THE BAPTIST HEALTH SYSTEM'S MEDICATION ASSESSMENT AND IMPLEMENTATION REVIEW

Standardized clinical and financial cost-benefit analyses designed to build sustainable and safe medication protocols.

MEDICATION GUIDELINES and ASSESSMENT REQUEST: WEIGHT LOSS

Weight loss drugs: Employee Health Plan. Average spend for weight loss drugs as a percentage of peer spend was 2-4% in 2022. For Baptist, it was 14%. We need an established protocol to guide usage of anti-obesity medications (AOMs) with a focus on GLP-1 and GLP-1/GIP agonists. Critically, the prescribing volume and beneficial indications for GLP-1s and GLP-1/GIPs are increasing. Combined with the exceptionally high cost of these medications and proposed new therapies, most health systems are working to balance patient care with system viability.

STATEMENT OF PURPOSE

The WHO defines an overweight status/obesity as an abnormal or excessive fat accumulation state, which presents a risk to health. Lifestyle modification, medication therapy and bariatric models, including surgical intervention strive to impact these negative variables of wellbeing. Based on best practice and consensus, our goal is a healthsystem model built to support patients and providers, utilizing pharmacologic agents and non-pharmacologic interventions for weight loss and maintenance. This will include parameters and utilization guidelines for the prescribing of GLP-1 and GLP-1/GIP medications as well as monitoring patient compliance, tolerance, and drug effectiveness.

STEP THERAPY: Initiating a Therapeutic Program

Set Expectations

Engage thorough and compassionate counseling around healthy eating, physical activity and health-seeking behaviors.

Lifestyle Modification

Set a weight loss goal. As a guide, 5% of total body weight is a standard outcome measure. If the goal (or objective progress to the goal) is not achieved with nutritional modifications and increases in energy expenditure within 3-6 months, consider medication therapy in addition to ongoing lifestyle modification.

Medication Review for Culprits of Weight Gain or Refractory Weight Loss

Diabetes: Insulin, Sulfonylureas, TZDs, Meglitinides.

Anti-Hypertensives: α-adrenergic blockers, β-adrenergic blockers.

CNS: **Mirtazapine**, SSRIs (**Paroxetine,** Fluoxetine, Sertraline, Fluvoxamine), TCAs (**Amitriptyline, Doxepin, Imipramine**), **Lithium**, MAOIs (**Isocarboxazid, Phenelzine, Tranylcypromine**).

Antipsychotics – 1st Generation: **Thorazine, Thioridazine**, Haldol, Fluphenazine

Antipsychotics – 2nd Generation: **Clozapine, Olanzapine,** Quetiapine, Risperidone

Antiepileptics: Carbamazepine, Gabapentin, Valproate

Antihistamines: Diphenhydramine, Doxepin, Cyproheptadine
Others Common Culprits: Steroid Hormones, Progestin-Only Contraceptives, Protease Inhibitors

Steps to Take if Obesogenic Medications are Identified

Consider an alternative agent that is weight neutral or associated with weight loss. If medication rotation is not a viable option: 1. Use the lowest possible dose for the shortest duration. 2. Counsel on behavioral interventions. 3. Co-prescribe a weight-neutral or weight-loss medication to treat the same disease in order to ↓ the dose and/or frequency of the obesogenic medication. 4. Consider a return to the prescribing provider for clinical assessment and a discussion of interventional options. **See appendix for additional information.**

Medication Therapy

Reassess the weight loss goal. Counsel: This is a long-term management strategy not a "quick fix". Not every drug works for every patient. There is a point of maximal therapeutic effect, and a weight-loss plateau will occur. Ongoing lifestyle modification is vital for long-term maintenance and risk reduction.

Medication Therapy - Referral Options for Providers

Initial: Discuss with the patients PCP. These are common discussions and assessments within primary care. Additional consideration: Endocrinology. 202-4YOU is another resource to consider. For bariatric consultation: Baptist Center for Bariatric and Reflux Surgery.

Informed Consideration for Bariatric Surgery

Bariatric surgery is a viable clinical intervention for patients with a BMI >40 or a BMI >35 with at least 1 comorbidity (such as hypertension, DMII, cardiac disease and obstructive sleep apnea). We strongly recommend this as a point of discussion between the patient and their provider.

