

Poster #55: Hip Arthroscopy- Trends in Utilization and Cost-Savings Associated with Ambulatory Surgery Centers

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Disclosures

One or more authors have something to disclose:

- Shawn G Anthony, MD MBA: consultant for Smith & Nephew, Manhattan Surgery Center, Education payments from Gotham Surgical Solutions & Devices, Education payments from Arthrex
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Introduction

- Hip arthroscopy (HA) is a minimally invasive procedure that has seen significant growth in its utilization.¹
- Ambulatory surgery centers (ASCs) decrease costs while providing a quality of care comparable to that of outpatient hospitals (OHs).² However, ASC cost savings and utilization for hip arthroscopy (HA) is unknown.
- This study characterizes 1) ASC utilization trends, 2) cost savings associated with ASCs for HA, and 3) effects of ASCs on patient out-of-pocket expenditures (POPE) and surgeon reimbursement (SR).

Methods

Design: Retrospective Cohort Study

Data Set: 2013-2017 IBM MarketScan Commercial Claims Encounter database

Population/Cohorts: Patients aged 18 to 65 in the ASC or OH setting undergoing

- 1. Isolated Debridement:** Current Procedural Terminology (CPT) codes 29860, 29861, 29862, 29863
- 2. FAI surgery:** CPT 29914, 29915 with or without 29916, 29860, 29861, 29862, 29863
- 3. Isolated Labral Repair:** 29916 without 29914 or 29915 and with or without 29860, 29861, 29862, 29863

Methods

Statistical analysis

- A Cochran-Armitage Trend Test assessed ASC utilization trends over time.
- Immediate procedure reimbursement (IPR), POPE, and SR were calculated for each patient from reimbursements on the day of surgery. A multivariable model was utilized to determine the differences in IPR, POPE, and SR between the ASC and OH settings while controlling for patient and surgical variables that may influence the outcome variables.
- IPR for FAI surgery, the largest cohort, was subdivided into implant, anesthesia services, peripheral nerve block, operating room facility, SR, and other facility fees. Medians were calculated for each category. This was further split between OH and ASC settings and compared using two-tailed Mann Whitney U Tests.

Results

- 20,335 patients were identified (3,739 debridement, 14,583 FAI surgery, 2,013 labral repair).
- We found that ASCs significantly reduced IPR by \$3,310 (28.8%, $p < 0.01$), and POPE by \$47 (6.2%, $p < 0.01$).
- ASCs had no significant effect on SR.

Results

- From 2013-2017, ASC utilization for the full cohort increased by 5%, but was only 32.1% in 2017.

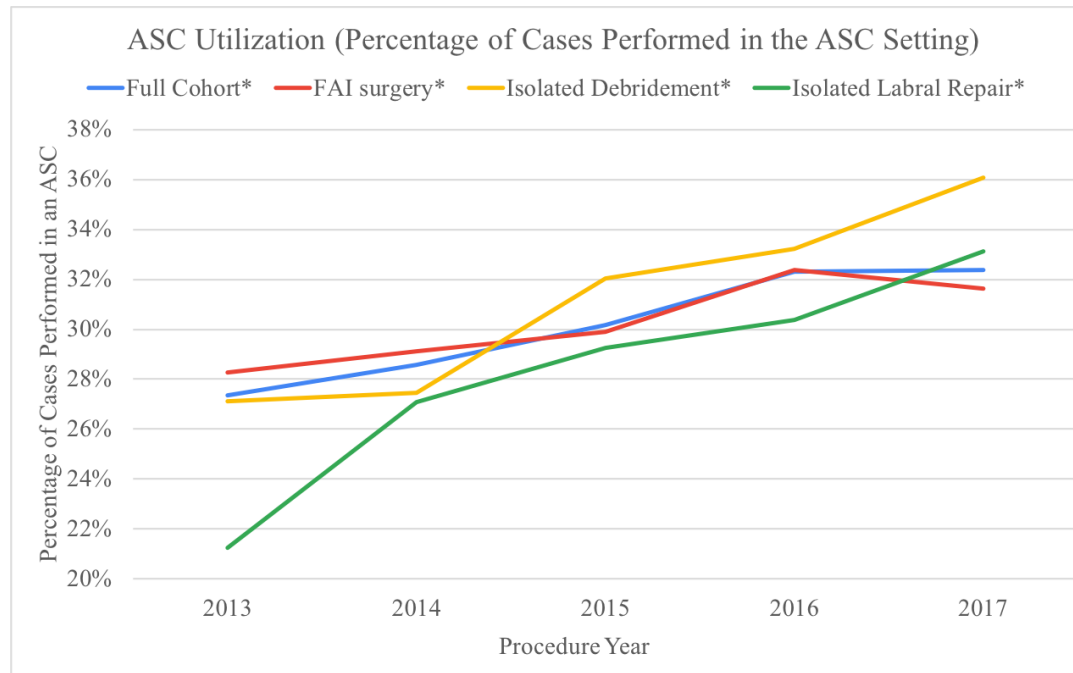


Figure 1: ASC Utilization as a Percentage of All Hip Arthroscopy Procedures. * indicates statistical significance on Cochran-Armitage Trend Test ($p < 0.05$).

