

# Developing Day Case Bariatric Surgery Centers

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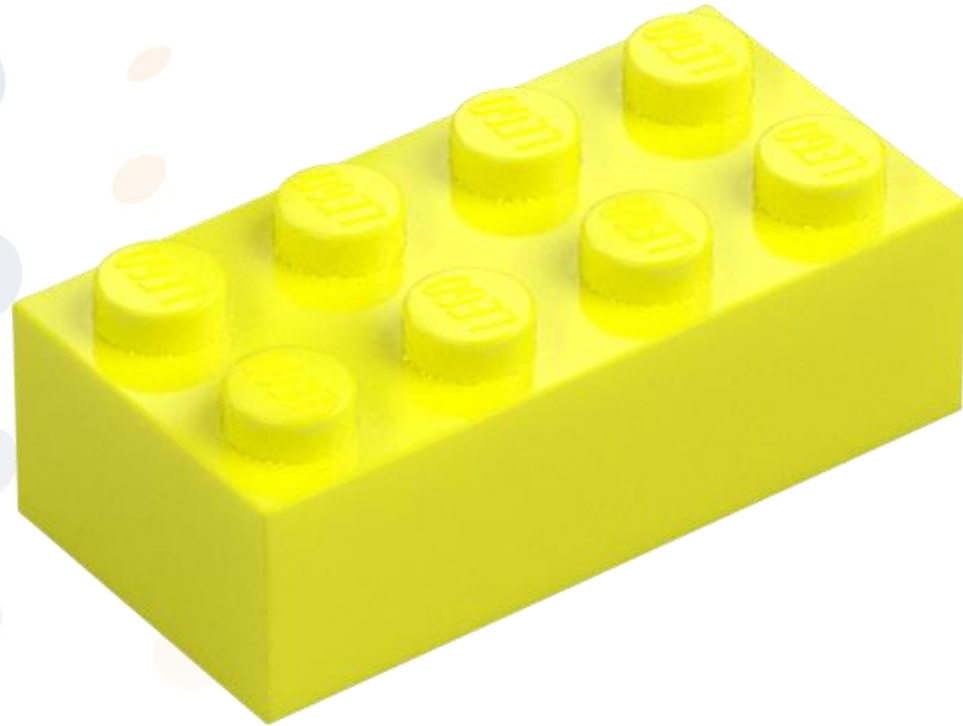
# Disclosures

- Consultant for Medtronic
- Founder of Transform Weight Loss, PLLC
- Partner Transform Health Partners, LLC
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# **Most Metabolic Bariatric Surgery will be day-case!**

**Replicating ambulatory MBS in other facilities, hospitals, and free-standing ASCs will need to be done carefully.**

# LEGOS





# Lessons learned

- Experienced surgeons.
- A-Team
- ERAMBS protocols.
- Set expectations.
- Patient selection.
- Institutional support.







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# Outline

- Threats to Metabolic Bariatric Surgery
- Solution: Ambulatory Metabolic Bariatric Surgery (MBS)
- Background of GI stapling in the Ambulatory Surgery Center (ASC)
- Outcomes
- Enhanced Recovery After Metabolic Bariatric Surgery (ERAMBS) protocol
  - Preoperative
  - Intraoperative
  - Postoperative

# Threats to our surgical practices

- Declining surgical volumes
- Declining reimbursement.
- Bias against bariatric surgery
- Decreasing insurance coverage
- GLP1 Medications
- Economy
- Political Climate



