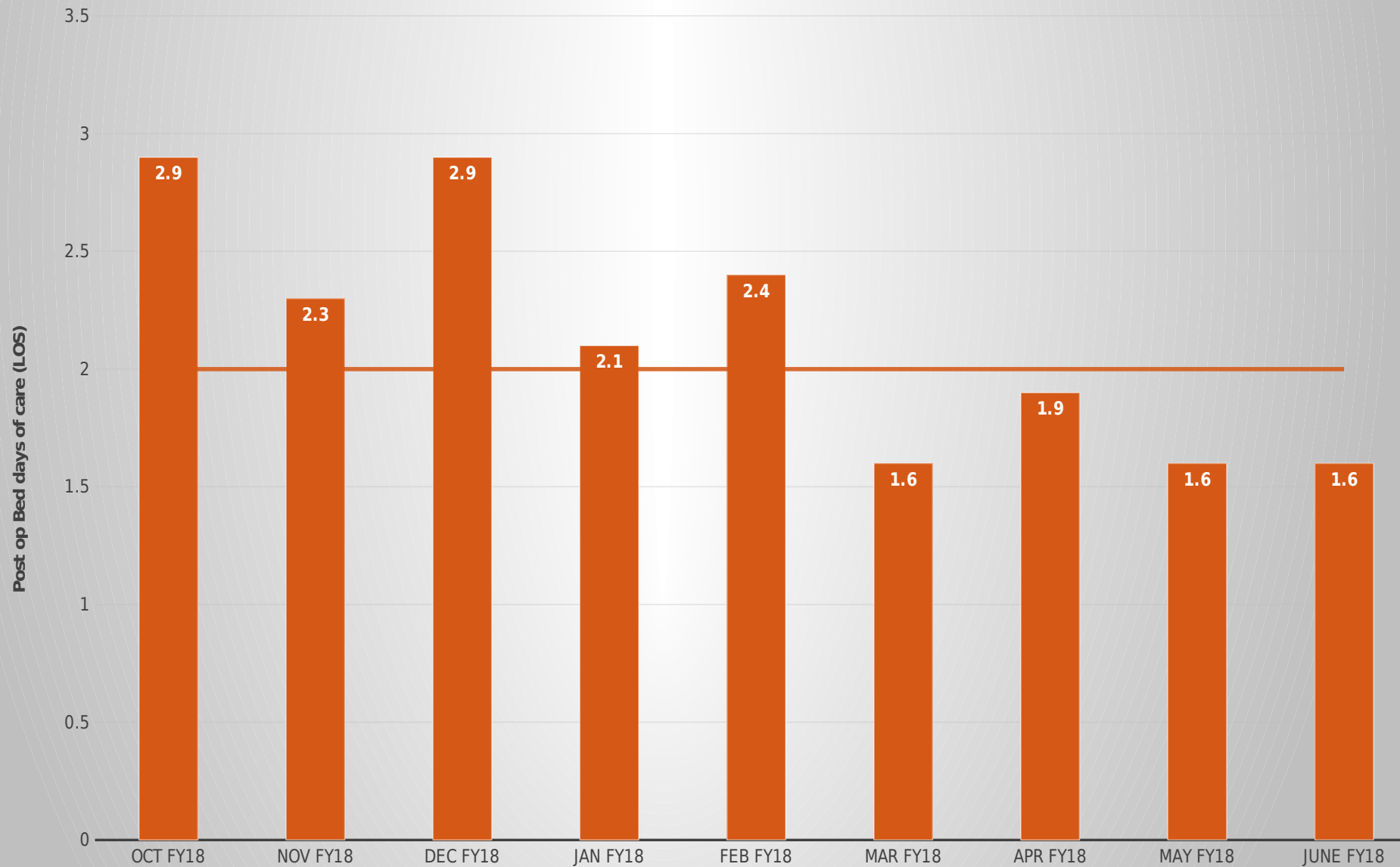
Since the project began on February 1, 2017 through January 31, 2018.

34 patients have had a LOS greater than 3 days

- ▶ 1. Medical Issue (18) = 53%
- ▶ 2. Placement delays to a SNF (7) = 20%
- ▶ 3. Patients needing extra day of PT (5) = 15%
- ▶ 4. Falls (2) = 6%
- ▶ 5. No ride home/unprepared for DC (2) = 6%

- ▶ One 30 day post surgery readmit.

