

AMBULATORY BARIATRIC SURGERY: WHEN IS IT FEASIBLE? OUR PRELIMINARY EXPERIENCE IN OVER 250 PATIENTS

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XXVI
IFSO WORLD
CONGRESS
OF BARIATRIC
& METABOLIC SURGERY



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Introduction

There have been reports of Short Hospital Stay (<36hr) in Bariatric Surgery for more than 20 years.

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Optimizing Outcomes in Bariatric Surgery

ORIGINAL ARTICLES

Optimizing Outcomes in Bariatric Surgery *Outpatient Laparoscopic Gastric Bypass*

Todd M. McCarty, MD,† David T. Arnold, MD,* Jeffrey P. Lamont, MD,* Tammy L. Fisher, RN,*
and Joseph A. Kuhn, MD**



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Hospital length of stay was analyzed for the entire patient population and revealed an average length of stay of 1.8 days. Of the 2000 patients, 84% (1669) were discharged within 23 hours based on achievement of physical and laboratory criteria (Fig. 1). Of the patients who were discharged as an outpatient, 34 (1.7%) were readmitted within 30 days. No significant difference was noted in the 30-day readmissions rates comparing those patients discharged within 24

- Hospital Stays near 24hr
- Lab analysis prior Discharge
- 1.7% Readmission

TABLE 4. Multivariate Analysis for Predictors of 23-H Discharge, Unadjusted and Adjusted for Surgeon Experience (>50 cases)

Logistic Regression	Unadjusted			Adjusted		
	OR	RR (95% CI)	P	OR	RR (95% CI)	P
Sex	1.461	1.28 (1.04–1.54)	0.019*	1.371	1.23 (0.99–1.50)	0.065
<u>Body mass index (kg/m²)</u>	1.647	1.34 (1.11–1.57)	0.003*	1.683	1.35 (1.11–1.59)	0.003*
Learning curve	2.444	1.64 (1.42–1.85)	<0.0001*	1.1	1.04 (0.95–1.19)	0.08
<u>>4 comorbidities</u>	1.924	1.53 (1.32–1.75)	<0.0001*	1.680	1.42 (1.19–1.65)	0.0001*
Steroid bolus	1.543	1.32 (1.15–1.49)	0.0002	1.288	1.18 (1.01–1.36)	0.038*

*The reference group for logistic regression analysis.
OR, odds ratio; RR, relative risk; CI, confidence interval.





Introduction

Nevertheless, it was not supported by peers due to the higher perioperative complication risks reported so far.

ORIGINAL ARTICLE

Is Ambulatory Laparoscopic Roux-En-Y Gastric Bypass Associated With Higher Adverse Events?

John M. Morton, MD, MPH,* Deborah Winegar, PhD,† Robin Blackstone, MD,‡ and Bruce Wolfe, MD§

TABLE 2. Patient Demographics by LOS

Baseline Characteristics	LOS = 0 (n = 507)	LOS = 1 (n = 9,513)	LOS = 0/1 (n = 10,020)	LOS = 2 (n = 30,592)	LOS = 3 (n = 9,047)	LOS = 4 (n = 2,129)	P*
Age at surgery, mean (SD), yr	44.2 (11.28)	44.4 (11.50)	44.3 (11.48)	45.0 (11.34)	46.1 (11.61)	48.0 (11.65)	<0.0001
BMI, mean (SD), kg/m ²	47.2 (7.18)	47.4 (7.69)	47.4 (7.66)	47.7 (7.74)	48.4 (8.39)	49.2 (9.23)	<0.0001
Sex: Female	398 (78.5%)	7,447 (78.3%)	7,845 (78.3%)	24,146 (78.9%)	7,124 (78.7%)	1,596 (75.0%)	0.0007
Race: White	390 (76.9%)	7,113 (74.8%)	7,503 (74.9%)	24,202 (79.1%)	6,986 (77.2%)	1,583 (74.4%)	<0.0001
Insurance: Private	447 (88.2%)	8,425 (88.6%)	8,872 (88.5%)	26,569 (86.8%)	7,512 (83.0%)	1,674 (78.6%)	<0.0001
No. comorbidities: ≥5	178 (35.1%)	3,430 (36.1%)	3,608 (36.0%)	11,853 (38.7%)	3,746 (41.4%)	1,038 (48.8%)	<0.0001

* P values for the comparison between LOS groups were calculated using the χ^2 test for categorical variables and the Kruskal-Wallis test for continuous variables.





