Suplementação vitamínica (pós-bariátrica)

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Serviço de Endocrinologia e Metabologia | Hospital Universitário | ENDOSUL 2018

UNIVERSIDADE FEDERAL
DE SANTA CATARINA

Introdução

- OBESIDADE → DESNUTRIÇÃO CRÔNICA
- ADERÊNCIA no pré-operatório (8 meses a 2 anos de pré - operatório) importante !
- HIPOVITAMINOSES no pré-operatório
- Discutir preço do tratamento após a cirurgia
- Área absortiva , pH intestinal , presença de H . Pylori,
- Tratamento de gastrite , etc
- Uso de medicamentos (anti-ácidos)
- Perdas sanguíneas (ciclo menstrual anormal)

Acompanhamento pós operatório

Exames Laboratoriais:

- Hemog, glicemia, perfil lipídico, AU , creatinina, TGO, TGP, GGT, albumina, ácido fólico, B12, Fe, ferritina, cálcio, PTH*, 25OH vit D*.

Rotina sugerida: 1º, 2º, 3º, 6º, 9º, 12º, 15º, 18º e após semestralmente até 5 anos, e anualmente por toda a vida

Endoscopia, Eco abdominal e Densitometria óssea

Review article

American Society for Metabolic and Bariatric Surgery Integrated Health Nutritional Guidelines for the Surgical Weight Loss Patient 2016 Update: Micronutrients

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Tiamina

Micronutrient	Post-WLS Nutrient Screening Recommendation	Ra
Thiamin	● Routine post-WLS screening* is recommended for high-risk WLS groups (Grade B, BEL 2) ☑: o Patients with risk factors for TD (Grade B, BEL 2) ☑ o Females (Grade B, BEL 2) ☑ o Blacks (Grade B, BEL 2) ☑ o Patients not attending a nutritional clinic after surgery (Grade B, BEL 2) ☑ o Patients with GI symptoms (intractable nausea and vomiting, jejunal dilation, mega-colon, or constipation) (Grade B, BEL 2)☑ o Patients with concomitant medical conditions such as cardiac failure (especially those receiving furosemide) o Patients with SBBO (Grade C, BEL 3) ☑ ● If signs and symptoms or risk factors are present in post-WLS patients, thiamin status should be assessed at least during the first 6 mo, then every 3–6 mo until symptoms resolve. (Grade B, BEL 2) ☑	●

Vitamina B12

Vitamin B12	• Routine post-WLS screening of vitamin B12 status is recommended for patients who have undergone RYGB, SG, or BPD/DS. (Grade B, BEL 2) ☑ • More frequent screening (e.g., every 3 mo) is recommended in the first post-WLS year, and then at least annually or as clinically indicated for patients who chronically use medications that exacerbate risk of B12 deficiency: nitrous oxide, neomycin, metformin, colchicine, proton pump inhibitors, and seizure medications. (Grade B, BEL 2) ☑ • Serum B12 may not be adequate to identify B12 deficiency. It is recommended to include serum MMA with or without homocysteine to identify metabolic deficiency of B12 in symptomatic and asymptomatic patients and in patients with history of B12 deficiency or preexisting neuropathy. (Grade B, BEL 2) ☑

Folato – pós operatório

- Routine post-WLS screening of folate status is recommended for all patients. (Grade B, BEL 2) ☑
- Particular attention should be given to female patients of childbearing age. (Grade B, BEL 2) ☑

Ferro - Pós operatório

Iron

Post-WLS patients at low risk (males and patients without history of anemia) for post-WLS iron deficiency should receive at least 18 mg of iron from their multivitamin. (Grade C, BEL 3) ☑

Menstruating females and patients who have undergone RYGB, SG, or BPD/DS should take at least 45–60 mg of elemental iron daily (cumulatively, including iron from all vitamin and mineral supplements). (Grade C, BEL 3) ☑

Oral supplementation should be taken in divided doses separately from calcium supplements, acid-reducing medications, and foods high in phytates or polyphenols. (Grade D, BEL 3) ☑ Recommendation is downgraded to D, since majority of evidence is from non-WLS patients.

