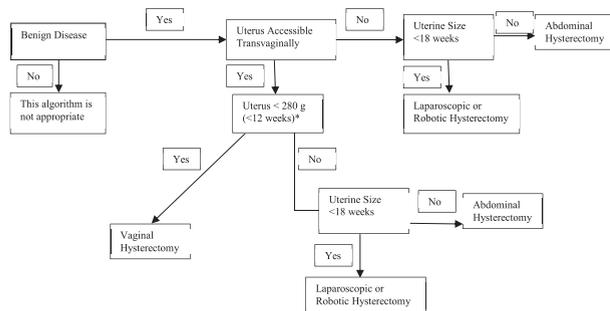


algorithm when the expected route was vaginal varied from 50-100%. Our cost estimates suggest that following this algorithm in Cohort A would have saved \$800,800 in hospital and operating room costs over a 5-year period.

CONCLUSION: Vaginal hysterectomy, when performed as expected by the clinical algorithm, was associated with shorter operative times, fewer complications and lower health care delivery costs. Prospective use and subsequent validation of a clinical decision tree algorithm is warranted.

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Hysterectomy Algorithm



*Or larger uteri when size reduction techniques including bivalving, coring, and morcellation are technically feasible.

11 Impact of surgical training on performance of proposed quality measures for hysterectomy for pelvic organ prolapse

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OBJECTIVES: The advent of Physician Quality Measure Reporting has increased the interest of specialty groups in the development of quality measures. Within a large healthcare maintenance organization (HMO), we assessed adherence to proposed quality measures for performance of hysterectomy for pelvic organ prolapse (POP) stratified by surgical training. The four measures were: offering conservative treatment of POP, quantitative assessment of POP (Pelvic Organ Prolapse-Quantification or Baden-Walker), performance of an apical support procedure at time of hysterectomy, and performance of cystoscopy during the procedure.

MATERIALS AND METHODS: Patients undergoing hysterectomy for POP from January 1-December 31, 2008 were identified by procedural codes within the electronic medical record of a HMO. Half the medical records were subject to extensive review including: demographic and clinical data, surgeon training background (gynecologic generalist, fellowship-trained surgeon in Female Pelvic Medicine and Reconstructive Surgery [FPMRS], “grandfathered” in

FPMRS), performance of four proposed quality measures and outcome measures within and beyond 12 months after surgery. Data was analyzed using descriptive statistics. Inferential statistics with chi-squared tests were performed to compare performance rates of quality measures stratified by surgical training. P-values less than 0.05 were considered statistically significant.

RESULTS: Six hundred sixty-two relevant surgeries were performed in 2008. Of the 328 patients with complete records (three excluded for missing data), gynecologic generalists performed 140 hysterectomies, fellowship-trained surgeons performed 133, and “grandfathered” surgeons performed 55. Frequencies and percentages for individual measures and cumulative performance based on surgeon type are shown in the Table. Fellowship-trained surgeons had the highest performance rates for each measure and cumulative performance of all measures. “Grandfathered” FPMRS surgeons performed significantly fewer measures than fellowship-trained surgeons and more than gynecologic generalists.

CONCLUSION: Within a large HMO, fellowship-trained FPMRS surgeons were significantly more likely to perform proposed quality measures relating to hysterectomy for POP, compared to those without such training. “Grandfathered” FPMRS surgeons performed measures more frequently than generalists but less than fellowship-trained surgeons. Further study is indicated to correlate with outcome measures.

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS: Emily Adams-Piper: Nothing to disclose; Noelani Guaderrama: Nothing to disclose; Emily Whitcomb: Nothing to disclose.

Table. Performance Rates of Proposed Quality Measures Based on Surgeon Type

Proposed Quality Measures	Generalist (n=140)	Fellowship-trained (n=133)	“Grandfathered” (n=55)	P-value
Conservative treatment offered	107 (76.4%)	125 (94%)	48 (87.3%)	0.0002
Quantitative preoperative assessment of POP	102 (72.9%)	131 (98.5%)	51 (92.7%)	<0.0001
Apical repair	97 (69.3%)	127 (95.5%)	45 (81.8%)	<0.0001
Cystoscopy	101 (72.1%)	130 (97.7%)	50 (90.9%)	<0.0001
Performance of all measures	55 (39.3%)	118 (88.7%)	34 (61.8%)	<0.0001

