

Bariatric Surgery Reference Guide for the Primary Care Practitioner

Follow Up Appointments and Referrals

- Any patient who had bariatric surgery at UCDCM, please refer back to the UCDCM program for all follow up needs.
- For any patient with a history of bariatric surgery with a current surgical concern (regardless of location of initial bariatric operation), please refer to UCDCM for evaluation.
- For long term follow up care for those patients who did NOT have their bariatric procedure at UCDCM, please refer to the following recommendations.

New Patient Referral Considerations

- Most insurance companies require 3-6 months of documented attempts towards weight loss by the PCP or registered dietitian prior to approving coverage for a bariatric procedure.
- These monthly visits must be done consecutively and if a month is missed, the time frame starts all over.
- The primary diagnosis at these appointments must be obesity.
- The patients may and should be referred to the bariatric team at this time so evaluation and testing can begin. We build the weight management appointments into our program however if a patient has started prior to evaluation, that can be helpful.
- Helpful work-up that can be done prior to referral (though not mandatory):
 - H&P
 - Chest X-ray
 - EKG
 - Up to date cancer screening: pap smear, mammogram (females 40+, colonoscopy (50+)

- Referral for sleep study if STOP-BANG ≥ 3
- Smoking cessation

Postoperative Follow Up

- ≤ 3 months s/p surgery: global postoperative period, please refer back to patient's primary bariatric surgeon
- 6 months and annually: evaluate GI symptoms, lab evaluation and supplements as outlined below
 - CBC, CMP, iron panel (to include ferritin, transferrin, TIBC), RBC folate, lipid panel, Vitamin B1, Vitamin B6, Vitamin B12, Vitamin C, Vitamin D-25 hydroxy, Hgb A1C, CRP, Zinc, Insulin, Copper (RYGBP), Vitamin A (RYGBP)

Lifelong Micronutrient Supplementation

- Roux-en-Y Gastric Bypass/Vertical Sleeve Gastrectomy
 - Multivitamin 1 pill PO BID
 - Take separately from calcium by at least 2 hours
 - Sleeve gastrectomy patients can likely decrease to 1 pill per day at 6 months postoperatively if labs are appropriate
 - Multivitamins must contain at least 18 mg of iron per pill therefore no senior/silver/men's formulas are recommended.
 - 1200-1500 mg calcium citrate or carbonate daily, in 2-3 divided doses, taken separately from iron sources (multivitamin or iron pills)
 - Vitamin B12 500 mcg SL/PO daily or 1000 mcg IM injection once monthly
 - higher doses can be taken less frequently: 1000 mcg every other day, 2500 mcg 2x/week, 5000 mcg once weekly
 - Vitamin D3 2,000-4,000 international units PO daily (dose adjusted to maintain Vitamin D-25 hydroxy level above 30 ng/mL)

- Things to note

- Gummy vitamins are not appropriate.
- Menstruating women may need 45-60 mg of elemental iron daily from diet and vitamins.

Treatment of Micronutrient Deficiencies

- Confirm that adequate routine supplementation is in place. If not, replete as needed and start patient on routine supplementation doses.
- Vitamin B1 (Thiamin)
 - PO: 100 mg 2-3 times daily until symptoms resolve
 - Simultaneous administration of magnesium, potassium and phosphorus should be given to patients at risk for refeeding syndrome
- Vitamin B12
 - <400 pg/mL suboptimal, <200 pg/mL deficiency
 - IM: 1000 mcg
 - PO: 1000 mcg daily X 2 weeks
- Vitamin D
 - <20 ng/mL, deficiency: treat with Vitamin D2 50,000 international units weekly X 8 weeks, then maintenance dose of 4,000 international units daily
 - <30 ng/mL, insufficiency: treat with Vitamin D3 2,000-4,000 international units daily
- Folate
 - PO: 1000 mcg daily X 2 weeks
- Iron
 - Note CRP should always be ordered when assessing ferritin level as it is a positive acute phase reactant
 - Ferritin < 20 ng/mL and CBC indicative of iron deficiency anemia: add 150-200

mg of elemental iron daily in split doses X 2 months

- If iron deficiency does not respond to oral therapy and/or ferritin <10 and Hgb very low, IV infusion should be administered.
 - Venofer 200 mg X 5 doses weekly
 - Injectafer 750 mg X 2 doses 1 week apart
 - Measure CBC, ferritin and CRP before each infusion cycle and ~2 months post treatment.
- Vitamin A
 - Without corneal changes: 10,000-25,000 international units orally/day for 1-2 weeks
 - With corneal changes: 50,000-100,000 international units IM for 3 days followed by 50,000 international units daily IM for 2 weeks
- Copper
 - Mild to moderate deficiency (including low hematologic indices): treat with 3-8 mg/day oral copper gluconate or sulfate until indices return to normal
 - Severe deficiency: 2-4 mg/day IV copper can be initiated for 6 days or until serum levels return to normal and neurologic symptoms resolve
- Vitamin K
 - For acute malabsorption, a parenteral dose of 10 mg Vitamin K is recommended
 - For chronic malabsorption, recommended dose is either 1-2 mg/day orally or 1-2 mg/week parenterally