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CONCLUSIONS

This population-based study demonstrates significantly increased risk of 30-day mortality for LRYGB patients discharged 1 day or less, with a trend toward increased risk of 30-day serious complications. Patients discharged on an ambulatory basis had a 13-fold increased risk of mortality when compared with the reference LOS of 2 days. In addition, an ambulatory discharge was associated with a trend toward increased serious complication (OR: 1.9). **Of note, all ambulatory LRYGB deaths were cardiac in origin.** Finally, patients discharged with an LOS of 1 day had twice the risk of mortality compared with those discharged at 2 days. When combining LOS of 0 and 1 day to represent short-stay LOS, a pronounced increase in mortality was noted (OR: 2.56; $P = 0.0052$) in reference to the standard LOS of 2 days. Causes of death for LOS of 0 and 1 day demonstrated cardiac, pulmonary embolus, sepsis, and respiratory failure predominately.

- 30d complication rate slightly higher
- Hospital Stay with LOWER risk: 48hs
- Mortality: ONLY DUE TO CARDIOLOGICAL ISSUES





Introduction

However, COVID19 Pandemic drastically reduced bariatric procedures volumen globally and forced Specialized Bariatric Centers to optimize Protocols and Resources to achieve a

To Shorten Hospital Stay



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Objective:

To demonstrate the Non-Inferiority of Ambulatory Bariatric Surgery (ABS) in selected patients, in comparison with Conventional Hospital Stays (>24hs)

Design:

Multicentric, Retrospective, Cohort Study



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Methods:

- March 2020 to December 2023
- 125 consecutive patients each group
- Group 1 (G1): Ambulatory Bariatric Surgery
- Group 2 (G2): Conventional Hospital Stay >24hr (CHS)
- Recruiting Centers:
 - CITOS Paraná – Argentina
 - CITOS Santa Fe – Argentina
 - Lo Curro Clinic – Santiago, Chile
 - Huinganal Clinic – Santiago, Chile





Ambulatory Bariatric Surgery Recruitment Criteria:

- Anesthetic PreOp Interview (7d prior)
- Normal Cardio-Respiratory (No Severe SAHOS)
- BMI <45 (except male young and healthy pts)
- PreOp Weight Loss >10%
- Operative Time <90min
- Procedure Start before 10am
- Early Deambulation and Liquid Tolerance within 4-5hr PostOp
- Overnight in same city





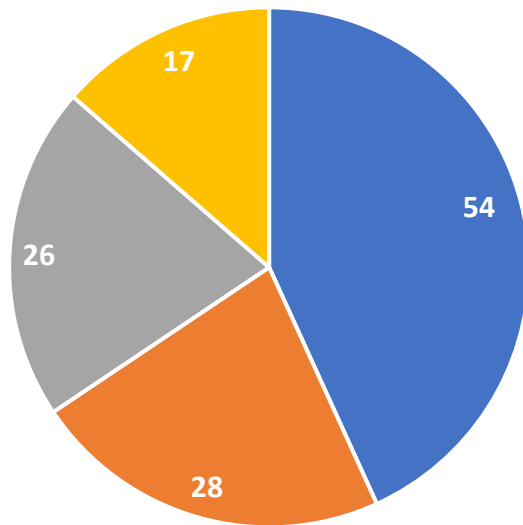
Variables to Assess:

- Hospital Stay (in hours)
- Re Admission rate
- 30d Complication rate
- 30d Mortality rate
- Analgesia Requirement (in morphinic equivalents)
- PostOp Pain at Discharge (Visual-Analogical Scale)



