



# Abstract: Predictors of Hospital Costs in the Self-Pay Rhytidectomy Patient: Analysis of 1,890 Patients

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Additionally, any asymmetry can usually be corrected or improved when it is detected through careful preoperative analysis and being aware of the prevalence of this abnormality.

Predictors of Hospital Costs in the Self-Pay Rhytidectomy Patient: Analysis of 1,890 Patients

Presenter: Anmol S. Chattha, BA

Co-Authors: Alexandra Bucknor, MBBS, MRCS, MSc; David Chi, BS; Austin D. Chen, BS; Samuel J. Lin, MD, MBA

Affiliation: Beth Israel Deaconess Medical Center / Harvard Medical School, Boston. MA

**INTRODUCTION:** Rhytidectomy is one of the most commonly performed cosmetic procedures by plastic surgeons. Increasing attention to the development of a high-value, low-cost healthcare system is a priority of U.S. healthcare policy makers as projections of healthcare costs in the U.S. are shown to be unsustainable. This study aims to analyze specific patient and hospital factors that may augment the marginal charges of the procedure.

**METHODS:** We conducted a retrospective cohort study using the National Inpatient Sample. Our cohort consists of self-pay, elective (non-emergent) patients aged over 18 who underwent rhytidectomy between 2013–2014. Mean marginal cost increase patient characteristics and outcomes were studied. Generalized linear modeling with gamma regression and a log-link function were performed along with estimated marginal means to provide cost estimates.

**RESULTS:** A total of 1,890 self-pay patients underwent rhytidectomy. Median cost was \$11,767 with an interquartile range of \$8,907 [\$6,976 – \$15,883]. The largest marginal cost increases were associated with postoperative hematoma (\$12,651; CI \$8,181-\$17,120), West coast region (\$7,539; 95% CI \$6,412-\$8,666) and combined rhinoplasty (\$7,824; 95% CI \$3,808-\$11,840). The two risk factors associated with the generation of highest marginal inpatient costs were smoking (\$4,147; 95% CI

\$2,804-\$5,490) and diabetes mellitus (\$5,622; 95% CI \$3,233-\$8,011). High volume hospitals had a decreased cost of -\$1,331 (95%CI -\$2,032 to -\$631).

**CONCLUSION:** Cost variation for inpatient rhytidectomy procedures is dependent on preoperative risk factors (diabetes and smoking), postoperative complications (hematoma) and regional trends (West region). Rhytidectomy surgery is highly centralized and increasing hospital volume significantly decreases costs. Clinicians and hospitals can use this information to discuss the drivers of cost in patients undergoing rhytidectomy.

Perceived Facial Aging: The Role of AGES (Advanced Glycation End Products)

Presenter: Jonathan Y. Lee, MD, MPH

Co-Authors: Hope Weissler, BS; Yan W. Ho, MD; Peter J. Taub, MD

Affiliation: University of Pittsburgh Medical Center, Pittsburgh, PA

INTRODUCTION: Advanced glycation end products (AGEs) are a diverse group of macromolecules that are formed during the nonenzymatic glycation of proteins, lipids, and amino acids. High levels of AGEs can contribute to pathologic changes in all tissues, including skin. Elevated levels of AGEs can result from endogenous (aging, diabetes) and exogenous (dietary consumption of AGEs, UV irradiation, smoking) exposures; however, aging and diet are the main contributors. The authors aimed to assess whether serum levels of two AGEs, serum n-carboxymethyllysine (sCML) and serum methyl-glyoxal (sMG), were associated with perceived facial age.

**METHODS:** Patients 50 years-of-age or older and diagnosed with metabolic syndrome were recruited. A 5-view, standardized set of facial photographs for each patient was evaluated by a group of physicians specializing in facial rejuvenation (two plastic surgeons, two facial plastic surgeons, two dermatologists, and one oculoplastic surgeon). Raters assigned facial aging points in five anatomic areas using a validated facial grading scale. Raters also assigned a numeric perceived age for each patient. Patient serum levels of CML