Vitamina D e Cálcio - Pós operatório

Vitamin D and Calcium

All post-WLS patients should take calcium supplementation. (Grade C, BEL 3) ☑

The appropriate dose of daily calcium from all sources varies by surgical procedure:

BPD/DS: 1800–2400 mg/d

LAGB, SG, RYGB: 1200–1500 mg/d

The recommended preventative dose of vitamin D in post-WLS patients should be based on serum vitamin D levels: Recommended vitamin D3 dose is 3000 IU daily, until blood levels of 25(OH)D are greater than sufficient (30 ng/mL) (Grade D, BEL 4) ☑

A 70–90% lower vitamin D3 bolus dose is needed (compared to vitamin D2) to achieve the same effects as those produced in healthy non-bariatric surgical patients. (Grade A, BEL 1) ☑

To enhance calcium absorption in post-WLS patients (Grade C, BEL 3): ☑

Calcium should be given in divided doses.

Calcium carbonate should be taken with meals.

Calcium citrate may be taken with or without meals.

Pós operatório

Vitamins A, E, and K

Post-WLS patients should take vitamins A, E, and K, with dosage based on type of procedure:

LAGB: Vitamin A 5000 IU/d and vitamin K 90–120 ug/d (Grade C, BEL 3) ☑

RYGB and SG: Vitamin A 5000–10,000 IU/d and vitamin K 90–120 ug/d (Grade D, BEL 4) ☑

LAGB, SG, RYGB, BPD/DS: Vitamin E 15 mg/d (Grade D, BEL 4) ☑

DS: Vitamin A (10,000 IU/d) and vitamin K (300 µg/d) (Grade B, BEL 2) ☑

Higher maintenance doses of fat-soluble vitamins may be required for post-WLS patients with a previous history of deficiency in vitamin A, E, or K. (Grade D, BEL 4)

Water-miscible forms of fat soluble vitamins are also available to improve absorption (Grade D, BEL 4)

Special attention should be paid to post-WLS supplementation of vitamin A and K in pregnant women. (Grade D, BEL 3) ☑

Pós operatório

Zinc

All post-WLS patients should take > RDA zinc, with dosage based on type of procedure (Grade C, BEL 3): ☑

BPD/DS: Multivitamin with minerals containing 200% of the RDA (16–22 mg/d)