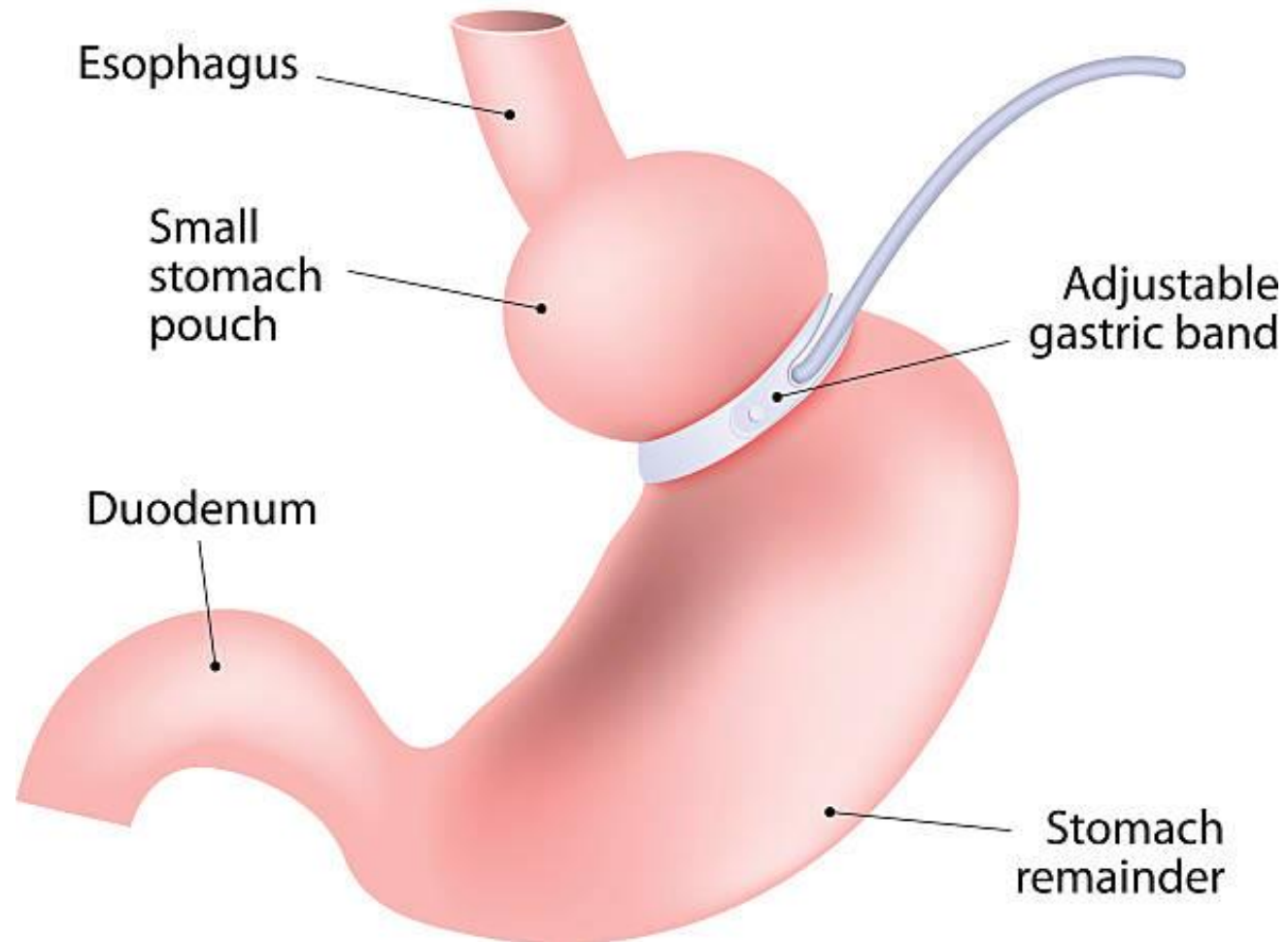
# Concerns of the MBS ASC

- Safety.
- Equipment.
- Training.
- Reimbursement.
- Accreditation.
- Malpractice risk.
- Setting expectations.
- Protocols.

# Benefits of the MBS ASC

- Access to care.
- Value Based Surgery
- Dedicated team.
- Consistent messaging.
- Improved patient satisfaction.
- Lower risk of infections.
- Improved outcomes.
- **Surgeon Autonomy and Equity**

# GASTRIC BAND



# Adjustable gastric banding in an ambulatory surgery center

**Background:** We report our early experience with 343 consecutive patients who underwent laparoscopic adjustable gastric banding (LAGB) as an outpatient procedure in a self-standing ambulatory surgery center.

**Methods:** Between Apr 2003 and Feb 2005, data was collected prospectively on 343 consecutive patients who underwent LAGB as an outpatient.