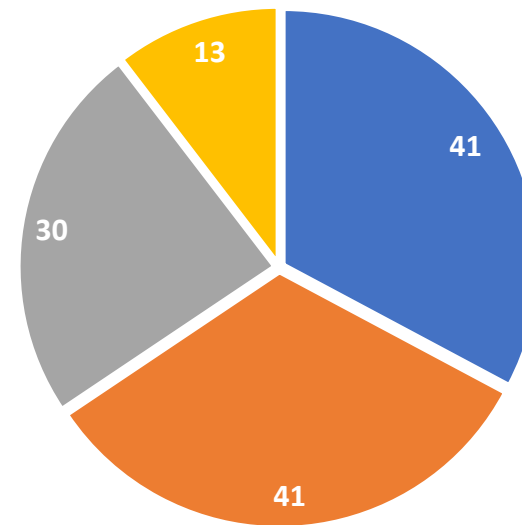


Ambulatory Group



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Conventional Stay Group

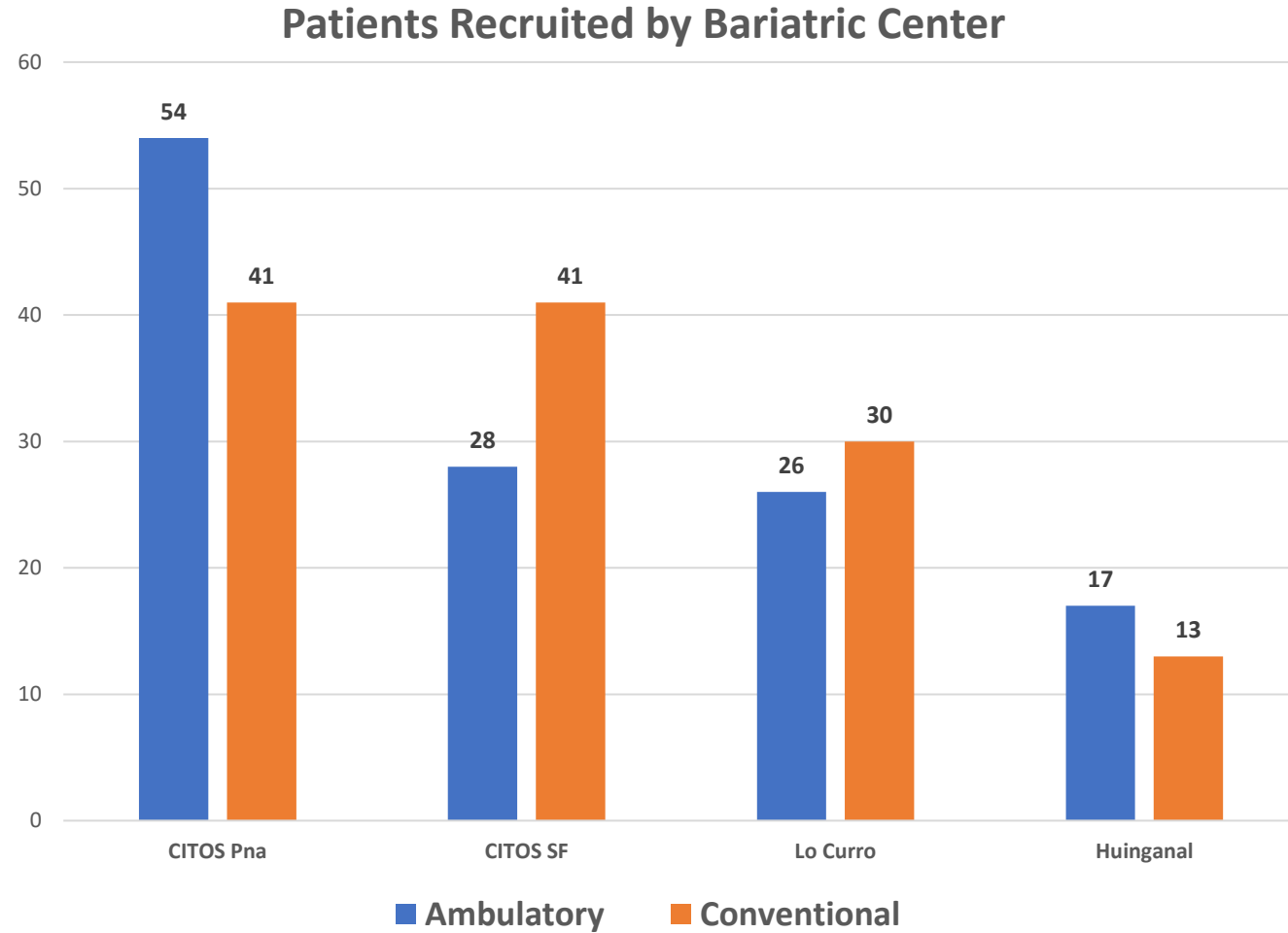


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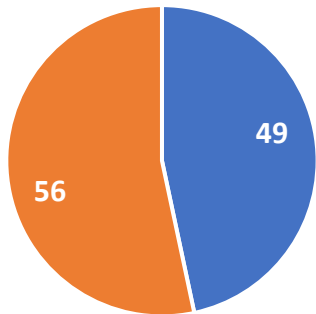