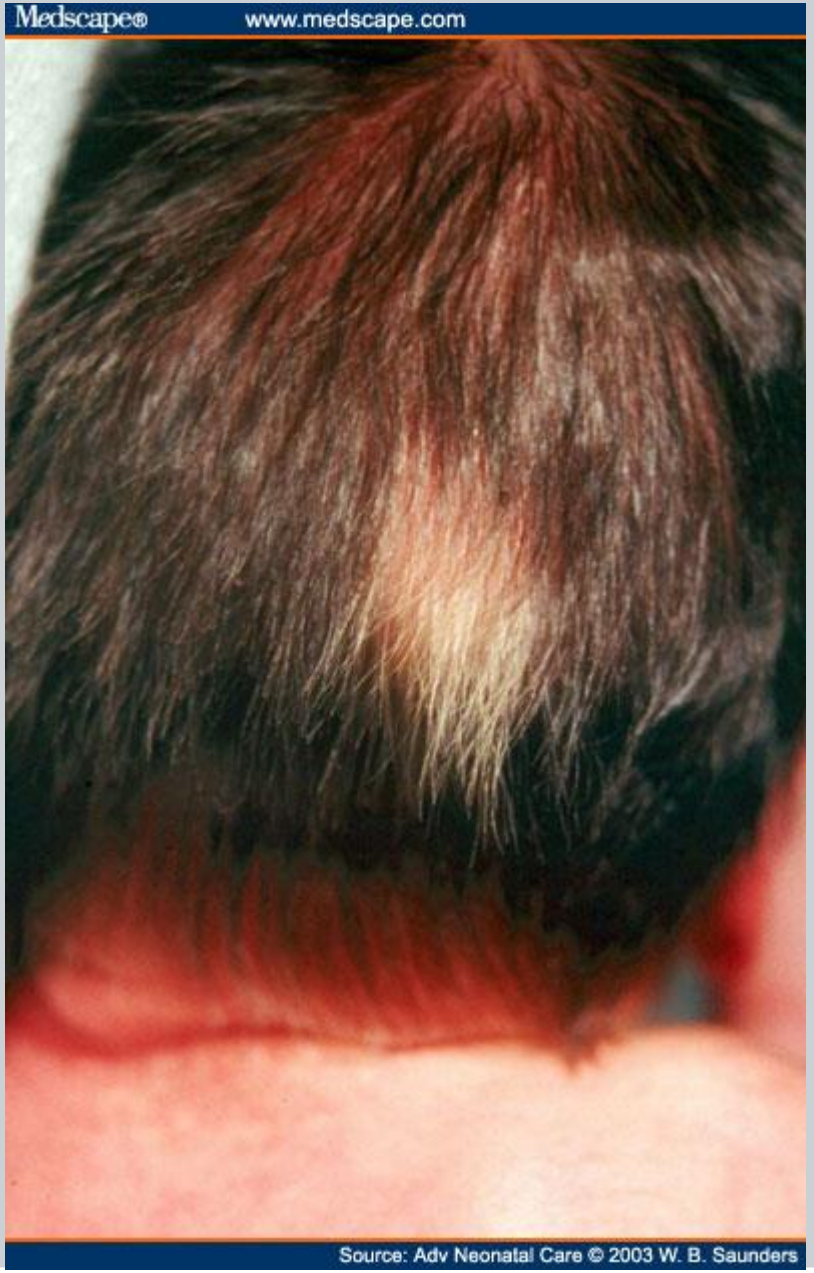
RYGB: Multivitamin with minerals containing 100–200% of the RDA (8–22 mg/d)

SG/LAGB: Multivitamin with minerals containing 100% of the RDA (8–11 mg/d)

To minimize the risk of copper deficiency in post-WLS patients, it is recommended that the supplementation protocol contain a ratio of 8–15 mg of supplemental zinc per 1 mg of copper. (Grade C, BEL 3) ☑

Formulation and composition of zinc supplements should be considered in post-WLS patients to calculate accurate levels of elemental zinc provided by the supplement. (Grade D, BEL 4) ☑

Deficiência de Cobre



Suplementação

Table 4. Minimal regular nutritional supplement for patients after Roux-en-Y gastric bypass

Component	Via
Multivitamin plus minerals tablets	Oral
Calcium citrate > 1,200 mg/day, divided doses	Oral
Vitamin D3 > 3000 IU/day, or > 20000 IU/week*	Oral
Vitamin B12 5000 ug tablets, or 1000, 5000 or 15000 ug vial*	Oral, or intramuscular
Iron (sulfate, fumarate, hydroxide, gluconate) > 45 mg/day**	Oral

* As needed to maintain normal range levels; ** As needed to maintain normal hematocrit and ferritin range levels.

