



Rethinking advantage risk profile of ESG vs SG: an MBSAQIP analysis

Abdelrahman A. Nimeri, MD, FACS, FASMBS Dipl ABOM
Director, Bariatric Surgery Brigham & Women's Hospital
Secretary/Treasurer, IFSO



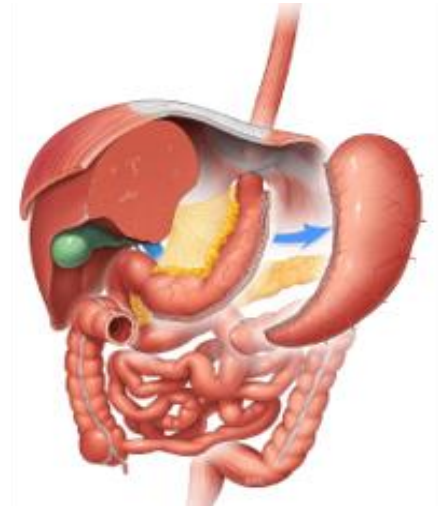
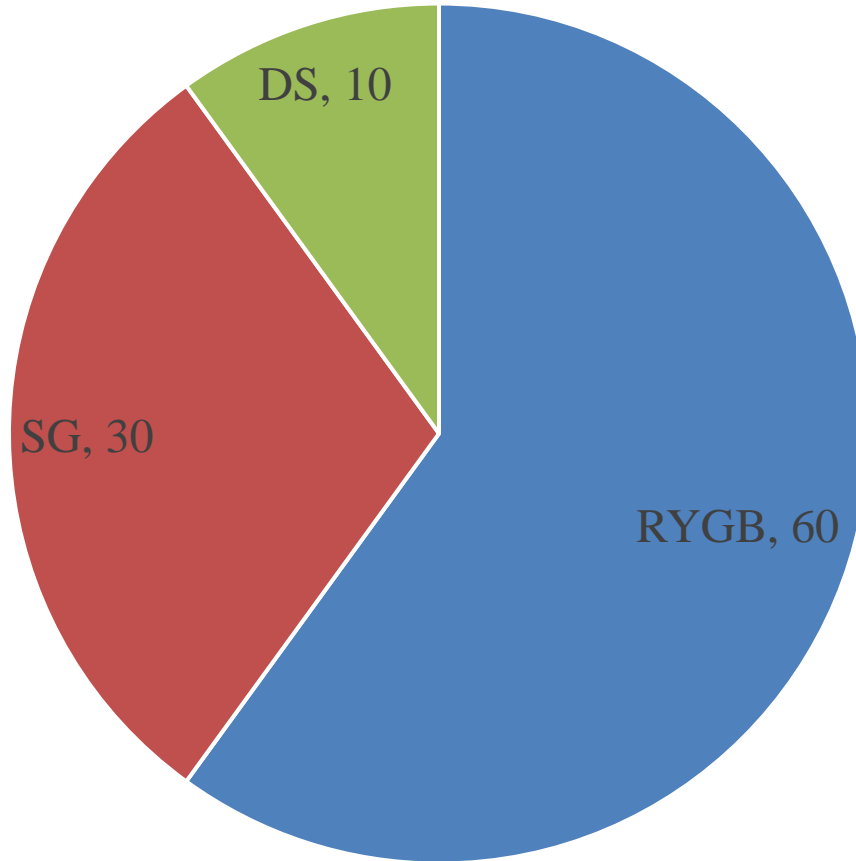
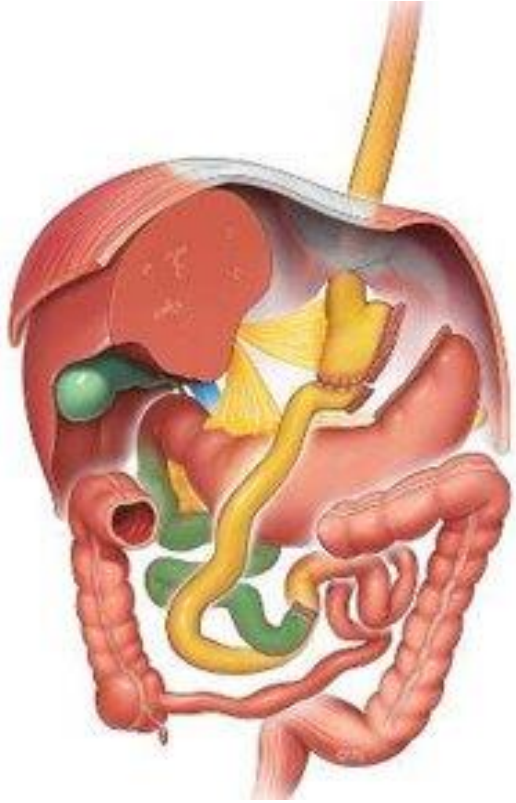
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Procedure disclosure