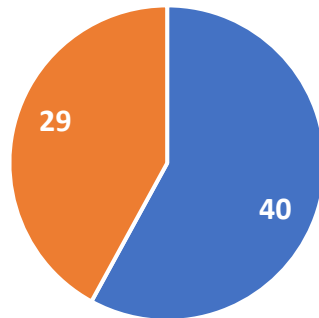
Surgical Technique by Bariatric Center

CITOS Pna



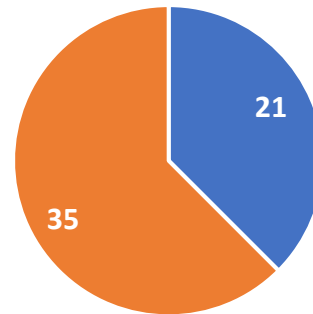
■ Sleeve ■ RYGB

CITOS SF



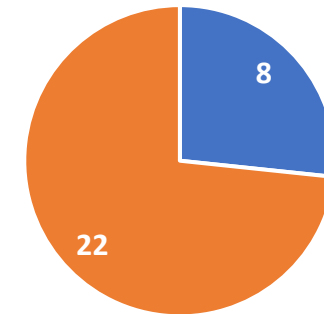
■ Sleeve ■ RYGB

Lo Curro



■ Sleeve ■ RYGB

Huinganal

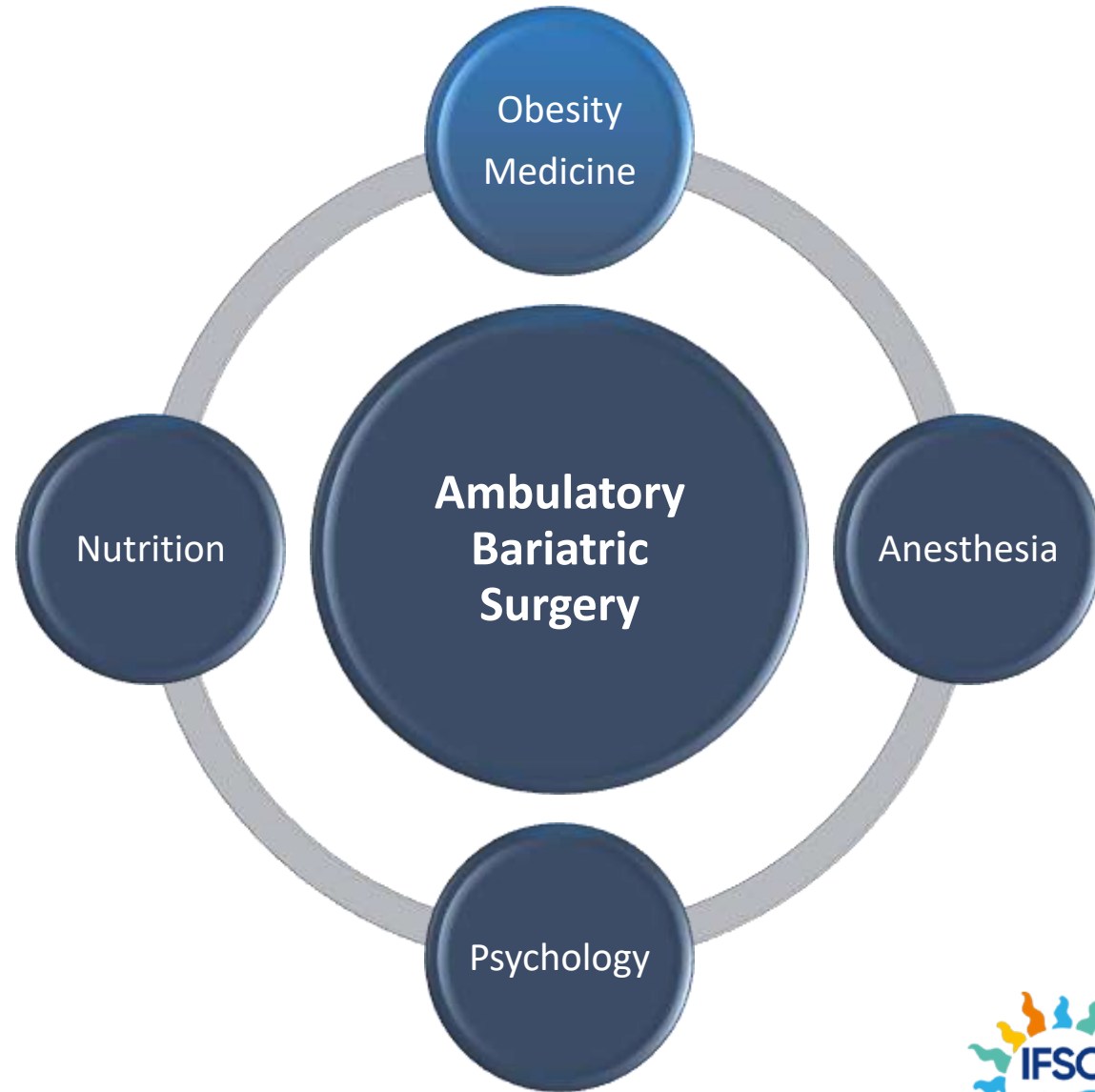


■ Sleeve ■ RYGB



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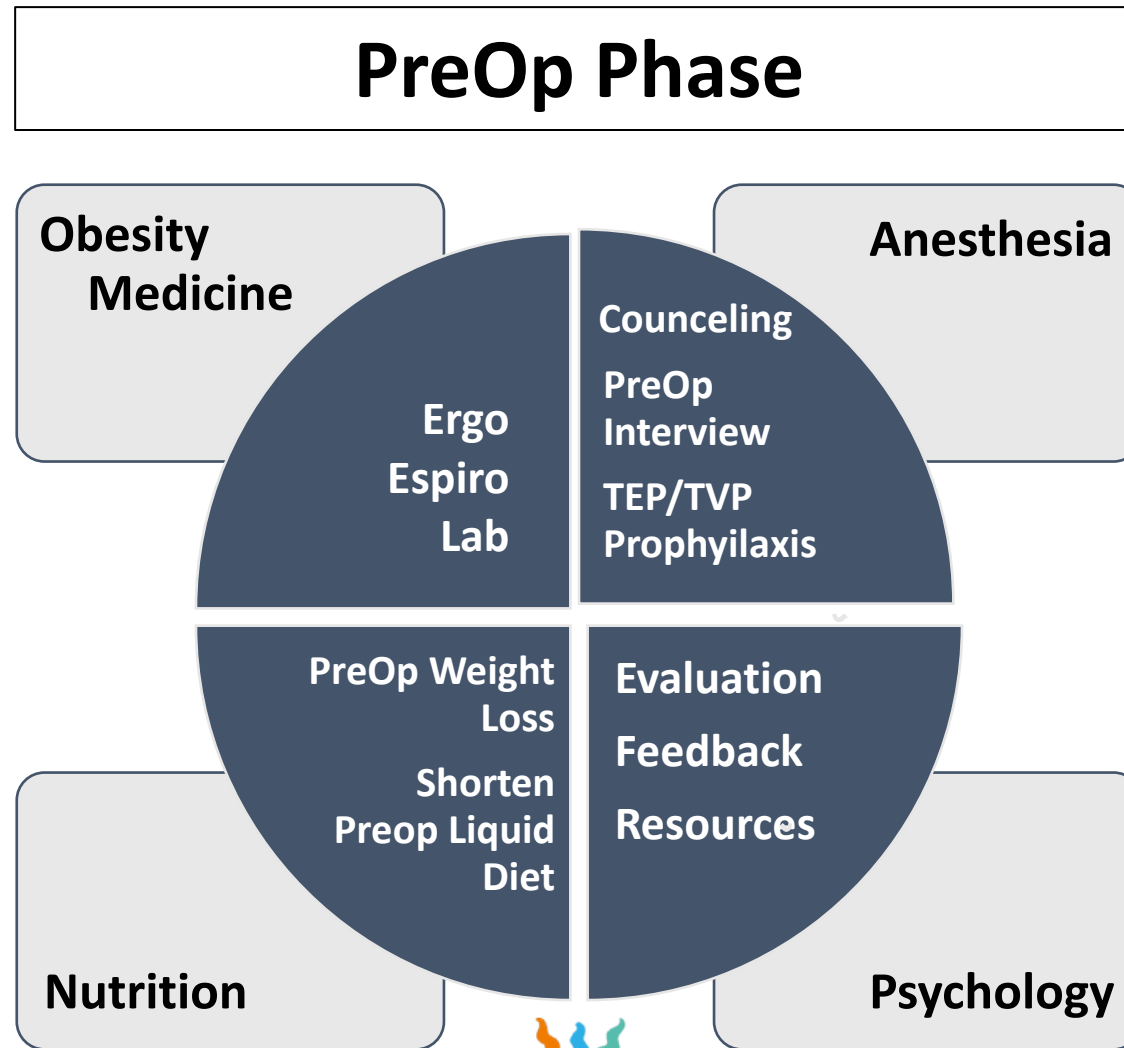


**Each Area has an
ESSENTIAL rol**



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PeriOp Phase

Access to OR Area

- PreOp Diet Suspension 6hr prior
- Clear liquids until 2hs PreOp
- Psychoprophilaxis (on demand)
- Anti-Thrombotic Soxs

Inside OR

- Pneumatic Boots
- Local Anesthesia in Trocar Access (Bupi/Ropivacaine)
- Air Warming Blanket
- TIVA Anesthesia:
 - Propofol
 - Noradrenaline
 - Remifentanil
 - Dexmedetomidine
 - Ketamine
 - Lidocaine
 - SO4 Mg

Immediate PostOp

- PostOp Local Anesthesia (Bupi)
- Metoclopramide + Ondansetron + Dexametasone
- Enoxaparine 12hr postop
- Early Mobilization
- IV Analgesia:
 - Paracetamol
 - Ketorolac
 - Morphine 3mg (if AVS >4)

