TRACK: PRACTICE MANAGEMENT
Gender-affirming Chest Reconstruction: Does Hospital Volume Influence Admission Charges?

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PURPOSE: While several national databases are well equipped to analyze postoperative outcomes, there has been a paucity of research with nationally representative datasets analyzing the evolving landscape of insurance coverage and admission cost for gender-affirming surgery. The purpose of this study was to provide a descriptive analysis of the financial implications of undergoing gender-affirming top surgery.

METHOD: Retrospective cohort study was conducted of gender-affirming chest reconstruction performed between 2016 and 2019 using the Nationwide Ambulatory Surgery Sample. This is the largest all-payer surgery database of outpatient procedures performed in the United States. Financial data was adjusted for inflation and represented in 2020 US Dollars. High volume hospitals were defined as the 90th percentile of cases performed during the study interval, and highest volume hospitals were defined as the 95th percentile of cases performed during the study interval. Patients concurrently undergoing both top and bottom surgery were excluded.

RESULTS: During the study interval, 15272 patients underwent gender-affirming top surgery, of which 82.7% (n=12634) were transmale and 17.3% (n=2638) were transfemale. There were 691 hospitals performing gender-affirming top surgery over the last four years, with a median case volume of only 3 procedures. High volume hospitals at the 90th percentile performed 59 procedures over the study interval, and highest volume hospitals at the 95th percentile performed 104 procedures over the study interval. Hospital admission charges for top surgery have been slightly increasing over the years (p<.001, ρ=+0.165). High-volume hospitals (p<.001, $28304 vs $26458) and highest-volume hospitals (p<.001, $28476 vs $26836) charged significantly more than lower volume hospitals, however this trend has reversed in the last fiscal year. There is significant difference in charges between regions of the country (p<.001), with the Midwest having the lowest (median $24918) and the West having the highest (median $29679). Transmale procedures were charged significantly higher admission charges than transfemale procedures (p<.001, $28311 vs $25718). While we are uncertain why this might be the case, this trend was seen in all four regions of the United States. Academic hospitals charge significantly more than nonacademic hospitals (p<.001, $27946 vs $23007). Urban hospitals charged over twice as much as rural hospitals for gender-affirming top surgery (p<.001, $27953 vs $10755). Over the last four years, the percentage of self-pay patients significantly decreased from 9.1% to 4.3% (p<.001). Despite recent updates to CMS coverage guidelines, the percentage of patients utilizing government insurance for gender-affirming top surgery has been decreasing from 35.0% to 29.9% (p<.001), while the percentage of patients with commercial insurance coverage has significantly increased from 52.5% to 63.4% (p<.001). Patients with commercial insurance were billed significantly more for gender-affirming top surgery than patients with government insurance (p<.001, $29593 vs $26319).

CONCLUSION: High-volume and highest-volume hospitals charged patients significantly more than lower volume hospitals for gender-affirming chest surgery, however this trend has reversed in the last fiscal year. Rural hospitals charged patients significantly less than urban hospitals. Patients are increasingly seeking commercial insurance to undergo gender-affirming top surgery rather than government insurance.

TRACK: BREAST
Postsurgical Outcomes with Acellular Dermal Matrices for Two-stage Prosthetic Breast Reconstruction in 20,817 Patients

Presenter: Michael Wells
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PURPOSE: The use of acellular dermal matrices (ADM) for tissue expander breast reconstruction remains controversial with uncertain safety and efficacy profile. This study analyzes the rates and factors for reoperation and postoperative infection in patients who underwent tissue expander breast reconstruction with and without ADM. Methods Patients who underwent breast reconstruction
with and without ADM were identified from the NSQIP database utilizing CPT codes. Covariates included patient demographics, preoperative comorbidities, and operative characteristics, while outcomes of interest were postoperative infection and reoperation. A univariate and multivariate analysis were performed to identify predictors of adverse outcomes.