Caution

Due to their teratogenic potential, **all Tier I and Tier II** medications are contraindicated in pregnancy. Patients who are pregnant or who plan to become pregnant in 2-3 months should be immediately weaned and/or discouraged from initiating medication therapy.

Consideration for Initial Medication Therapy: TIER I

Tier I Medications

Phentermine-Topiramate (Qsymia), Bupropion-Naltrexone (Contrave) or Orlistat (Xenical). Decision-making to be driven by patient comorbidities, patient preference, contraindications, tolerance, and insurance cost/coverage.

Possible Contraindications to a Tier I trial

Acute life-limiting illness. Intent: Address the needs of patient's requiring urgent intervention. The provider attests that weight loss with a GLP-1 carries the highest likelihood of improved short-term and long-term prognosis. This may include diagnoses such as transplant or urgent oncologic, orthopedic or pulmonary HTN intervention.

Clinical Contraindications (CI) to Tier I medications. Intent: Address the needs of patients with clinical contraindications to a challenge or rechallenge of a Tier I medication.

Active GLP-1 or GLP-1/GIP agonist use. Intent: Address the needs of patients establishing care on a GLP-1 who are meeting weight loss goals by the best of the providers ability to ascertain.

Once able, all populations are required to participate in education and (for the EHP patient) the Employee Wellness Weight Management program.

Tier I Medications

Phentermine-Topiramate (Qsymia)

Dosing: 3.75/23mg daily for 2 weeks then increase to 7.5/46mg daily. Reevaluate in 12 weeks. If patient has not lost at least 3% of baseline body weight, escalate dosing to 11.25/69mg daily for 2 weeks then increase to 15/92mg daily as maintenance.

Monitoring: Assess for depression/suicidal ideation. Serum electrolytes with bicarbonate and creatinine measured before and ~4 weeks after initiation.

Potential Indications: Patients with obesity who do not have cardiovascular disease.

Adverse Effects: Xerostomia, constipation, paresthesia and a dose-related increase in psychiatric (i.e., depression, anxiety) and cognitive (i.e., disturbance in attention)

Contraindications: Patient with known cardiovascular disease (HTN or coronary heart disease). Pregnancy (current or planned). Hyperthyroidism. Glaucoma. Use of MAO-I within 14 days.

Prescribing Pearls: Weigt gain will recur upon cessation. Specialty pharmacy option available for decreased cost. Slow dose escalation and de-escalation.

Bupropion-Naltrexone (Contrave)

Dosing: Dose 8mg/90mg. Week 1: 1 pill QAM. Week 2: 1 pill BID. Week 3: 2pills QAM, 1 pill QPM. Week 4: 2 pills BID.

Potential Indications: Patient with active tobacco use and obesity seeking pharmacologic treatment for both. Excess calorie consumption from alcohol intake related to Naltrexone's stand-alone indication for alcohol use disorder.

Adverse Effects: Nausea, headache, constipation, insomnia, emesis, dizziness, xerostomia.

Contraindications: Patient on opioids due to Naltrexone's μ-receptor antagonism. Patient at risk for alcohol withdrawal and seizures due to Bupropion's potential to lower the seizure threshold. It can also raise blood pressure and heart rate. Pregnancy current or planned.

Prescribing Pearls: Specialty pharmacy option available for decreased cost

Orlistat (Xenical)- OTC

Dosing: 120mg capsule TID with each main meal (during or 1 hour after the meal)

Potential Indications: Preference for an agent with a longer-term safety and efficacy profile.

Adverse Effects: Intestinal borborygmi and cramps, fecal incontinence, oily spotting, flatus. Rare severe liver injury (counsel to contact provider with any signs of liver inflammation).

Contraindications: Pregnancy or plans for pregnancy , states of chronic malabsorption, cholestasis, or a history of calcium oxalate stones

Prescribing Pearls: Improved tolerance on a low-fat diet. Consider fiber supplementation to improve tolerance. Consider another option if history of IBS-type symptoms.

If Weight Loss Goal Not Achieved with Initial Tier I Therapy

If the total body weight loss goal (standard 5%) is not reached or progress to the goal is not reached, consider Tier 1 dose escalation or switching to another Tier 1 medication prior to a GLP-1 or GLP-1/GIP agonist.

