

54 - Medication formulations^{5,6}

Medication formulations^{5,6}

Drug treatment of psychiatric symptoms in the context of other conditions CHAPTER 10 Bariatric surgery Psychiatric illness is relatively common in patients who have undergone bariatric surgery.¹ Over a third of those seeking bariatric surgery are prescribed psychotropics.² Bariatric surgery can be associated with clinically important changes in drug pharmacokinetics, although it is difficult to predict exactly how psychotropics will be affected because of interindividual differences and rather limited data. There is clearly a need for close treatment monitoring and the ongoing monitoring of symptoms after bariatric surgery.³ Surgical procedures can be classified as: ■ ■ Predominantly restrictive: sleeve gastrectomy and gastric banding. ■ ■ Predominantly malabsorptive: biliopancreatic diversion and jejunioileal bypass. ■ ■ Mixed restrictive/malabsorptive: Roux-en-Y gastric bypass (RYGB) and gastric reduction duodenal switch (GRDS). Absorption following bariatric surgery is drug-specific and shows high variability among individuals. It can be affected by many factors including route of administration, dosage form, patient-specific factors, pharmacokinetic/pharmacodynamic considerations and type of surgery; it can be temporary or permanent.^{4,5} Malabsorptive procedures (including RYGB and GRDS) have a relatively greater potential to alter drug absorption. Most data are derived from studies of patients undergoing RYGB. It is not clear how these data relate to the consequences of other procedures. Pharmacokinetic changes following bariatric surgery All procedures may alter the following: ■ ■ Tablet disintegration and dissolution times via changes in gastric pH and mixing. ■ ■ Area for drug absorption (reduced gastric and/or functional intestinal surface area). ■ ■ Rate of absorption via changes in the gastric emptying rate. ■ ■ Drug distribution via loss of adipose tissue (especially lipid-soluble drugs) and altered protein binding. ■ ■ Drug metabolism owing to improvements in hepatic function after weight loss. ■ ■ Drug excretion via changes in renal function after weight loss. Malabsorptive surgical procedures may further lead to: ■ ■ Changes in the availability of certain enzymes and transporters. ■ ■ Altered lipophilic drug solubilisation (bypassing proximal small intestine bile salts). ■ ■ Reduced intestinal wall drug metabolism via decreased intestinal length. Medication formulations^{5,6} Any formulation that prolongs drug disintegration or dissolution can potentially impair drug absorption following bariatric surgery. Switching to immediate-release formulations before surgery is generally recommended. Orodispersible and liquid preparations do not go through a disintegration phase, and may be preferred if reduced absorption from solid tablets is suspected.⁷ Very large tablets (e.g. over 10mm in diameter) should be avoided as passage may be impeded by restrictive procedures.

Revision #1

Created 2026-01-04 20:17:55 UTC by Omar Ayman

Updated 2026-01-04 20:17:55 UTC by Omar Ayman