Average Length of Stay per Total Elective Hip and Knee Replacement FY18 YTD 2.2 Days



Acknowledgements

- ▶ A Huge Thank you to the team that said “YES”
- ▶ My Manager Alice Avolio – who said “yes” to the EBP Fellowship
- ▶ My Mentor Nicole Carter CNS – many hours of guidance and support.
- ▶ Dr. David Kagan who said “yes” and supported me from my first elevator speech.
- ▶ **The ORTHO TEAM - Dr. Lucas Anissian, Sadie May RN, Lori Thompson, RN Michael Slaughter PA, Robin Sterin PA, Patricia Mecum NP, Kobi Cooke/Tim O’Hira Facilitators. The residents and interns.**
- ▶ Social Work – Chris Stenken MSW, Marco Clark MSW
- ▶ The education department Helen Lee MSN, RN, CNE and Rene Stell and Sola Whitehead our VA Librarian.

References

- ▶ Chen, A. F., Stewart, M. K., Heyl, A. E., & Klatt, B. A. (2012). Effect of immediate postoperative physical therapy on length of stay for total joint arthroplasty patients. *The Journal of Arthroplasty*, 27(6), 851-856. doi:10.1016/j.arth.2012.01.011 [doi]
- ▶ Dauty, M., Schmitt, X., Menu, P., Rousseau, B., & Dubois, C. (2012). Using the risk assessment and predictor tool (RAPT) for patients after total knee replacement surgery. *Annals of Physical and Rehabilitation Medicine*, 55(1), 4-15. doi:10.1016/j.rehab.2011.10.006 [doi]
- ▶ Halawi, M. J., Vovos, T. J., Green, C. L., Wellman, S. S., Attarian, D. E., & Bolognesi, M. P. (2015). Patient expectation is the most important predictor of discharge destination after primary total joint arthroplasty. *The Journal of Arthroplasty*, 30(4), 539-542. doi:10.1016/j.arth.2014.10.031 [doi]
- ▶ Hansen, V. J., Gromov, K., Lebrun, L. M., Rubash, H. E., Malchau, H., & Freiberg, A. A. (2015). Does the risk assessment and prediction tool predict discharge disposition after joint replacement? *Clinical Orthopaedics and Related Research*, 473(2), 597-601. doi:10.1007/s11999-014-3851-z [doi]
- ▶ Hass, S., Jaekel, C., & Nesbitt, B. (2015). Nursing strategies to reduce length of stay for persons undergoing total knee replacement: Integrative review of key variables. *Journal of Nursing Care Quality*, 30(3), 283-288. doi:10.1097/NCQ.000000000000104 [doi]
- ▶ Holm, B., Bandholm, T., Lunn, T. H., Husted, H., Aalund, P. K., Hansen, T. B., & Kehlet, H. (2014). Role of preoperative pain, muscle function, and activity level in discharge readiness after fast-track hip and knee arthroplasty. *Acta Orthopaedica*, 85(5), 488-492. doi:10.3109/17453674.2014.934186 [doi]
- ▶ Konopka, J. F., Hansen, V. J., Rubash, H. E., & Freiberg, A. A. (2015). Risk assessment tools used to predict outcomes of total hip and total knee arthroplasty. *The Orthopedic Clinics of North America*, 46(3), 351-62, ix-x. doi:10.1016/j.ocl.2015.02.004 [doi]
- ▶ Napier, R. J., Spence, D., Diamond, O., O'Brien, S., Walsh, T., & Beverland, D. E. (2013). Modifiable factors delaying early discharge following primary joint arthroplasty. *European Journal of Orthopaedic Surgery & Traumatology : Orthopedie Traumatologie*, 23(6), 665-669. doi:10.1007/s00590-012-1053-5 [doi]
- ▶ Sharareh, B., Le, N. B., Hoang, M. T., & Schwarzkopf, R. (2014). Factors determining discharge destination for patients undergoing total joint arthroplasty. *The Journal of Arthroplasty*, 29(7), 1355-1358.e1. doi:10.1016/j.arth.2014.02.001 [doi]
- ▶ Talatzko, S., Deprey, S. M., & Hager, N. (2014). Comprehensive facility-wide approach improves outcomes after lower extremity surgical arthroplasty in an acute care hospital. *Journal for Healthcare Quality : Official Publication of the National Association for Healthcare Quality*, 36(3), 17-27. doi:10.1111/jhq.12000 [doi]