If the side effect profile exceeds tolerance, consider an alternate Tier 1 medication prior to a GLP-1 or GLP-1/GIP agonist.

If a GLP-1/GIP Tier 2 medication is ordered, it will undergo an initial authorization process and a renewal process. For initial orders and reauthorizations, an EPIC "Weight Management Order Set" will serve as a comprehensive guide. For renewals, achieving and maintaining a 5% TBWL will be required. For Wegovy, achieving and maintaining 5% TBWL at 3- 6 months and 10% at 6-12 months will be required.

TIER II: CLINICAL STANDARDS for GLP-1 Agonist and GLP-1/GIP Agonist Use

Inclusion Criteria (based on FDA-approved indications)

Adults with a Body Mass Index (BMI):

- 30 kg/m^2 or greater. Obesity defined as a BMI >/= 30.
- 27 kg/m^2 or greater with at least one weight-related comorbid condition (e.g., hypertension, type 2 diabetes, or dyslipidemia).

Pediatric patients aged 12 years and older with an initial BMI at the 95th percentile or greater standardized for age and sex.

Patients must carry a diagnosis of overweight with comorbidity, obesity or other related code. Overweight defined as a BMI 25-29.9.

Exclusion Criteria

Pregnancy
Type I diabetes
History of pancreatitis or severe gastroparesis
History of personal or family history of medullary thyroid carcinoma (MTC) or in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2).

Laboratories

Laboratories are included for consideration. **These are not required for treatment**. As some recommendations for consideration may exceed standard insurance coverage, they will need to be tied to a qualifying diagnosis.

Consideration for Screening: **TSH**. Baseline A1C (CDC: Age >45 or Age <45 with diabetic risk factors) if not already completed. Pregnancy excluded. CBC/CMP if not already checked.

Addressing potential hormonal etiologies of weight gain/refractory weight loss:
Consider adrenal and testosterone levels.

Addressing underlying nutritional deficiencies that may be exacerbated by weight loss:
Consider bloodwork to assess for nutritional deficiencies.

Assessing triglycerides as a marker for GLP-1 agonist or GLP-1/GIP impact. For abnormal panels, consider a lipid panel every 3 months until within goal then every 6-12 months unless active medication changes.

Patient specific labs as deemed necessary by the prescribing physician.

FDA approved GLP-1 agonists for weight loss

Important Note: Many patients are utilizing compounding pharmacies for GLP-1 and GLP-1/GIP agonist access. We do not condone and actively **recommend against** this practice. The FDA has documented concern for both the content and the safety of these pharmaceuticals. However, patients may still seek this clinical option. We recommend open communication to 1. Discuss harms and 2. Monitor for known and possibly unexpected adverse events in this patient subset.

Semaglutide (Wegovy approved for weight loss; Ozempic approved for DMII) and **Liraglutide** (Saxenda).

Wegovy is our **Preferred AOM** Agent. **Ozempic** is our **Preferred AOM** Agent **if Concomitant Type II Diabetes**.

Semaglutide

Dosing: Initial: 0.25mg/week X 4 weeks; 0.5mg /week X 4 weeks; 1.0mg/week X for weeks; 1.7mg/week X 4 weeks (This can be maintenance dose if desired weight loss is achieved); 2.4mg/week maintenance. Can slow titration as needed for intolerance.

Dosing Goal: Maximum dose of 2.4mg weekly; if unable to tolerate or achieving goal weight loss goal with a lower dose, lower doses can be used.

Duration: Long-term use is anticipated to maintain weight loss.

Data: Greater efficacy for weight loss that Liraglutide. Weekly administration (versus daily). Only the injectable formulation is approved for weight loss.

Potential Indications: Patients with type II diabetes and established CV disease or chronic kidney disease.

Adverse Effects: Nausea, diarrhea, emesis. Rare cases of angioedema and anaphylaxis.

Contraindications: Pregnancy, history of pancreatitis or personal or family history of medullary thyroid cancer or multiple neoplasia 2A or 2B.

Monitoring: Blood glucose if in combination with insulin or an insulin secretagogue (i.e., sulfonylurea); consider dose reduction. Monitoring of patients with known diabetic retinopathy.

