

## Antidepressants after Bariatric Surgery: A Case Report and Literature Review

### Background

Obesity and depression are highly co-morbid; with studies showing 20-50% of patients undergoing bariatric surgery in the United States have a history of mood disorder. Antidepressants are frequently prescribed to these patients, and unlike medications for hyperlipidemia, diabetes, and hypertension, antidepressants are often continued or increased after bariatric surgery (Roerig, 2015; Lloret-Linares, 2015). With the increasing prevalence of obesity and bariatric procedures, consult-liaison psychiatrists are likely to see an increasing amount of consults for these patients.

### Case:

We present a patient who had Roux-en-y gastric bypass and was continued on duloxetine for depression. The patient had worsening depression after being titrated to 60mg of duloxetine and augmentation with bupropion XL 300mg. Duloxetine was increased from 60 to 90mg due to a concern of decreased bioavailability of medication and bupropion XL was continued. After 4 weeks, the patient presented back to the clinic with improvement in depression.

### Results/Product:

Our literature review will include a review of antidepressant efficacy in patient's status-post bariatric surgery. We will focus our review on selective serotonin reuptake inhibitors (SSRI) and serotonin-norepinephrine reuptake inhibitors (SNRI) use in this population. Our review will also include looking at the various bariatric surgery techniques and their effects on the pharmacokinetics of antidepressants, specifically SSRI and SNRI. Finally, we will present the evidence, or lack thereof, for transitioning to immediate release formulations when available and obtaining drug levels.

### Conclusion and/or Implications

Antidepressant use in patients status post bariatric surgery is common and current guidelines are lacking clear directives on how to approach these patients. With increasing numbers of patients receiving bariatric surgery, consultation-liaison psychiatrists must become more familiar with appropriate treatment of this population.

### References

1. Roerig, J. L., and Steffen, K. (2015) Psychopharmacology and Bariatric Surgery. *Eur. Eat. Disorders Rev.*, 23: 463– 469.
2. Lloret-Linares, C; Bellivier, F; Heron, K; Besson, M. (2015) Treating mood disorders in patients with a history of intestinal surgery: a systematic review. *International Clinical Psychopharmacology*. 30 (3): 119-128.
3. American Society for Metabolic and Bariatric Surgery. (2017). *Estimate of Bariatric Surgery Numbers, 2011-2017*. Retrieved from <https://asmbs.org/resources/estimate-of-bariatric-surgery-numbers>