**Results:** There were 305 females (88.9%) and 38 males (11.1%), with mean age 43.5 years (+/-SD 9.9, range 19-67) and mean BMI 44.5 kg/m<sup>2</sup> (+/-SD 6.1, range 32.7-62.7). Mean operating-room time was 52.9 (+/-16.3) minutes. 10 complications occurred in 9 patients (2.8%): 5 stoma occlusion, 3 port problems requiring port replacement, 1 superficial wound infection, and 1 colon perforation associated with adhesiolysis requiring band removal. 3 patients required admission to the hospital: 1 for nausea, 1 for observation after bloody nasogastric tube drainage, and 1 for dysphagia due to esophageal spasm. All 9 patients with complications recovered fully. 1-year weight loss data was available in 91 patients; mean percent excess weight lost (%EWL) at 1 year was 45.4% (+/-17.6).

Watkins BM, Montgomery KF, Ahroni JH, Erlitz MD, Abrams RE, Scurlock JE. Adjustable gastric banding in an ambulatory surgery center. *Obes Surg.* 2005 Aug;15(7):1045-9. doi: 10.1381/0960892054621099. PMID: 16105405.

# SLEEVE GASTRECTOMY



Before Surgery



After Surgery

# Outpatient laparoscopic sleeve gastrectomy in a free-standing ambulatory surgery center: first 250 cases

Billing PS, Crouthamel MR, Oling S, Landerholm RW. Outpatient laparoscopic sleeve gastrectomy in a free-standing ambulatory surgery center: first 250 cases. Surg Obes Relat Dis. 2014 Jan-Feb;10(1):101-5. doi: 10.1016/j.soard.2013.07.005. Epub 2013 Jul 17. PMID: 24094869.

# Our First 250 Day Case Procedures

| Complications within 30 days post-op |              |
|--------------------------------------|--------------|
| Mortalities                          | 0            |
| Hospital Transfer Rate               | 0.8% (2/250) |
| Hospital Re-admission                | 3.6% (9/250) |
| Post-op Bleeding                     | 0.8% (2/250) |
| Leaks                                | 0.4% (1/250) |

# ERAMBS Selection Criteria

- Age  $\geq$  18.
- Weight  $\leq$  450 lbs. No BMI limitations.
- Expected operative time  $\leq$  2 hours.
- Low cardiac risk.
- Ambulate.
- Sleep apnea clearance and no significant pulmonary concerns.
- No expected ongoing medical monitoring beyond 23 hours.
- No need for specialized equipment or specialist consultation.

# MBSQIP Criteria: Low Acuity vs High Acuity Patients

## Low Acuity Patient and Procedure Selection

Age  $\geq 18$  and  $< 65$

Males with a BMI  $< 55$  and females with a BMI  $< 60$

Patients without organ failure, organ transplant, or significant cardiac or pulmonary impairment

Patients must be ambulatory

Patients must not be a candidate on a transplant list

ASC's are only approved to perform revisional procedures when classified as an emergent case with the exception of gastric band revisions.

# High Acuity Sleeve Gastrectomy Patients In A Free-Standing Ambulatory Surgical Center

Billing P, Billing J, Kaufman J, Stewart K, Harris E, Landerholm R. High acuity sleeve gastrectomy patients in a free-standing ambulatory surgical center. *Surg Obes Relat Dis.* **2017** Jul;13(7):1117-1121. doi: 10.1016/j.soard.2017.03.012. Epub 2017 Mar 27. PMID: 28456510.

# High Acuity Patient Cases Performed in an ASC N=120

- Revisions
- Elderly (age 65 or above)
- BMI > 55 Male
- BMI > 60 Female

| Complications   |               |
|-----------------|---------------|
| Re-admissions   | 3.3% (4/120)  |
| Re-operations   | 0.83% (1/120) |
| Transfers       | 0.83% (1/120) |
| Leaks           | 0             |
| Open Conversion | 0             |
| Mortalities     | 0             |

# Does the future of laparoscopic sleeve gastrectomy lie in the outpatient surgery center? A retrospective study of the safety of 3162 outpatient sleeve gastrectomies

Nine surgery centers

Twenty-one surgeons

Same day sleeve gastrectomy cases

- Surve A, Cottam D, Zaveri H, Cottam A, Belnap L, Richards C, Medlin W, Duncan T, Tuggle K, Zorak A, Umbach T, Apel M, **Billing P**, Billing J, Landerholm R, Stewart K, Kaufman J, Harris E, Williams M, Hart C, Johnson W, Lee C, Lee C, DeBarros J, Orris M, Schniederjan B, Neichoy B, Dhorepatil A, Cottam S, Horsley B.
- **Surg Obes Relat Dis. 2018 Jul 29. pii: S1550-7289(18)30441-6. doi: 10.1016/j.soard.2018.05.027**