Results

- When IPR for FAI surgery was analyzed, we found that ASCs saved costs on implants (\$10, $p=0.04$), anesthesia services (\$84, $p < 0.01$), operating room facility (\$940, $p < 0.01$), and other facility fees (\$2,577, $p < 0.01$).

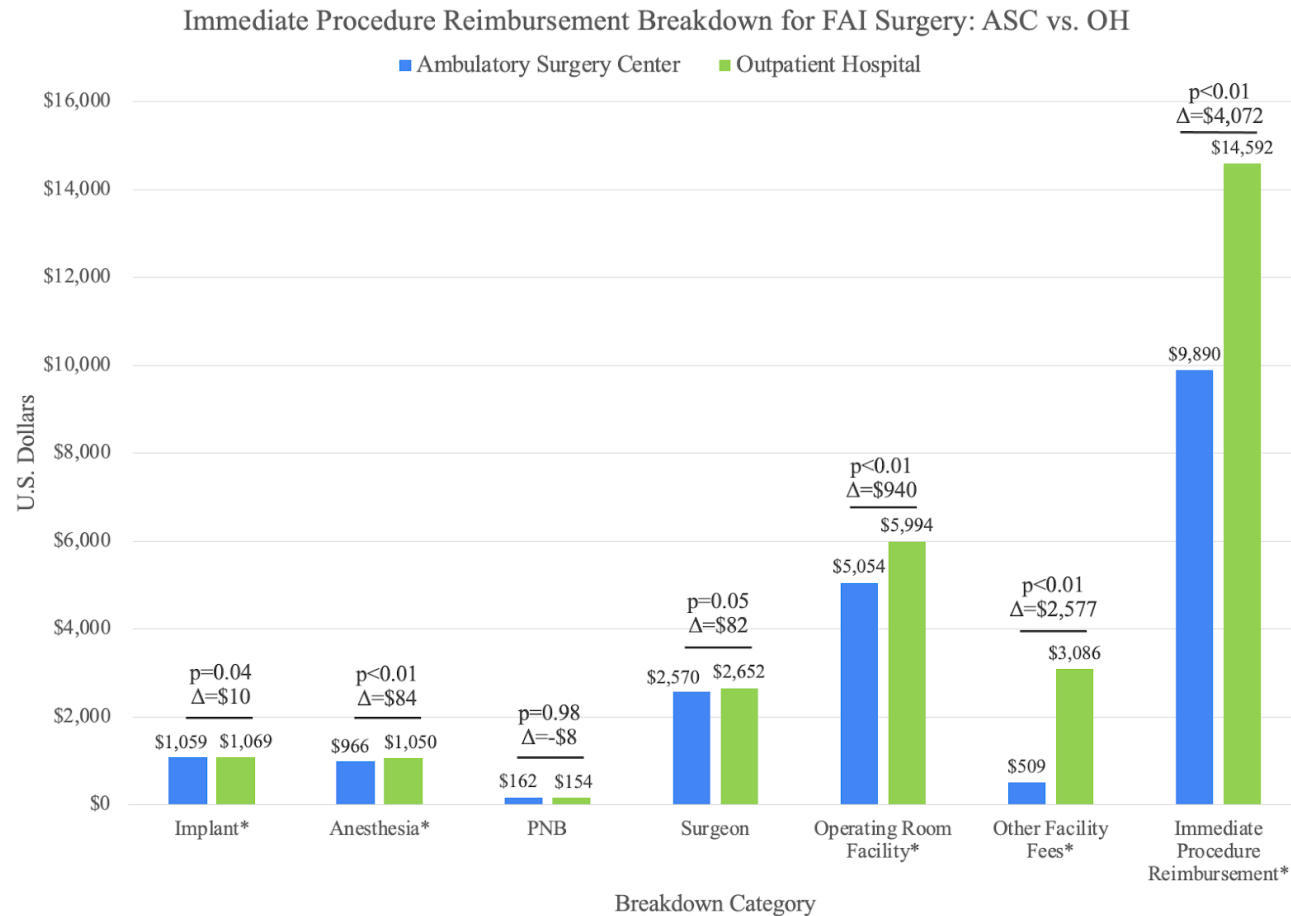


Figure 2: Breakdown of median day-of-surgery expenditures for FAI Surgery by location procedure performed: ASC vs OH.

Conclusions

- Although we found an increasing trend in ASC utilization for HA, the absolute utilization in 2017 was low at 32.1%.
- HA at ASCs can save \$3,310 per HA (when compared to OHs) by reducing facility-related fees and decreasing patient out-of-pocket expenditure.

Significance of Findings

- This study analyzes the site of care for hip arthroscopy and reimbursement differential between ASC and OH settings. We found that although ASCs are significantly cheaper for payers, they are not producing significant cost savings for patients. Health insurers are cutting reimbursements, while demanding that procedures be done in more economic facilities (ASCs), improving their return on investment, but not sharing these benefits with the providers or patients. Current trends are unsustainable for patients and providers, and providers should be aware of these trends to best guide their patients.

References

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Thank You!



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