Notes from a Bariatric Surgeon for Primary Care Providers

NUTRITION: Gastric bypass patients have only a small remnant of the stomach and almost no acid-producing parietal cells, so absorption of nutrients that require acid (such as calcium in the carbonate form) or intrinsic factor (B-12) is impaired. Additionally, the food bypasses the duodenum, so nutrients absorbed best in the duodenum (calcium and iron) generally require supplementation. I suggest the following:

Vitamins for life:

1. Multivitamin with minerals- 1 adult chewable (or 2 children's) or liquid "complete" once daily. These must contain iron and trace minerals- no gumballs or gummy vitamins. A bariatric specialty vitamin is likely to contain sufficient B-12, D_3, and iron (menstruating women will generally need extra iron), but the calcium will need to be given separately.
2. B-12- 5000mcg chewable, SL or oral liquid weekly. 1000mcg orally three times a week or 500mcg daily is also acceptable. Methylcobalamine is better absorbed than cyanocobalamine. IM 1000mcg monthly is rarely needed.
3. Calcium CITRATE (not carbonate or gluconate)- 500mg orally 3 times a day. Liquid or chewable forms are preferred. Calcium should not be taken within 2 hours of an iron-containing supplement.
4. Vitamin D- 5,000 IU D_3 (cholecalciferol) orally two or three times a week (over the counter) or 50,000 IU D_2 (ergocalciferol) once or twice a month (prescription), or 2000-3000 IU D_3 daily.
5. Additional oral iron/vit C may be needed for menstruating women. Like the other vitamins and minerals it should be liquid or chewable. Start 18-27 mg elemental iron daily with 250mg vitamin C to improve absorption). Use 60-120 mg elemental iron in divided doses to correct significant iron deficiency.

Protein- Ingest 60+ grams (men 80mg) of protein daily. Meals should start on an empty stomach. Patients should stop drinking 30 minutes prior to the meal and consume the protein first. Patients can resume drinking 30-45 minutes after completion of the meal.

Yearly lab checks:

CMP, Hct, ferritin, B12/folate, thiamine, calcidiol (25-hydroxy-vitamin D), intact PTH, Consider HgbA1C if diabetic or pre-diabetic preoperatively, TSH if indicated, lipids prn.

Delay planned conception until 12 months post operation (ACOG guideline)

MEDICATIONS:

Due to the presence of an anastomosis and lack of the pyloric valve exiting stomach "pouch," the absorption of oral medications is somewhat unpredictable. I recommend the following:

1. All medications should be liquid or crushed prior to ingestion.
2. Sustained release or delayed action medications should not be used.
3. Consider patch or injectable forms of medications if appropriate.

4. For contraception, consider subcutaneous, intravaginal, patch or IUD.
5. Avoid medications which may cause ulcers at the anastomosis such as NSAIDS and high dose ASA. (Smoking also causes this.)
6. Acetaminophen, narcotics (Lortab elixir my preference) and tramadol OK for pain

Complications:

Gallstones: These may form during rapid weight loss. We use Actigall 300mg BID for first six months post-operatively to reduce this risk for all bypass and sleeve patients.

Internal Hernia: A loop of bowel could become trapped internally without any palpable abdominal wall hernia, so any episode of severe abdominal pain lasting 4 or more hours should be evaluated in the ER. GBP patients should NOT have blind placement of Nasogastric tubes due to iatrogenic perforation risk.

Dumping Syndrome: Rapid passage of highly concentrated food into the jejunum (due to loss of pyloric sphincter and bypass of duodenum) can cause a transient sick feeling of nausea, diaphoresis, light-headedness, tachycardia/palpitations, and diarrhea after eating sugary food or drink. This occurs in only 1/3 of patients, and most patients learn early to avoid the triggering foods or amounts. They generally last less than 30 minutes.

Failure of adequate weight loss: I quote a 15% failure rate and tell the patients up front what the common culprits are. Causes for failure of sustained adequate weight loss are 1) calorie-dense liquids 2) continuous snacking, and 3) no exercise. Additionally, post gastric bypass patients should eat three (small) meals a day, not six as old recommendations were for past gastrectomy patients. An uncommon cause of weight re-gains or failure to lose weight would be a gastro-gastric fistula, which can be detected using UGI and which is surgically correctable. Referral to a Medical Bariatrician (Obesity Medicine Specialist) or Registered Dietitian for nutrition consultation is the best option once a surgical cause has been ruled out.

Dehydration and Hypoglycemia post op: Post Gastric Bypass patients need to sip on low carbohydrate fluids throughout the day (at least 60 oz/day) to prevent dehydration. Hypoglycemia may be from excessively rapid weight loss and insufficient oral intake, failure to withhold diabetic medications, or a late rare complication, hyperinsulinemic hypoglycemia, which is usually amenable to dietary intervention. Referral to an Obesity Medicine Specialist or Registered Dietitian is also recommended in the case of late hypoglycemia.

Cosmetic Surgery: Removal of excess skin should be delayed until at least 18 months after the operation. The weight should be stable, and all nutritional labs should be optimized. Smoking is a contraindication both for the Gastric Bypass and for any cosmetic surgery after weight loss. Patients with less dramatic weight loss might benefit from consultation regarding non-invasive skin tightening procedures.