# Safety and efficacy of outpatient sleeve gastrectomy: 2,534 cases performed in a single free-standing ASC

Billing P, Billing J, Harris E, Kaufman J, Landerholm R, Stewart K. Safety and efficacy of outpatient sleeve gastrectomy: 2534 cases performed in a single free-standing ambulatory surgical center. *Surg Obes Relat Dis.* 2019 Jun;15(6):832-836. doi: 10.1016/j.soard.2019.03.003. Epub 2019 Mar 20. PMID: 31129000.

# Three independent free-standing ASCs (N=261)

## Procedures (N=261)

- Sleeve
- Roux-en-Y gastric bypass
- SADI-S
- Gastric band removal
- Revisions

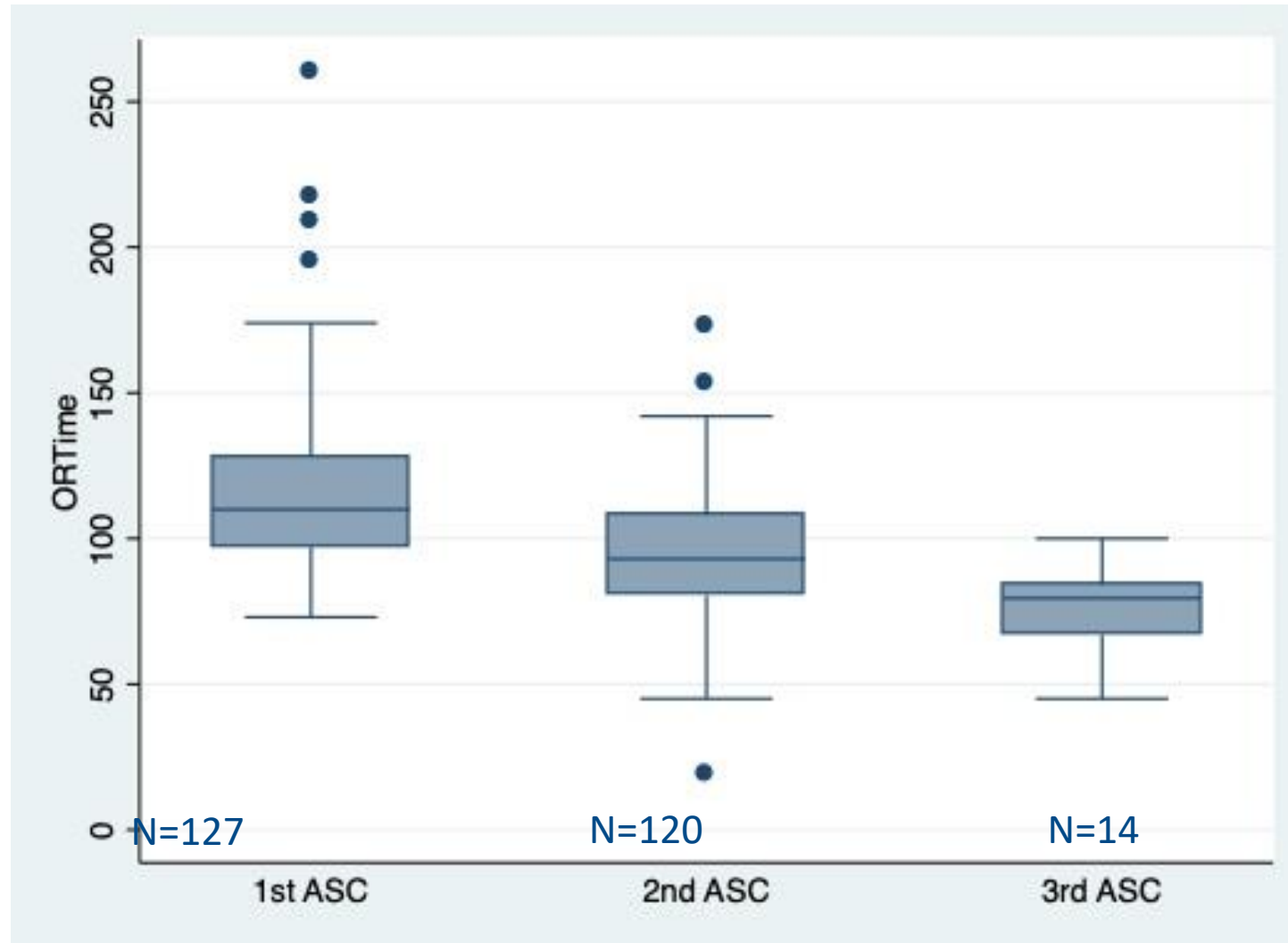
## Demographics

Age: 18-72

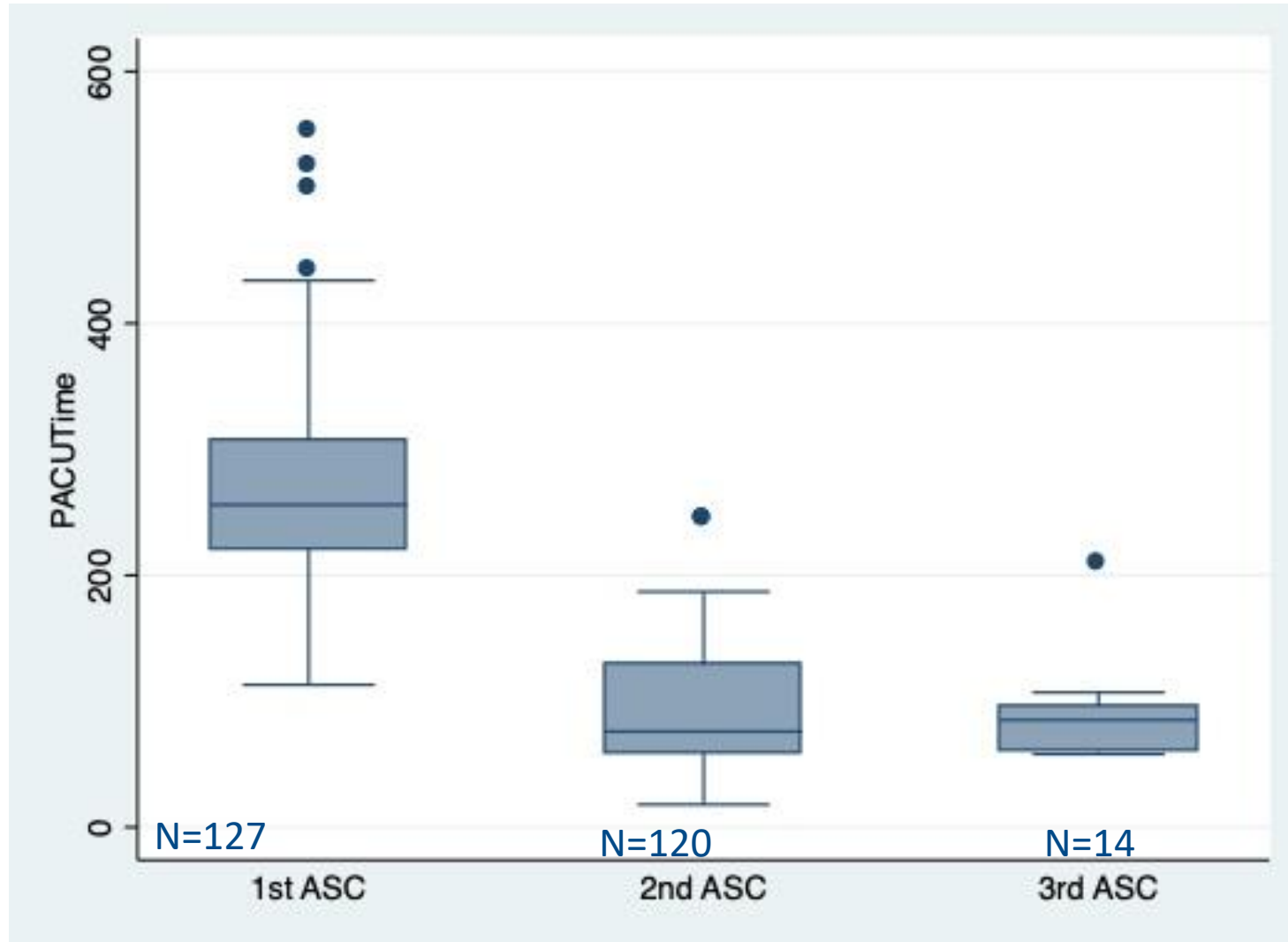
Weight (lbs.): 144- 416

BMI: 29-68

# Operative Time



# PACU Time



# Complications



# Enhanced Recovery After Metabolic Surgery

- Age  $\geq$  18.