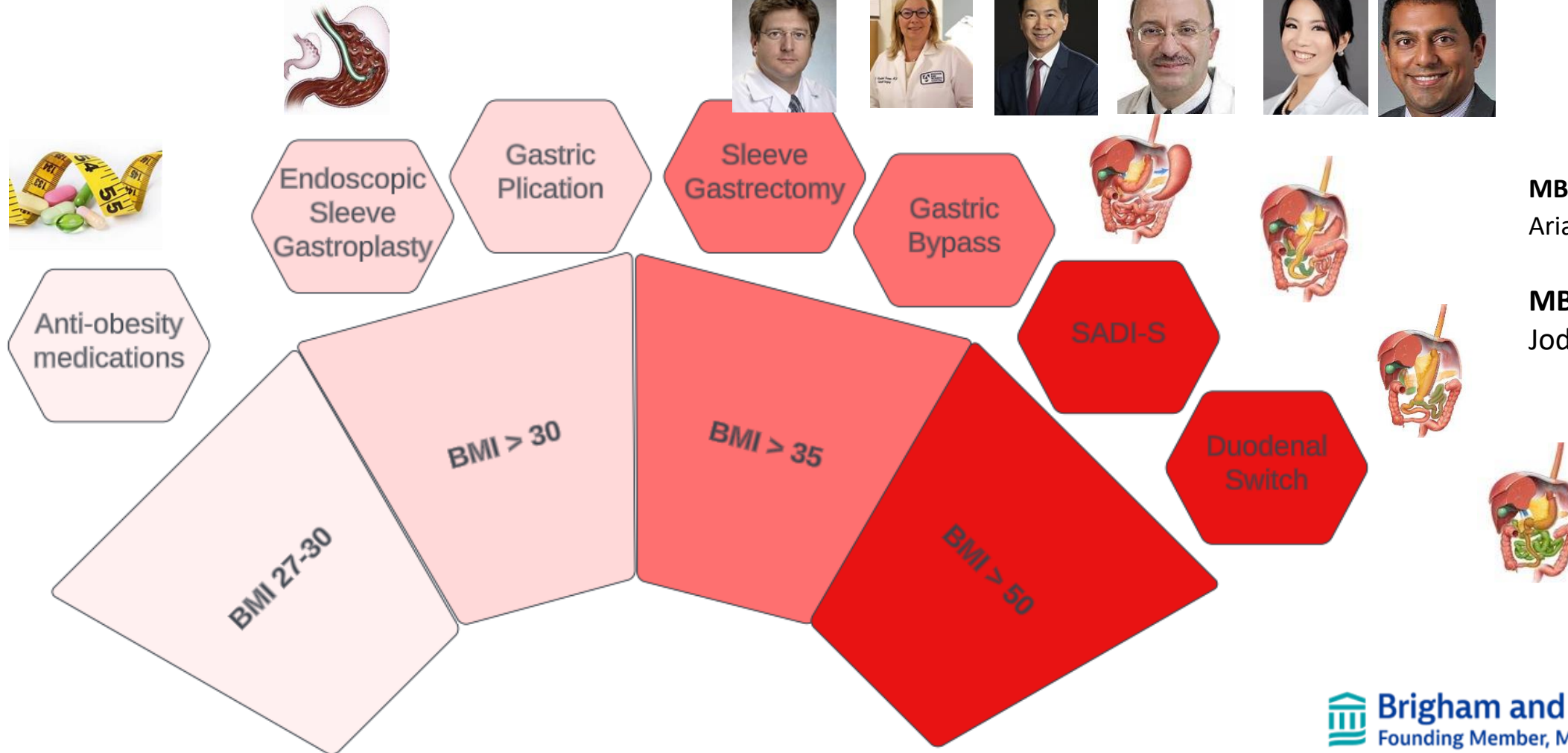


Center for Weight Management and Wellness



MBS Coordinator: Meghan Ariagno, MBA, RD

MBS Clinical Reviewer: Jody Allen, LPN

