

**CLINICAL OUTCOMES AFTER SLEEVE GASTRECTOMY (SLEEVE) VARY ACCORDING TO HEALTH INSURANCE CARRIER: SELF-PAY VS PRIVATE INSURANCE VS MEDICAID VS MEDICARE IN 8,393 BOLD DATABASE PATIENTS**

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**BACKGROUND:**

Post-operative weight loss and resolution of obesity comorbidities following sleeve gastrectomy are well-understood. Previous reports have identified differences in baseline weight, BMI and weight-related medical problems according to type of health insurance. Nevertheless, it is unknown whether or not outcomes following bariatric surgery vary by health insurance carrier. The objective of this study was to identify health insurance-related variations in weight loss and resolution of obesity comorbidities following sleeve gastrectomy.

**METHODS:**

Data from 8,393 SLEEVE patients in the Surgical Review Corporation’s BOLD database was analyzed retrospectively in four groups: Medicaid (n=372), Medicare (n=304), Private Insurance (n=5,911), and Self-Pay (n=1,806). Weight, weight loss, BMI and prevalence of obesity comorbidities in each group were tabulated at 2, 6, 12, 18, 24 and 36 months post-operatively. Statistical analysis was performed with General Linear Models that included baseline and post-operative data and were modified for binomial distribution of dichotomous variables. Pair-wise comparisons of results for Medicaid, Medicare, Private Insurance and Self-Pay versus each other were made at each interval.

**RESULTS:**

**Table 1.** Weight loss, BMI, and select obesity co-morbidities at 12, 18, or 24 months following sleeve gastrectomy.

	Months	Self-Pay	Private	Medicare	Medicaid	p-value
<b>Weight loss (kg)</b>	24	45.4+25.5	45.7+-19.8	39.3+-15.9	44.4+-21	<b>0.01&lt;p&lt;0.05</b>
<b>BMI</b>	24	30.5+-8	34.8+-8.9	38.6+-7.4	41.6+-10.5	<b>0.01&lt;p&lt;0.05</b>
<b>Abdominal hernia (%)</b>	24	0	10.09	0.09	18.18	<b>p&lt;0.0001</b>
<b>GERD (%)</b>	24	46.88	33.94	20.83	64.29	<b>p&lt;0.05</b>
<b>HTN (%)</b>	18	25	36.37	49.15	30.88	<b>p&lt;0.05</b>
<b>Panniculitis (%)</b>	18	11.73	9.12	16.95	14.71	<b>p&lt;0.001</b>
<b>Cholelithiasis (%)</b>	18	14.8	22.48	25.42	29.41	<b>p&lt;0.05</b>
<b>Musculoskeletal pain (%)</b>	18	21.94	28.77	54.24	25	<b>0.01&lt;p&lt;0.05</b>
<b>Impaired functional status (%)</b>	18	0.51	1.85	16.95	1.47	<b>p&lt;0.01</b>
<b>Diabetes mellitus (%)</b>	24	0	13.76	9.09	9.09	<b>p&lt;0.0001</b>

**CONCLUSION:** Outcomes after sleeve gastrectomy vary significantly by health insurance status. Self-Pay patients' results were superior in weight loss, BMI, cholelithiasis and resolution of hypertension, diabetes, musculoskeletal pain, and impaired functional status. This may be related to personal motivation in this population. Private Insurance patients had the greatest resolution of panniculitis and performed generally second to Self-Pay patients.

BMI, abdominal hernia, GERD and cholelithiasis were highest among Medicaid patients, while weight loss equaled Self-Pay and Private. Medicare patients experienced the least weight loss and persistently lower resolution of nearly all comorbidities except GERD and diabetes. This suggests that obesity-years may be a factor. Knowledge of these health insurance variations, may facilitate surgical decision making with regard to patient selection for sleeve gastrectomy.