12 Costs associated with instrument sterilization in gynecologic surgery

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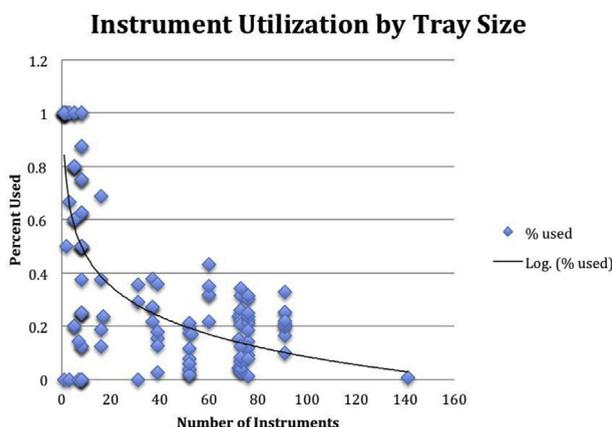
OBJECTIVES: With rising healthcare expenditures, hospitals need to contain costs in ways that maintain high quality patient care. Previous research has shown that 56% of perioperative costs are associated with materials and supplies and as many as 87% of reusable instruments on surgical trays go unused, which may account for up to \$20,400 in annual excess costs from processing unused instruments within a single surgical tray. Reorganizing Gynecologic laparoscopic trays to contain fewer instruments has resulted in cost savings estimated at \$13,889 for a single tray type within one institution. In the field of Operative Gynecology, there has been considerable attention to the various costs and surgical outcomes associated with hysterectomy performed in the abdominal, vaginal, and laparoscopic approaches, however little research has been done on the cost differences associated with reusable instruments in these approaches. This study aimed to identify the percent utilization of instruments within Gynecologic surgery and identify differences by surgical approach. We further aimed to estimate the costs of sterilizing surgical instruments and thus estimate the excess costs associated with processing unused instruments.

MATERIALS AND METHODS: This was a single site observational study. Specific instruments used from incision to closure were recorded on operating room count sheets via direct observation of surgeries performed in the Gynecologic operating rooms by a trained investigator. Cost data on instrument transportation, employee wages, and instrument replacement was obtained from institutional Supply Chain Management.

RESULTS: In total, 28 surgical cases (5 abdominal, 11 laparoscopic, and 12 vaginal) have been analyzed, with an average of 2 hours 37 minutes OR time and 5.4 instrument trays for each case. 150 trays were observed. Trays had an average of 38 instruments per tray (range 1-141). Surgeons used an average of 37.5 instruments of 190 instruments per case, for a utilization rate of 20.2±2.8%. A significant difference existed between utilization rates in abdominal cases (26.3±6.5%) and vaginal cases (13.6±3.3%) but not between laparoscopic (19.4±4.2%) versus other approaches. Instrument utilization was inversely correlated with number of instruments, with an average utilization rate of 17.4% for trays containing 20 or more instruments. Total institutional cost associated with instrument processing was estimated at \$8,025,800, or \$3.19 per instrument on average.

CONCLUSION: Instrument utilization in the Gynecologic operating room is low but comparable to other surgical specialties, and the cost of processing instruments is significant. Availability of certain instruments is necessary for patient safety in the event of rare unexpected events. However, given that significantly less than half of the instruments pulled for surgery are utilized and that total processing cost per instrument exceeds three dollars, careful review of what instruments are included in each tray and elimination of wasted resource allocation can result in significant cost savings without reducing safety.

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS: Mary M. Van Meter: Nothing to disclose; Rony Adam: Nothing to disclose.



13 Genetic determinants of pelvic organ prolapse in women of european american descent: The women's health initiative

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OBJECTIVES: Approximately 3-5% of U.S. women are affected by pelvic organ prolapse (POP), with European American women (EA) at particularly high risk. Recent evidence suggests a moderate genetic predisposition to POP, yet very few genetic loci have been identified. Thus, we used validated measurements of POP from the Women's Health Initiative (WHI) Hormone Therapy (HT) trial and extant genome wide genotyping data to perform a genome wide association study (GWAS) of POP in European American (EA) study participants.

MATERIALS AND METHODS: This study was performed using participant data from the baseline pelvic exam data (evaluated for the presence and severity of rectocele, cystocele, and uterine prolapse) for which genotype data were available. POP was classified as grades 0-3. Cases were defined as women with any POP (grades 1-3) or moderate/severe POP (grades 2-3). Women with grade 0 prolapse were classified as controls. WHI participants were genotyped on five different platforms; we therefore combined platform-specific logistic regression analyses evaluating 1000 genomes-imputed SNPs and POP (grade 0 vs. 1-3 and grade 0 vs. 2-3), adjusting for age at POP ascertainment, body mass index, parity, and global ancestry using fixed-effects meta-analysis.

RESULTS: A total of 1040 any POP cases, 72 moderate/severe POP cases, and up to 5124 controls were included in our final analyses. For any POP, we identified a genome-wide significant common (minor allele frequency = 43%) intergenic variant rs60934399 located 1.5kb upstream of several transcription factors and 4kb downstream of the LINC00557 gene. Each unit increase in the T allele vs. the G allele was associated with increased risk for POP with odds ratio (OR) of 1.35 (95% CI: 1.28, 1.42), p=3.7x10⁻⁸. Meta-analysis of severe POP did not yield genome-wide significant associations.

CONCLUSION: POP is multi-factorial, with a substantial, but currently underexplored genetic basis. Our study is the first to identify a genome-wide significant POP locus. Further studies are needed to expand power to find additional loci underlying POP.

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