RESULTS: There were 8,334 patients in the ADM cohort and 12,451 patients who underwent tissue expander breast reconstruction without ADM. There were significantly fewer reoperations in the non-ADM cohort (5.4%) compared to the ADM cohort (7.7%) (p<0.0001), with infection and hematoma as the most common etiologies in both cohorts. Surgical infections were also more prevalent in the ADM cohort (4.7%) compared to the non-ADM cohort (3.6%) (p<0.0001). Univariate and multivariate analysis of the tissue expander breast reconstruction cohort revealed race, obesity, hypertension, smoking status, albumin, and operative time as predictive for infection risk, while race, obesity, hypertension, smoking, albumin, operative time, and age were significant for reoperation.

CONCLUSION: Our study of 20,817 patients revealed significantly higher risk of infection and reoperation in patients who underwent breast reconstruction utilizing ADM compared to those without ADM. Patients considering ADM for breast reconstruction should engage in discussion with their provider about complications, aesthetics, and cost.

TRACK: PRACTICE MANAGEMENT
Malpractice Claims in Plastic Surgery: Descriptive-Comparative-Predictive

Presenter: David Feldman, MD
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PURPOSE: Plastic Surgeons face unique issues with professional liability claims due to the nature of plastic surgery practice, in particular the mix of both reconstructive and cosmetic procedures. The relatively rare occurrence of a malpractice claim for any individual plastic surgeon makes it unlikely that techniques to reduce malpractice risk are evident. In this analysis we looked at ten-years of malpractice claims filed against plastic surgeons insured through The Doctors Company Group (TDCG). All claims and suits filed against TDCG insured plastic surgeons from 2009 to 2021 were analyzed and compared with claims against surgeons in other specialties over the same time frame. Data was stratified according to several different variables including patient demographics, case type, injury, and contributing factors/risk management issues. A logistic regression analysis was performed to identify those variables associated with medical malpractice payments. Of the 1,708 claims against plastic surgeons, 90% were on behalf of female patients, and the average age of a claimant was 45 years old. Comorbidities of claimants included smoking in 6.9% and obesity in 6.4%. Ninety-two percent of claimants had ambulatory surgery or a procedure. The top three surgeries in claims were breast reduction (21.8%), breast augmentation (17.2%), and breast reconstruction (11.8%). When compared to 7,202 non-plastic surgery claims, plastic surgery claims were more likely to concern the surgery itself (53.8% v 41.3%, p<.001), or the performance of a procedure (9.4% v 4.7%, p<.001). Non-plastic surgery claims were more likely to be diagnosis related (11.3% v 1.8%, p<.001). Cosmetic injury was most common in cosmetic breast surgery claims - augmentation (33.3%), and lift (28.1%), compared with reconstructive breast surgery claims - reconstruction (19.4%), and reduction (14.8%). Need for additional surgery was most common in claims involving breast reconstruction (52.7%). Contributing factors including selection of procedure or therapy, poor technique, and known complications were present in 86% of the plastic surgery claims compared with 91% of the non-plastic surgery claims (p<.001). In 38.8% of plastic surgery claims patients sought other providers due to dissatisfaction with their surgeon, a factor in only 17.1% of non-plastic surgery claims (p<.001). Factors that might have helped to preclude the bringing of a lawsuit typically involving communication with patients and family, were more common in plastic surgery claims (59.4%) than in non-plastic surgery claims (36.6%, p<.001). Specifically, there were unmet expectations in 14.4% of plastic surgery claims, but in only 3.8% of non-plastic surgery claims (p<.001). A similar percentage of non-plastic surgery claims closed with no indemnity payment (26.6%) as plastic surgery claims (25.3%) but there was a 3.7 times greater likelihood of a plastic surgery claim closing with payment when a documentation issue was present. This analysis points to the issues confronting plastic surgeons when considering malpractice risk reduction. Managing patient expectations is critical, especially when patients undergo cosmetic surgery. Breast surgery is the most litigious group of procedures plastic surgeons perform, and