Opioid-sparing Anesthesia
MULTIMODAL APPROACH

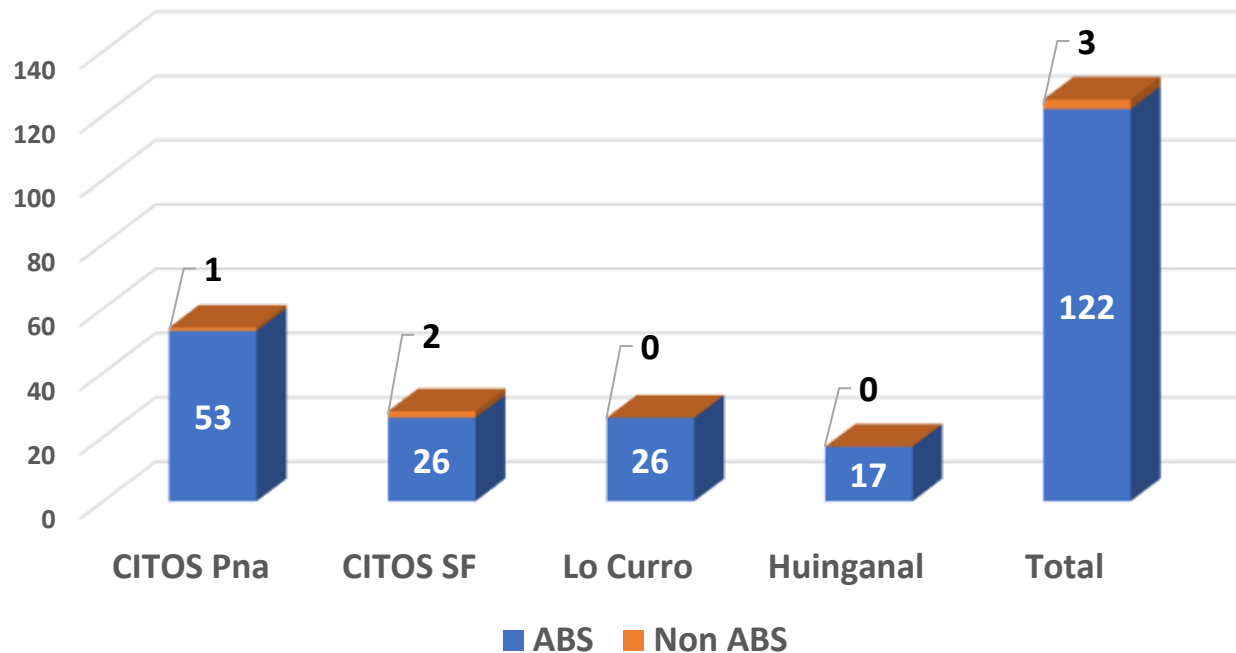
Exclusive Ambulatory Group





G1: Ambulatory Group

Ambulatory Protocol Achievement



Ambulatory Protocol Failure: 4.8%

GI Bleeding (Endoluminal – NOM): 1pt

