R56. (2013*). Management of oxalosis and calcium oxalate stones includes avoidance of dehydration **(Grade D)**, a low-oxalate meal plan **(Grade D)**, oral calcium **(Grade B; BEL 1; downgraded due to small evidence base)**, and potassium citrate therapy **(Grade B; BEL 1; downgraded due to small evidence base)**. Probiotics containing *Oxalobacter formigenes* may be used, as they have been shown to improve renal oxalate excretion and improve supersaturation levels **(Grade C; BEL 3)**.

R57. (2019*). Aggressive case finding (i.e., detecting a disorder in patients at risk) for vitamin A undernutrition may be performed in the first postoperative year after Roux-en-Y gastric bypass (RYGB) or biliopancreatic diversion without/with duodenal switch (BPD/DS) or with evidence of malnutrition due to high prevalence for this deficiency state in these settings **(Grade C; BEL 3)**. Aggressive case finding for vitamin E and K deficiencies should be reserved for those postoperative patients demonstrating symptoms (hemolytic anemia and neuromuscular, particularly ophthalmologic, for vitamin E; excessive bleeding or bruising for vitamin K) **(Grade D)**. When indicated, the dosing strategies for vitamin A are 5,000 IU/day for laparoscopic adjustable gastric banding (LAGB), 5,000 to 10,000 IU/day for RYGB and SG, and 10,000 IU/day for BPD/DS; for vitamin E, 15 mg/day for all procedures; and for vitamin K, 90 to 120 μg/d for LAGB, RYGB, and SG and up to 300 μg/d for BPD/DS **(Grade D)**.

R58. (2008*). In the presence of any established fat-soluble vitamin deficiency (vitamins A, D, E, and/or K) with, for example, hepatopathy, neuromuscular impairment, coagulopathy, or osteoporosis, or suspected essential fatty acid deficiency (symptoms include hair loss, poor wound healing, and dry scaly skin), clinical and biochemical assessments of the other fat-soluble vitamins may be considered and then supplemented if abnormally low **(Grade D)**. In patients with suspected essential fatty acid deficiency in the setting of malabsorptive procedures, therapeutic trials with topical borage, soybean, or safflower oil may be considered due to the low risk profile, but these trials are unproven at present **(Grade D)**.

R59. (2019*). Anemia without evidence of blood loss warrants evaluation of nutritional deficiencies, as well as age-appropriate causes during the late postprocedure period **(Grade D)**. Iron status should be monitored in all patients within the first 3 months after bariatric procedures, then every 3 to 6 months until 12 months, and then annually thereafter for all patients **(Grade B; BEL 2)**. Treatment regimens include oral ferrous sulfate, fumarate, or gluconate to provide up to 150 to 200 mg of elemental iron daily **(Grade A; BEL 1)**. Vitamin C supplementation may be added simultaneously to increase iron absorption **(Grade C; BEL 3)**. Intravenous iron infusion (preferably with ferric gluconate or sucrose) may be needed for patients with severe intolerance to oral iron or refractory deficiency due to severe iron malabsorption **(Grade D)**.

R60. (2019*). Baseline and annual post–bariatric procedure evaluation for vitamin B12 deficiency should be performed in all patients **(Grade B; BEL 2)**. More frequent aggressive case finding (e.g., every 3 months) should be performed in the first postoperative year, and then at least annually or as clinically indicated for patients who chronically use medications that exacerbate the risk of B12 deficiency: nitrous oxide, neomycin, metformin, colchicine, proton-pump inhibitors, and seizure medications **(Grade B, BEL 2)**. Since serum B12 may not be adequate to identify B12 deficiency, consider measuring serum methylmalonic acid, with or without homocysteine, to identify a metabolic deficiency of B12 in symptomatic and asymptomatic patients and in patients with a history of B12 deficiency or pre-existing neuropathy **(Grade B, BEL 2)**. Oral supplementation (via disintegrating tablet, sublingual, or liquid) with crystalline vitamin B12 at a dosage of 350 to 1,000 μg daily or more is recommended to maintain normal vitamin B12 levels **(Grade A; BEL 1)**. Intranasally administered vitamin B12 may also be considered **(Grade D)**. Parenteral (intramuscular or subcutaneous) B12 supplementation, 1,000 μg/month to 1,000 to 3,000 μg every 6 to 12 months, is indicated if B12 sufficiency cannot be maintained using oral or intranasal routes **(Grade C; BEL 3)**.

R61. (2013). Folic acid supplementation (400 to 800 μg/day) should be part of a routine multivitamin-multimineral preparation **(Grade B; BEL 2)** and must be supplemented further (1,000 μg/day) when a deficiency state is suspected (e.g., with skin, nail, or mucosal changes) or found, as well as in all women of childbearing age (800 to 1,000 μg/day) to reduce the risk of fetal neural tube defects **(Grade A; BEL 1)**. B12 status should be assessed in patients on higher-dose folic acid supplementation (>1,000 μg/day) to detect a masked B12 deficiency state **(Grade D)**.

R62. (2013). Nutritional anemias resulting from malabsorptive bariatric procedures can involve deficiencies in vitamin B12, folate, protein, copper, selenium, and zinc and may be evaluated when routine aggressive case finding for iron-deficiency anemia is negative **(Grade C; BEL 3)**.

R63. (2013). There is insufficient evidence to support routine selenium screening or supplementation after a bariatric procedure **(Grade D)**. However, selenium levels may be checked as part of aggressive case finding in patients with a malabsorptive bariatric surgical procedure who have unexplained anemia or fatigue, persistent diarrhea, cardiomyopathy, or metabolic bone disease **(Grade C; BEL 3)**.