Arq Bras Endocrinol Metab. 2014;58/9

Suplementação

Mínimo : 100% DRI em 2/3 dos micronutrientes:

- Cirurgias restritivas: 100% DRI = 1 comp/dia
- ***Cirurgias disabsortivas e mistas: 200% DRI = 2 comp/dia***

- Cada comprimido deveria conter:

Ferro - 18mg
Ácido fólico - 400mcg
Zinco - 15mg
Selênio
B1 - 1,2mg
B12 - 2,4mcg
Biotina (B7) – 30mcg
Vitamina K – 120mcg

Suplementação diária

	Centrum Brasil	Centrum USA	ALL 26 geriatric	Vitergan master	Supradyn	Materna (35 – 46 reais)
Ferro (18)	8,1	18,0	9,0	10,0	50,0	60,0
Ác.fólico (0,4)	0,24	0,4	0,2	0,4	X	1,0
Zinco (15)	7,0	11,0	15,0	1,5	2,3	25,0
B1 (1,2)	1,2	1,5	1,5	2,0	20,0	3,0
B12 (2,4)	2,4	6,0	25,0	1,0	5,0	12,0
Biotina (30)	30,0	30,0	30,0	X	25,0	30,0
Vit K (120)	65	25	10,0	X	X	X
selênio	20	55,0	20,0	X	x	25,0

Insuficiente Suficiente

Suplementação diária

	Baristar (50- 105 reais)	Natele	Materna (35 – 46 reais)
Ferro (18)	14	30	60,0
Ác.fólico (0,4)	0,24	0,60	1,0
Zinco (15)	7,0	15	25,0
B1 (1,2)	1,2	3	3,0
B12 (2,4)	2,4	2,2	12,0
Biotina (30)	30,0	X	30,0
Vit K (120)	65	X	X
Selênio	34	X	25,0

Insuficiente Suficiente

Suplementação – Não fornecida SUS!

"O processo de incorporação do polivitamínico para obesidade pós-cirurgia bariátrica é uma demanda interna do Ministério da Saúde, encaminhada pela Coordenação de Alimentação e Nutrição (CGAN). O processo foi recebido pela Sec. Executiva da CONITEC, contendo parecer técnico-científico sobre sua eficácia. Entretanto, estamos no aguardo da avaliação econômica e estimativa do impacto orçamentário, que devem ser elaborados pela área técnica (CGAN), em conformidade com os pré-requisitos exigidos pela legislação de incorporação de tecnologias. Dessa forma, apenas após o recebimento da documentação completa poderemos iniciar nosso prazo legal de análise, de 180 dias."

Agosto 2014 --- Analista Técnica de Políticas Sociais - Comissão Nacional de Incorporação de Tecnologias no SUS – CONITEC / Departamento de Gestão e Incorporação de Tecnologias em Saúde – DGITS / Secretaria de Ciência, Tecnologia e Insumos Estratégicos – SCTIE / MINISTÉRIO DA SAÚDE- MS/Brasil

A Cirurgia Bariátrica, é somente a <u>primeira etapa</u> de um

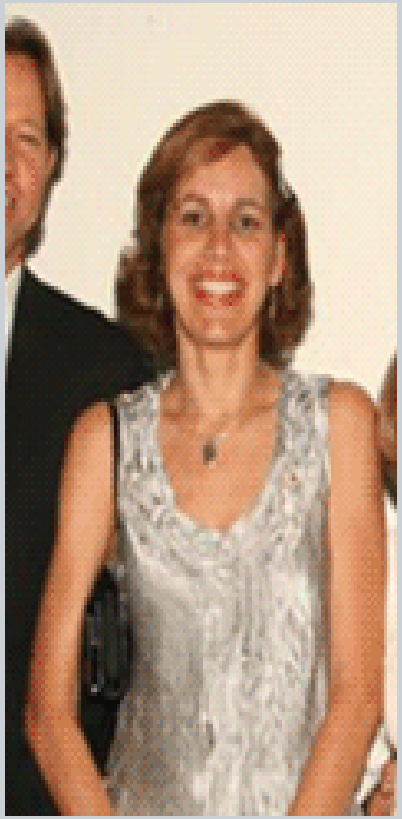
LONGO PROCESSO de aprendizado, mudança de

hábitos e controle clínico, que irá durar por toda

a vida !!!

Endocrinologistas Bariátrica UFSC

Dra. Marisa Coral



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OBRIGADA!!!!

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Obrigada !

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