PostOp Pain: 2pts



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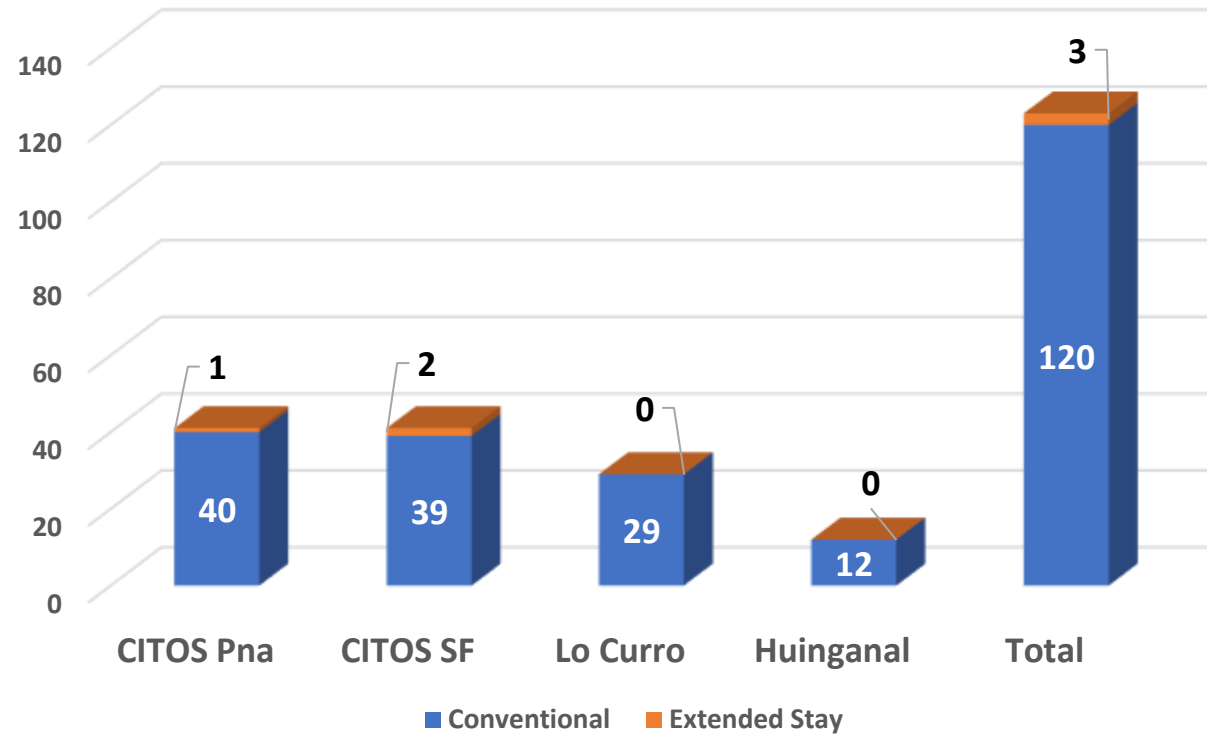
G2: Conventional Group

Extended Stay: 5.6%

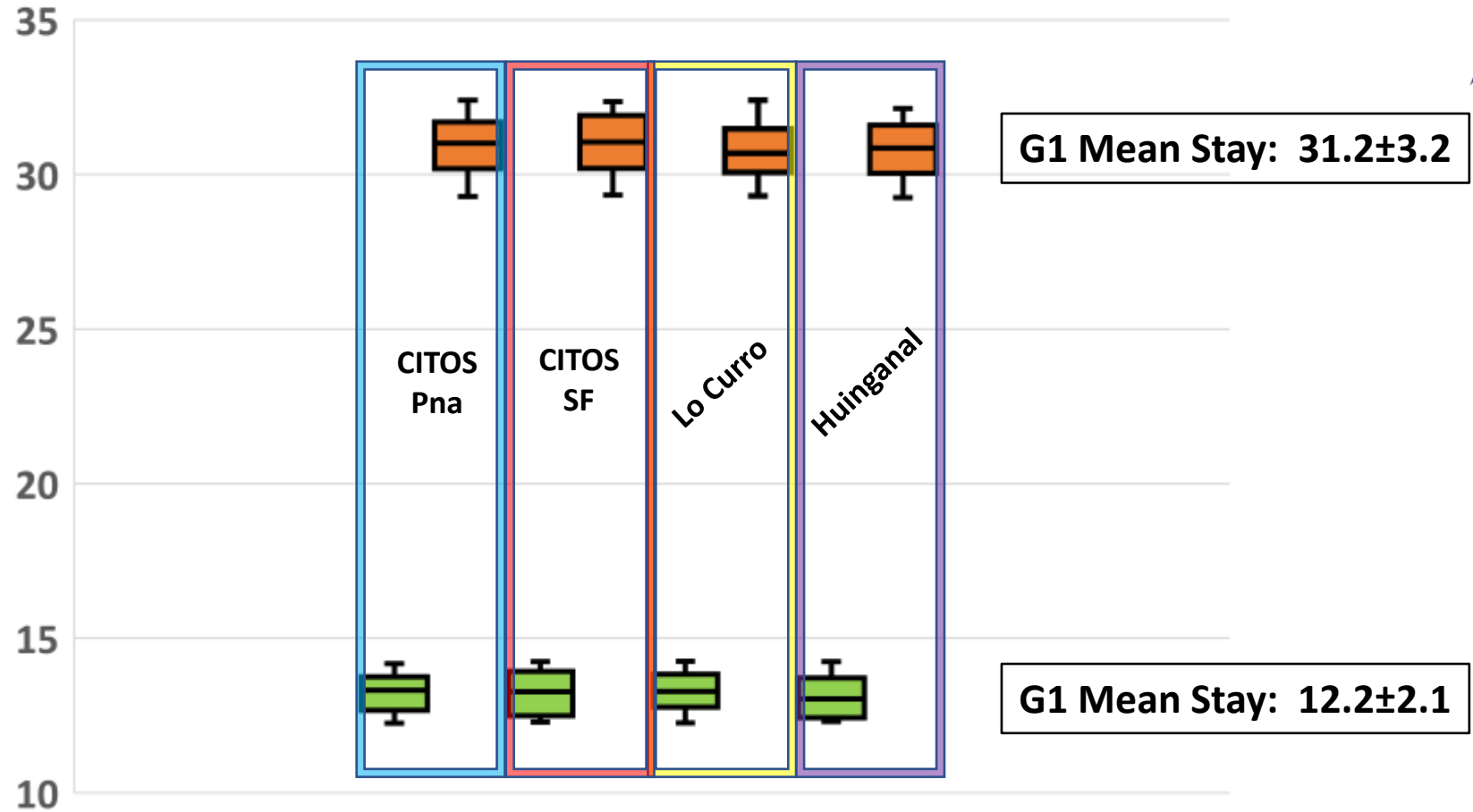
Hemoperitoneum: 2 pts
(ReOp)