- Weight  $\leq$  400 lbs. No BMI limitation.
- Expected operative time  $\leq$  2 hours.
- Low cardiac risk.
- Low pulmonary risk
- Ambulatory.
- Patient screened/treated for sleep apnea.
- No need for specialized equipment or specialist consultation.

# Enhanced Recovery After Metabolic Surgery

- Set patient expectations.
- Minimize narcotics.
- IV fluids 2-4 liters
- Operative times 1-2 hours.
- Avoid concomitant procedures.
- Minimal use of intraabdominal drains.
- No need for studies prior to discharge.
- Provide Patient with Contact Your Contact Information.

# ERAMS Medications

- Scopolamine transdermal patch placed the night before.
- Aprepitant 80 mg po within 3 hours of the procedure.
- Acetaminophen 1000 mg po in preop holding.
- Dexamethasone 4 mg IV intraoperatively.
- Minimal intraoperative use of fentanyl (100-200 ug).
- Ondansetron 4-8 mg IV.
- Ketorolac 30 mg IV.
- Hydromorphone orally for pain control.

# Lessons learned

- Experienced surgeon.
- ERAMS protocols.
- Set expectations.
- Patient selection.
- Institutional support.

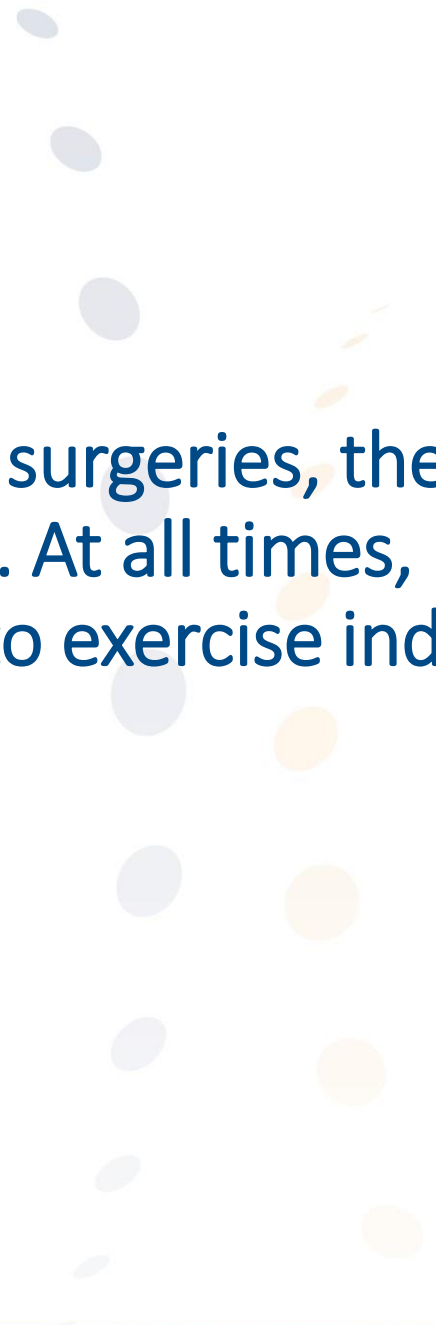
# Thoughts

- Day case bariatric surgery is safe.
- Decreases cost.
- Improves access.
- An alternative to medical tourism.
- Two-thirds of bariatric cases can be done same day.
- Most bariatric cases will be done outpatient
- Patients prefer the ASC experience.



**The future is bright!**

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As with all surgeries, there are risks associated with this procedure. At all times, it is the professional responsibility of the physician to exercise independent clinical judgment in a particular situation.