## Rowan University Rowan Digital Works

Rowan-Virtua Research Day

23rd Annual Research Day

May 2nd, 12:00 AM

## Pre-Operative Risk of Medical Complications Varies by Health Insurance Carrier in Moderately Obese Women: Medicaid v Medicare v Private v Self-Pay

Paul Osterdahl D.O. *Rowan University* 

Melissa Gott D.O. *Rowan University* 

Amanda Sundling D.O. *Rowan University* 

Gus J. Slotman M.D. *Rowan University* 

Follow this and additional works at: https://rdw.rowan.edu/stratford\_research\_day

Part of the Gastroenterology Commons, Health and Medical Administration Commons, Health Services Administration Commons, Health Services Research Commons, Surgery Commons, and the Women's Health Commons

Let us know how access to this document benefits you - share your thoughts on our feedback form.

Osterdahl, Paul D.O.; Gott, Melissa D.O.; Sundling, Amanda D.O.; and Slotman, Gus J. M.D., "Pre-Operative Risk of Medical Complications Varies by Health Insurance Carrier in Moderately Obese Women: Medicaid v Medicare v Private v Self-Pay" (2019). *Rowan-Virtua Research Day*. 45. https://rdw.rowan.edu/stratford\_research\_day/2019/may2/45

This Poster is brought to you for free and open access by the Conferences, Events, and Symposia at Rowan Digital Works. It has been accepted for inclusion in Rowan-Virtua Research Day by an authorized administrator of Rowan Digital Works.



**Background:** Greater than 40% of American women are obese. Every surgical practice must manage these medically challenging patients. Clinical variation by health insurance status in mixed sex bariatric surgery populations is reported. However, investigating moderately obese female surgical patients by insurance status is unknown

**Methods:** Pre-operative data on 53,292 female patients from the Surgical Review Corporation's BOLD database about to undergo adjustable gastric banding procedure was examined by insurance carrier. Data analyzed included age, weight, BMI, and 34 obesity-related medical conditions.

Table 1: Age, weight, BMI, and Race by insurance carrier for women undergoing adjustable gastric   banding procedures							
	Medicaid	Medicare	Private Insurance	Self-pay	p-value		
Age	42.49	57.45	44.33	43.02	<0.0001		
Weight (kg)	124.5	120.2	119.3	118.6	<0.0001		
BMI	46.67	45.59	44.43	43.6	<0.0001		
AfrAmer	19.74%	12.13%	12.69%	4.53%	<0.0001		
Caucasian	60.09%	75.07%	73.5%	85.26%	<0.0001		
Other	6.77%	8.19%	7.38%	4.59%	<0.0001		
Asian	0.14%	0.12%	0.21%	0.24%	<0.0001		
Hispanic	13.26%	4.49%	5.38%	6.22%	<0.0001		
BMI = Body Mass Index AfrAmer = African American							

BIVII = Body Mass Index, AfrAmer = African America

## **Pre-Operative Risk of Medical Complications Varies by Health Insurance Carrier in Moderately Obese** Women: Medicaid v Medicare v Private v Self-Pay

Paul Osterdahl, DO<sup>1</sup>, Melissa Gott, DO<sup>2</sup>, Amanda Sundling, DO<sup>3</sup> and Gus J Slotman, MD<sup>4</sup> Departments of Obstetrics & Gynecology<sup>1</sup> and Surgery<sup>2</sup>, **Inspira Health Network** 1505 West Sherman Avenue, Vineland, NJ

Table 2: Cardio-Pulmonary Comorbidities by Insurance Carrier for Women Undergoing AdjustableGastric Banding Procedures						
	Medicaid	Medicare	Private Insurance	Self-pay	p-value	
Angina	3.21	4	1.67	1.51	<0.0001	
Asthma	25.94	22.43	15.74	12.65	<0.0001	
CHF	2.85	4.98	0.82	0.48	<0.0001	
History of DVT/PE	3.71	4.64	2.11	1.47	<0.0001	
HTN	55.38	72.59	51.01	40.56	<0.0001	
Ischemic HD	4.35	9.07	2.41	1.61	<0.0001	
OHS	1.92	3.73	1.28	0.86	<0.0001	
OSA	43.55	44.61	33.98	25.06	<0.0001	
PHTN	3.92	4.64	3.53	2.02	<0.0001	
PVD	1.92	2.29	0.68	0.24	<0.0001	