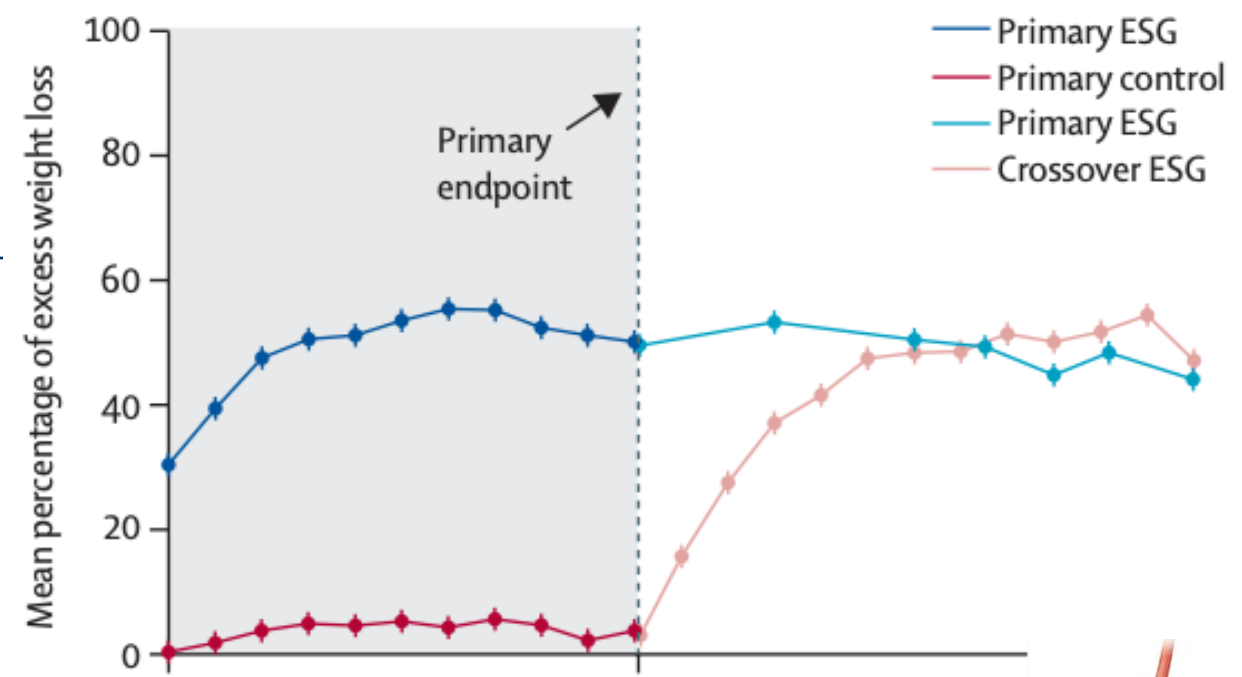


Endoscopic sleeve gastroplasty for treatment of class 1 and 2 obesity (MERIT): a prospective, multicentre, randomised trial

