

University of Massachusetts Medical School

eScholarship@UMMS

UMass Center for Clinical and Translational
Science Research Retreat

2014 UMass Center for Clinical and
Translational Science Research Retreat

May 20th, 12:30 PM


Low Self-Reported Physical Function Status Was an Excellent Predictor of Adverse Postoperative Course in Older Veterans Having Knee and Hip Surgery

Alok Kapoor
University of Massachusetts Medical School

Et al.

Let us know how access to this document benefits you.

Follow this and additional works at: https://escholarship.umassmed.edu/cts_retreat

 Part of the [Health Services Research Commons](#), [Orthopedics Commons](#), [Surgical Procedures, Operative Commons](#), and the [Translational Medical Research Commons](#)

Kapoor A, Chew P, Reisman J, Berlowitz D. (2014). Low Self-Reported Physical Function Status Was an Excellent Predictor of Adverse Postoperative Course in Older Veterans Having Knee and Hip Surgery. UMass Center for Clinical and Translational Science Research Retreat. Retrieved from https://escholarship.umassmed.edu/cts_retreat/2014/posters/58

Creative Commons License



This work is licensed under a [Creative Commons Attribution-NonCommercial-Share Alike 3.0 License](#). This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.

Low Self-Reported Physical Function Status Was an Excellent Predictor of Adverse Postoperative Course in Older Veterans Having Knee and Hip Surgery

Alok Kapoor^{1,2,3}, Priscilla Chew², Joel Reisman², Dan Berlowitz^{1,2}

Supported by SHM GEMSSTAR /NIA R03 AG043906–01 (Kapoor), PPO 13-118 VA HSRD (Berlowitz), HFP 90-011 VA HSR&D (Berlowitz)

Affiliations:

1. Section of General Internal Medicine, Boston University School of Medicine, Boston, MA, United States
2. Center for Health Quality, Outcomes, and Economic Research, Edith Nourse Rogers Memorial Hospital, Bedford, MA, United States
3. University of Massachusetts Memorial Medical Center, Worcester, MA, United States

Corresponding author contact information:

Alok Kapoor, MD, MS
University of Massachusetts Medical Center
119 Belmont Street
Worcester, MA 01605
Phone: (508) 334 -4995
Email: Alok.Kapoor@umassmemorial.org

Objectives: To measure the association between functional status and an adverse postoperative course.

Design: Retrospective cohort study

Setting: Veterans Affairs Medical Center

Participants: Older adults who underwent total hip and knee replacement (THR and TKR) at a VA facility from 2002-2009. To be included, subjects must have completed the Veteran Rand-12 (VR-12) within six months of surgery. VR-12 is a general purpose 12 item health quality survey nearly identical to the SF-12 for which the summary score of physical health called physical component score (PCS) is normed to a value of 50 for US adults with standard deviation of 10.

Measurements: We measured the association of PCS split into quartiles with the outcomes major complication (cardiac arrest, myocardial infarction, stroke, respiratory failure, pneumonia, pulmonary embolism, sepsis, and renal failure), discharge to nursing home, and readmission. We checked our association for confounding by age, race, surgery type, facility volume, duration of time between collection of PCS and surgery, and clustering by facility.

Results: We identified 3,542 THR and TKR surgeries for which PCS information was available. The very lowest quartile of PCS (values 4.9-24.2) predicted a 2.7 fold increase in odds of major complications, 2.1 fold increase in odds of discharge to nursing home, and a 1.9 fold increase in odds of readmission compared with highest quartile (PCS 38.9-61). The next lowest quartile (PCS 24.3-31.8) also predicted elevated rates of major complication and readmission.

Conclusions: Very low PCS predicts greater than a 2 fold increase in major complication and readmission after total hip and knee replacement. Future research should re-measure the effect of very low PCS in populations not addressed by our study including women, patients having non-orthopedic surgery, and nonveterans.