

Learning Objectives

Evaluation of Annual Temporal Trends in Costs and Out-of-pocket Expenses of Transsphenoidal Pituitary Surgery in the United States

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Results (continued)

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There were no significant differences in out-of-pocket To improve understanding of trends in costs related to surgery expenses associated with transsphenoidal pituitary surgery during this time (from \$2,355.49 in 2010 to \$2,618.66 in 2014, p=0.27) Introduction Summary of average costs (Mean±SD) of transsphenoidal pituitary surgery techniques from Increased attention has been devoted to the need for 2010 to 2014, and corresponding percentage improved efficiency in health care delivery systems, change over time through optimizing value and patient outcomes while at the same time reducing costs. Till date, no study **Overall total payments** nationwide in scope has examined temporal trends in Microscopic: from 31,024.76±15,676.06 in 2010 to direct-costs of transsphenoidal pituitary surgery. 34,636.06±17,968.57 in 2014; 11.64% change; p<0.001 Endoscopic: from 34,849.95±18,686.72 in 2010 to 40,230.75±21,091.19 in 2014; 15.44% change; p<0.001 All transsphenoidal: from 32,415.73±16,925.64 in 2010 Methods to 37,942.27±20,053.38 in 2014; 17.05% change; p<0.001 Truven-Marketscan 2010-2014 database was accessed and trends in costs of transsphenoidal pituitary surgery Hospital/facility payments were analyzed. Standard descriptive techniques and linear Microscopic: from 23,023.86±13,955.12 in 2010 to regression were used to analyze costs trends over time. 26,934.69±16,196.06 in 2014; 16.99% change; p<0.001 Endoscopic: from 25,551.90±16,020.40 in 2010 to 31,112.03±18,652.15 in 2014; 21.76% change; p<0.001 Results All transsphenoidal: from 23,943.15±14,782.91 in 2010 to 29,403.32±17,799.13 in 2014; 22.80% change; p<0.001 Annual trends in costs associated with transsphenoidal pituitary surgery showed an increase in overall total costs per case from \$32,415.73 in 2010 to \$37,942.27 in 2014, **Physician payments** an approximate increase of 17.05% (p<0.001). Microscopic: from 4,521.06±4,078.45 in 2010 to 4,464.14±3,007.16 in 2014; -1.26% change; p=0.82 *Endoscopic*: from 5,196.05±4,680.48 in 2010 to As hospital/facility costs accounted for 75.85% of overall 4,796.01±3,976.49 in 2014; -7.70% change; p=0.15 total costs, it was not surprising that hospital/facility costs All transsphenoidal: from 4,766.51±4,317.35 in 2010 to also significantly increased during this period from 4,660.26±3,613.58 in 2014; -2.23% change; p=0.56 baseline of \$23,943.15 in 2010 to \$29,403.32 in 2014 representing an increase of approximately 22.80% (p<0.001). Notably, the change in physician payments from \$4,546.45 in 2010 to \$4,445.11 in 2014 was not significant (p=0.56).



Results (continued)

Out-of-pocket payments

<u>*Microscopic*</u>: from 2,405.99 \pm 5,868.29 in 2010 to 2,564.85 \pm 3,636.79 in 2014; 6.60% change; p=0.56 <u>*Endoscopic*</u>: from 2,264.91 \pm 4,917.84 in 2010 to 2,657.45 \pm 7,174.63 in 2014; 17.33% change; p=0.19 <u>*All transsphenoidal*</u>: from 2,355.49 \pm 5,544.43 in 2010 to 2,618.66 \pm 5,951.10 in 2014; 11.17% change; p=0.27

Conclusions

Our results indicate increasing total costs of transsphenoidal pituitary surgery driven mostly by increasing hospital/facility costs.

Given the widespread adoption and utilization of transsphenoidal techniques in pituitary surgery and the need to lower health-care costs, it is important for healthcare providers and policy makers to better understand factors underlying cost increases to aid in formulating effective cost-reduction strategies.