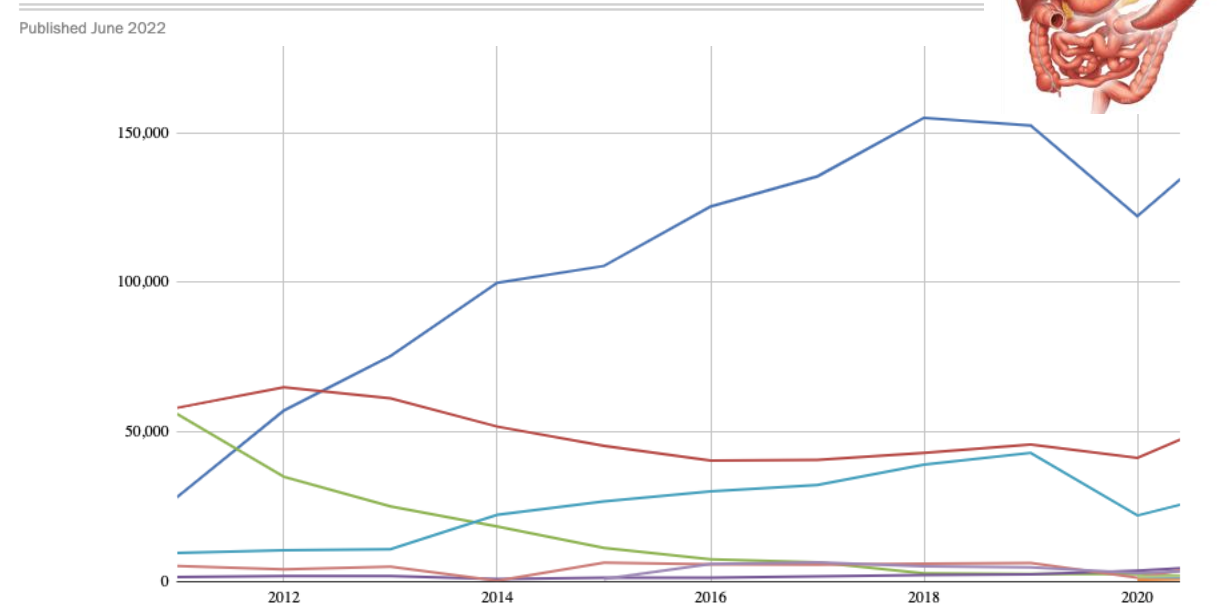
Lancet. 2022 Aug 6;400(10350):441-451

Barham K Abu Dayyeh, Fateh Bazerbachi, Eric J Vargas, Reem Z Sharaiha, Christopher C Thompson, Bradley C Thaemert, Andre F Teixeira, Christopher G Chapman, Vivek Kumbhari, Michael B Ujiki, Jeanette Ahrens, Courtney Day, the MERIT Study Group, Manoel Galvao Neto, Natan Zundel, Erik B Wilson

- *LSG is the most common MBS & ESG has become popular.*
- **We aim to compare outcomes of ESG vs LSG using the MBSAQIP 2020-2022 [387,901 LSG & 1785 ESG], were propensity matched 1:1**
- **Primary outcome** was 30-day complications.
- **Secondary outcome** 30-day ED visits, dehydration.



Estimate of Bariatric Surgery Numbers, 2011-2021



MBSAQIP 2020-2022 [387,901 LSG & 1785 ESG],
LSG patients were different than patients undergoing ESG

- ***LSG had less females, more Blacks & Hispanics [81.6% [LSG/86.4% ESG] $p < 0.001$, Whites [LSG 52.7% ESG 55.5%, Black [LSG 21.7% ESG 17% & Hispanics LSG 19.2% ESG 13% $p < 0.001$].***
- ***LSG patients were heavier & sicker BMI [LSG 44.8 ESG 39.5 ESG] $p < 0.001$, ASA I-II [LSG 20% ESG 44.3%] $p < 0.001$, T2DM [LSG 20.4%/ESG 12.9%] $p < 0.001$, GERD [LSG 25.8% ESG 28%] $p < 0.03$, VTE hx [LSG 2.4% ESG 1.4%] $p < 0.006$***



MBSAQIP 2020-2022 [387,901 LSG & 1785 ESG],

Results

	LSG	ESG	p-value
Outpatient treatment for dehydration	13222 (3.41%)	78 (4.37%)	0.672
ED utilization	26784 (6.9%)	80 (4.48%)	0.038
Composite 30-day complications	8098 (2.1%)	35 (1.96%)	0.765

- **Multivariable analysis: ESG patients had lower ED visits OR 0.63 95% CI [0.50-0.79 p<0.001] & higher odds for outpatient treatment for dehydration OR 1.28 95% CI [1.02-1.60 p=0.035].**

MBSAQIP 2020-2022 [387,901 LSG & 1785 ESG],

1:1 matching (Age and BMI; 1785 per arm)

	LSG	ESG	p-value
Age (IQR)	45.8 (38-53)	45.3 (38-53)	0.147
BMI (IQR)	39.5 (34.1-44.0)	39.5 (34.0-44.0)	0.947

- **1:1 matching ESG lost the protective effect on ED utilization OR 0.84 95% CI [0.62-1.15, P=0.276].**
- **ESG patients remained still had significantly higher odds for outpatient treatment for dehydration OR 1.5 95% CI [1.05-2.14, P=0.025].**
- **ESG & LSG had similar 30-day complications OR 1.34 95% CI [0.81-2.22, P=0.26].**



Take home message

- *Matched MBSASQIP analysis 1:1 of ESG vs SG showed that ESG patients had higher need for outpatient treatment for dehydration & did not show that ESG is safer than SG underscoring that ESG & SG are done on different patient populations.*
- *Further investigation into patient eligibility and periprocedural management is needed to optimize ESG outcomes.*