PostOp Pain: 5 pts

Extended Hospital Stay in Conventional Group

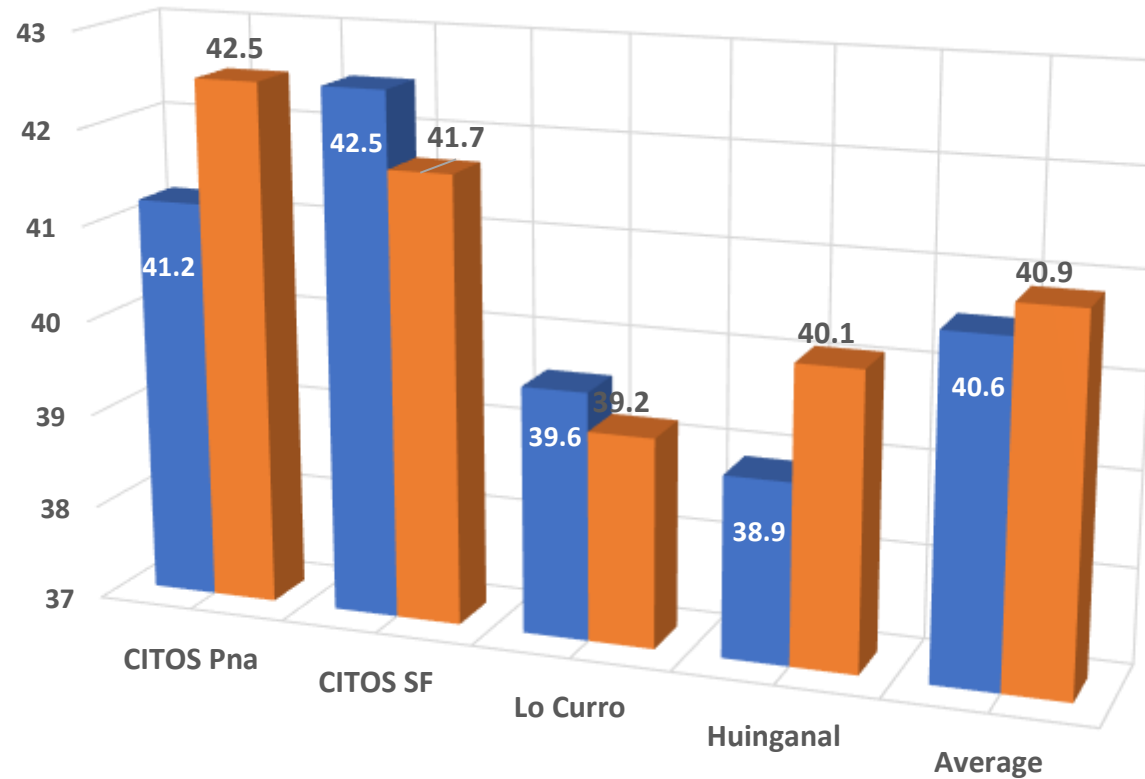


Hospital Stay (Hours)





BMI by Bariatric Center





ReAdmission Rate

Ambulatory: 0.8%

1pt: ReOp Hemoperitoneum

Conventional: 1.6%

1pt: ReOp Hemoperitoneum

1pt: Nausea/vomiting

No other Complication nor Mortality was registered in this serie



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Conclusions

- Ambulatory Bariatric Surgery is Safe and Feasible in selected patients
- It reduces Hospital Stay Costs (More competitive)
- Revealed its Non-Inferiority in 30d Complication Rate vs Conventional Stay (>24hs)
- ***Surgical Procedure Time*** (<90min), ***Anesthesia*** (PeriOp Medication), ***BMI <45***, ***PreOp Weight Loss >10%***, appear to be Independent Variables to achieve ***Ambulatory Bariatric Surgery Objective***



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