

Postoperative Oxygenation Improvement in Weight Loss Surgery Patients

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POST-OPERATIVE OXYGENATION IMPROVEMENT

Stephen Meadows and Dana Valasek

A PASSION FOR BETTER MEDICINE.™



Background/Significance

To determine the best interventions to improve patients O2 status during the postoperative period.

PICO QUESTION

In postoperative weight loss surgery patients, how does ambulation within 4 hours of arrival to the unit compare to only using incentive spirometry while OOB affect the time it takes to return to baseline SPO₂.

- P:** Postoperative weight loss surgery patients
(Lap Bands and Lap Sleeves)
- I:** Ambulation within 4 hours of arrival to unit.
- C:** Patients who are OOB and using I/S only.
- O:** Time it takes to return to baseline SPO₂.

TRIGGER?

Trigger for Research

- Using IOWA Model to promote Quality care
 - Problem Focused → Process Improvement Data
 - to prove that early ambulation will enhance the patient's oxygenation level to return to baseline earlier

Evidence

- Search Key Terms: postoperative, oxygenation, bariatric, weight loss surgery, incentive spirometry, ambulation, respiratory, O2 therapy
- Search Engines:
 - EBSCOhost CINAHL
 - EBSCOhost Medline
 - Cochrane

EVIDENCE

- Incentive spirometry is a good measure of lung function post-surgery, however it is not shown to be an adequate replacement for regular physiotherapy
- Early ambulation/ mobility is recommended to reduce postoperative respiratory complications.
- I/S along with early mobilization showed no clear advantage over early mobilization.

EVIDENCE

- Postoperative risks can be minimized by early aggressive ambulation, along with frequent turning and repositioning, use of incentive spirometry, and breathing exercises.
- No interventions at all have shown to dramatically increase the existence of postoperative pulmonary complications.

Current Practice at LVHN

- Out of bed to chair night of surgery order is part of a provider generated order set.

IMPLEMENTATION

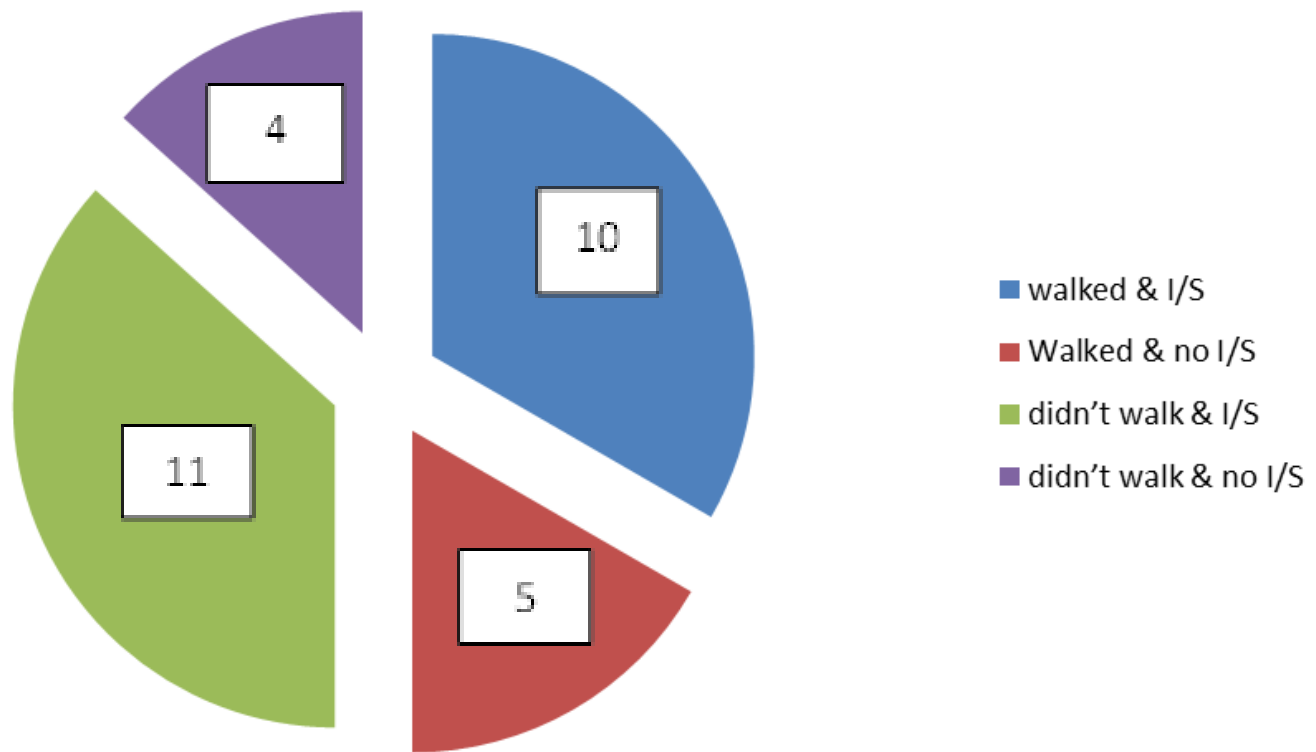
1. Educated staff
2. Recorded baseline spO2 prior to surgery.
3. Gathered data on weight loss surgery patients.
 - Time patient arrived to floor
 - Patients current SpO2 saturation on arrival to the floor
 - First time and length of ambulation
 - Use incentive spirometry
 - Time it took patient to return to baseline spO2
 - Discharge date
4. Grouped patients according to those who ambulated within 4hrs of arrival to unit to those who did not.
5. Determined what patients used incentive spirometry and ambulated vs. those who only used incentive spirometry.
6. Generated graphs based on results

Practice Change

- Ambulate 50 to 100 feet within four hours of arrival to unit.
- Staff knowledge deficit regarding the benefits of early ambulation.

RESULTS

Ambulation & I/S



RESULTS

Implications for LVHN

- Early Ambulation
 - allow patient's to rebound faster
 - return to baseline o2 quicker
 - assist in earlier discharge
 - cost savings

Lessons Learned

- Use your resources
 - Asking help of staff (TP's, RN's) aided in our data collection
 - Medical Librarian
 - EBP Facilitator

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Strategic Dissemination of Results

- PLAN

- 4Ks (Medical\Surgical Unit)

- Nurse Residency Graduation (October 2014)

Make It Happen

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