WEIGHT LOSS SURGERY CHEAT SHEET

PRE-OPERATIVE -

(Available on the Clinical Library: xxxx)

CRITERIA

NIH criteria: http://win.niddk.nih.gov/publications/gastric.htm
ASMBS: American Society for Metabolic and Bariatric Surgery

- BMI >40.
- BMI 35-40 with a SERIOUS obesity-related health problem such as type 2 diabetes, coronary heart disease, or severe sleep apnea (Will consider SEVERE HTN, DJD or ↑lipids).
- Acceptable operative risks per ACC guidelines.
- Ability to participate in treatment and long-term follow-up
- Ability to Exercise: "May be the most important factor that can help patients achieve long-standing and successful weight loss."
- Demonstrates an understanding of the operation, risk s, benefits, and long term lifestyle changes (no dementia, cognitive impairment, learning disabilities).

Other:

- Up to date with age appropriate cancer screening.
- Normal TSH
- Maximize Diabetes control; ideal HbA1C < 8
- Needs to stop cigs/tobacco. HIGH risk serious GIB/ulcer.

ECONSULT REFERRAL

Patient will be triaged automatically to one of 4 centers (RCH, SSF, FRE, and Fresno)
EConsult: 3 options

- Referral for surgery: no prior operation who meets criteria
- Follow up prior operation: Pt needs basic education.
- Complications prior operation: Op report/anatomy, essential for triage.

BARIATRIC CONSULT

Bariatric MD's will determine whether patient is an appropriate candidate. They may request further medical or psychological work up / evaluation at the patient's home facilities.

POST OPERATIVE

FOLLOW UP -
Bariatric clinic: -
RYGB/Sleeve: Post-op 2, 6wks, 3, 6, 12 mths then annually. -
LAGB: First fill 6wks. Routine 6, 12 mths, annually and prn fill - needs. -
LABS: 6mths, annually: Chem 10, ALT, AST, PT, Albumin, - Prealbumin, Ferritin, Iron/TIBC, CBC, Serum B12, RBC folate, B1, - 25 OH Vit D, PTH, Alk phos(metabolic bone disease) Vit A, - glucose, lipids, HbA1c. Use "PNL BAR" in Order Entry in HC - Consider copper deficiency if unresolved hypochromic anemia.
Meds: Actigall and Pepcid may be used in some patients.

MEDICATIONS AFTERWARDS (RYGB and Sleeve)

NSAIDS: contraindicated LIFELONG due to risk bleed in relatively ischemic pouch and INACCESSIBLE remnant stomach
ASA: (those with MI/CVA), lowest possible dose and cover with PPI bid lifelong.
Prednisone: cover with PPI bid for as long as on Prednisone
GI Toxic Meds: (e.g. MTX). Consult with specialist re less GI toxic alternative, if not PPI bid for as long as on med.
Absorption: Presume altered, monitor levels if possible, if not monitor clinical effect. Dose may need adjustment. Watch BirthControl/psych/anti-seizure meds.
Immunosuppressants: Increased risk Port infections.
Levothyroid: Follow closely post op as may mal-absorb. May need dose adjustment
ETOH: increased risk ulcer, empty calories, addiction transference, increased risk intoxication/DUI.

VITAMINS AND SUPPLEMENTS (RYGB and Sleeve):

MVI: 1 BID. Avoid kids and prenatal vitamins (lack minerals). GOOD: Centrum, Wal-Mart Equate, Costco.
Deficiency: Vit A: increase to 10000 IU qd, Folate: 1000mg a day, Copper: 3mg a day, Zinc 60mg po qd short term.

Calcium CITRATE:
Carbonate will NOT be absorbed. 1500mg calcium daily in divided doses, usually 2 tabs TID or liquid equivalent.
Deficiency: consider as high risk for osteoporosis. Should have early DEXA.

Vit D: In Calcium +D (1200-1500iu) and 2 MVIs (800iu) PLUS vit D capsule 2000iu qd, minimum 4000 IU qd LIFELONG.
Deficiency: Mild (D 20-29); Baseline PLUS additional 2000 IU qd. Severe; Baseline PLUS 50000 IU a wk x 12-16 wks.

Vit B12: 3000mcg minimum a wk SL. Oral NOT absorbed. IM rarely needed. Serum B12 level should be > 400mcg/mL
Deficiency: 1000mcg SL a day. Repeat labs in 1 mth.

Vit B1: 50-100mg po QD. B complex ok. If excessive vomiting, increased risk deficiency and neurological symptoms.
Deficiency: rare in compliant pts. If mild and no symptoms 100mg po qd. If symptoms will need IV.Thiamine.

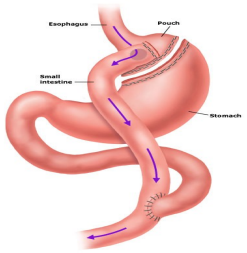
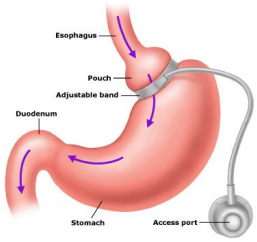
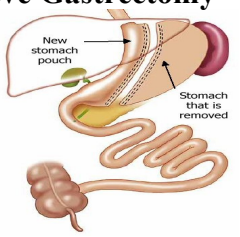
Iron: - ALL menstruating women as ferrous fumarate or ferrous gluconate, NOT ferrous sulfate (irritating to pouch). Not within 2 hrs of food, MVI, calcium, tea. (QHS good). Take with Vit C 500mg tab (NOT OJ). Aim for 50-100mg ELEMENTAL iron qd. Initially just see low Ferritin with normal iron studies.
Deficiency: Ferrimin 150mg with Vit C at least 1-2 a day. Available only from; www.dailyvite.net. 1 866 358 9773. CONTROL heavy menses.