CHF = Congestive Heart Failure; DVT = Deep Venous Thrombosis; PE = Pulmonary Embolism; HTN = Hypertension; HD = Heart Disease; LE = Lower Extremity; OSA = Obstructive Sleep Apnea; OHS = Obesity Hypoventilation Syndrome; PHTN : Pulmonary Hypertension; PVD = Peripheral Vascular Disease

Table

able 3: Metabolic and Endocrine Comorbidities by Insurance Carrier for Women Undergoing Adjustable Gastrinc Banding Procedure							
	Ivieuicaiu	Ivieuicare	Private insurance	Self-pay	p-value		
DM	33.86	45.28	24.85	19.4	<0.0001		
Dyslipidemia	38.28	53.35	36.29	32.05	<0.0001		
Gout	7.13	5.04	1.93	0.82	<0.0001		
Menstrual Irregularities	27.94	34.83	25.75	20.12	<0.0001		
PCOS	4.85	1.92	6.26	6.21	<0.0001		
Pseudotumor Cerebri	2.42	1.62	1.46	1.1	0.007		
DM = Diabetes Mellitus: PCOS = Polycystic Ovarian Syndrome							

Divi = Diabetes Mellitus; PCOS = Polycystic Ovarian Syndrom

Table 4: Abdominal and Hepatobiliary Comorbidities by Insurance Carrier for Women Undergoing Adjustable Gastric						
Banding Procedures						
	Medicaid	Medicare	Private Insurance	Self-pay	p-value	
Abdominal Hernia	6.41	6.32	3.9	3.19	<0.0001	
odominal Panniculus	9.41	5.99	4.69	3.77	<0.0001	
Cholelithiasis	26.09	29.76	19.33	15.63	<0.0001	
GERD	51.67	50.6	43.85	39.9	<0.0001	
Liver Disease	5.27	4.98	4.24	2.43	<0.0001	
Stress Urinary Incontinence	30.93	33.21	25.27	23.86	<0.0001	

GERD = Gastroesophageal Reflux Disease

Table 5: Somatic Comorbidities by Insurance Carrier for Women Undergoing Adjustable Gastric Banding Procedures					
	Medicaid	Medicare	Private Insurance	Self-pay	p-value
Back Pain	58.95	55.91	45.46	39.56	<0.0001
Fibromyalgia	6.34	9.47	2.86	2.23	<0.0001
Impaired Functional Status	6.06	7.97	1.32	0.75	<0.0001
Lower Extremity Edema	30.36	35.59	22.69	18.85	<0.0001
Musculoskeletal Pain	45.12	53.74	38.76	33.49	<0.0001
Table 6: Psychological and Behavioral Comorbidities by Insurance Carrier for Women Undergoing Adjustable Gastric Banding Procedures					
	Medicaid	Medicare	Private Insurance	Self-pay	p-value
Alcohol Use	17.53	19.37	32.63	32.09	<0.0001
Depression	46.9	43.63	33.3	34.38	<0.0001
Mental Health Diagnosis	20.67	16.07	9.36	8.6	<0.0001
Psychological Impairment	27.51	23.04	14.18	13.58	<0.0001
Substance Abuse	0.5	0.4	0.31	0.38	0.5237
Tobacco Use	8.91	6.02	5.93	6.17	<0.0001
Unemployment	47.26	71.46	9.73	9.05	<0.0001

**Conclusions:** There is significant discordance in the pre-operative clinical characteristics of moderately obese women when stratified by insurance status. Asthma, abdominal-hepatobiliary conditions, and psychological/behavioral issues predominate among Medicaid females. Medicare insured obese women suffer most from cardiopulmonary illnesses, diabetes and dyslipidemia, cholelithiasis, and somatic disabilities. Females with private insurance consume the most alcohol, smoke the least, have the lowest rates of depression, and have no increased incidence of serious weight related medical problems. Self-Pay obese patients appear to be the healthiest insurance group. Mechanisms underlying these findings are not clear. This advance knowledge should be considered in surgery on women with moderate obesity.

dities by Insurance Carrier for Women Undergoing Adjustable Gastric Banding Procedures						
Medicaid	Medicare	Private Insurance	Self-pay	p-value		
58.95	55.91	45.46	39.56	<0.0001		
6.34	9.47	2.86	2.23	<0.0001		
6.06	7.97	1.32	0.75	<0.0001		
30.36	35.59	22.69	18.85	<0.0001		
45.12	53.74	38.76	33.49	<0.0001		