Copper: Check for copper deficiency if Fe def anemia not responding to treatment.

Zinc: Check if excessive unresolved hair loss, dermatitis. Deficiency: 60mg po qd short term, Avoid long term, ulcerogenic and - inhibits copper absorption. -

Treatment of Common Problems with RYGB: -

Nausea/Vomiting: Very common: Usually due to eating too much, too quickly or food intolerances. If persists consult Bariatric clinic -
Abdominal Pain: Often due to constipation and gas. -
Epigastric: Consider **Ulcer** in pouch or **Stricture**. Usually >3mths post op. STOP NSAIDS,CIGS or ETOH. Check H. Pylori, treat if not - treated in past. Trial PPI bid and Carafate QID. If not better refer back to Bariatric clinic for possible referral for EGD.
RUQ: Consider **Gallstones**. 30% post RYGB. Usually > 6mths post op. Refer to general surgery. -
Upper abdominal: Often LUQ, no precipitating factors: Consider **Internal hernia** and **Bowel obstruction**. Refer to bariatric clinic -
Assoc with fever and tachycardia: Consider **Leak** (within 2wks of surgery). Emergent ER eval with Bariatric surgeon. -
Dumping: 30mins after eating high sugar/fat food. Sweating, flushing, lightheadedness, tachycardia, palpitations, nausea, diarrhea, - cramping. Food and Symptom log usually confirms. Responds to dietary modification with low sugar, high protein diet.
Hypoglycemia: 1-3 hours after eating high carb meal. Fasting glucose/insulin/cpeptide NORMAL. Post Prandial glucose <55mg/dl, - insulin >3uU/ml, cpeptide >0.6mg.ml. Food and Symptom log usually confirms. Responds to dietary modification. Meds such as - Acarbose or Somatostatin may be helpful if symptomatic despite dietary changes. Refer to Bariatric clinic if persists. -
Constipation: High protein diet lacks fiber, not enough fluids. Rx; MIN 64 oz calorie free fluid a day, add fiber (Metamucil, Benefibre or - Citrucel), Colace, MOM, Miralax -
Gas: Avoid gas producing foods, Sipping through straws (swallowed air). Try Gas X, Beano or Probiotics. -
Hair loss: very common. Worse with Fe, Zn, protein deficiency. Ensure adequate protein (70gms/day). MVI with at least 15mg Zinc in it. - Additional zinc can irritate the pouch. Avoid too much traction on hair. Full re-growth of hair is expected once weight loss stabilizes.
Changes in taste and smell: Foods that pt enjoyed before surgery may take on a new flavor and may not be as appealing. Sensitivity to - smells such as food odors or perfumes is also common. Zinc deficiency can cause loss of taste.
Weight Regain: VERY RARLY surgical cause. UGI to rule out. Due to failure to maintain post surgical lifestyle; 1200cal a day diet - PLUS 45minutes exercise a minimum 5 days a week. Stop snacking, grazing, liquid calories and increase exercise. -

Type of Surgery / Details	RYGB	Lap-Band	Sleeve Gastrectomy
			 **Only in select patients**
Excess weight loss at 10 yrs	50-80% (within one year)	40% (over 3 - 5 years)	50-80% (within one year)
Reversible	No	No. Band removable (Difficult)	No
30 day Mortality	0.5-2%	0.1%	?
PE (30% early mortality)	1-3% (higher in open surgery)		?
Bleeding /Transfusion	< 1%	< 1%	<1 %
Dumping syndrome	70% usually resolves after 1 yr	No	No
Hernias	up to 20% with open surgery (Most cases done laparoscopically)		
Complications	Cholecystectomy: 30%. Internal hernia/bowel obstruction 1- 5% Anastomotic ulcer: 3-4% Stricture: 2-5% Leak: 1-3% (30% mortality) Wound infection: 3% lap, 7%	Port/tubing probs: .4 -7% Slippage/Prolapse: 2-14% Erosion: 0-5% Infection: 0.3-9% Port site pain Pseudoacalasia: 10% Re-operation: 20-30%	? As a primary weight loss surgical procedure there is no long term data.
Vitamin deficiencies without supplements	Definite: advise LIFELONG supplements	Common: Advise MVI, B-complex, calcium plus D qd	Very Likely. Advise LIFELONG supplements

LIFESTYLE AFTER WEIGHT LOSS SURGERY

Weight regain	20%-30% patients at 10 yrs	Introduced 2001 in USA	No long term data
	Usually due to dietary and exercise noncompliance Surgical/anatomic causes RARE. **NO** surgical options except RARE cases with surgical cause. Encourage pt to resume lifestyle changes: (appt with dietitian, exercise classes)		
Diet	Three WELL CHEWED, high protein (60-70gms/day), low fat meals a day NO snacks NO liquid calories (special coffees (Starbucks), fruit juices, sodas) NO liquid WITH meals. Drink before meals. Aim for approx 1200cal /day At least 64oz non calorie fluids/day.		
Exercise	ESSENTIAL for weight loss and weight loss maintenance: AT LEAST 45 mins 5/7 days.		
Support Group	Post operative support group STRONGLY advised. Patients do better with regular attendance		