Pearls: Consider a MVI with therapy. If there is an expectation of weight loss >50 pounds over 3 months or less, consider Ursodiol for gallstone prevention. If persistent N/V hold the GLP-1 and consider nutritional labs such as B12, vitamin D and thiamine.

Liraglutide (Saxenda)

Dosing: Week 1: 0.6mg SQ daily. Week 2: 1.2mg SQ daily. Week 3: 1.8mg SQ daily. Week 4: 2.4mg SQ daily. Week 5: 3.0mg SQ daily, maintenance dose

Dosing Goal: Maximum dose of 3mgs daily; if unable to tolerate or achieving goal weight loss goal with a lower dose, lower doses can be used.

Duration: Long-term use is anticipated to maintain weight loss.

Data: Shown to ↓major CV disease events in adults with type II DM and pre-exiting CV disease.

Potential Indications: Patients with type II diabetes and established CV disease.

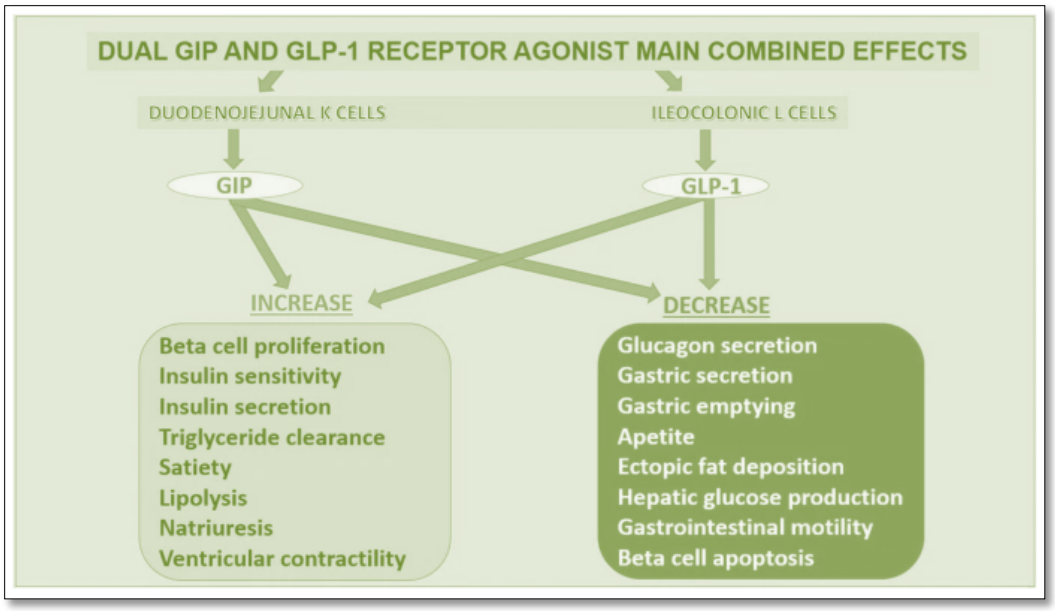
Adverse Effects: Nausea and emesis. Diarrhea, hypoglycemia, anorexia. Serious but less common: pancreatitis, gallbladder disease and renal impairment.

Contraindications: Pregnancy, history of pancreatitis or personal or family history of medullary thyroid cancer or multiple neoplasia 2A or 2B.

Monitoring: Blood glucose if in combination with insulin or an insulin secretagogue (i.e., sulfonylurea); consider dose reduction.

Pearls: Consider a MVI with therapy. If there is an expectation of weight loss >50 pounds over 3 months or less, consider Ursodiol for gallstone prevention. If persistent N/V hold the GLP-1 and consider nutritional labs such as B12, vitamin D and thiamine.

FDA approved GLP-1/GIP agonists for weight loss



Tirzepatide (Zepbound)

Dosing: Week 1: 2.5 mg once weekly. Week 4: Increase to 5.0mg. Week 8: Increase to 7.5mg. Week 12: Increase to 10mg. Week 16: Increase to 12.5mg Week 20: Increase to the maintenance dose of 15 mg.

Dosing Goal: Maximum dose of 15mgs daily; if unable to tolerate or achieving goal weight loss goal with a lower dose, lower doses can be used.

Duration: Long-term use is anticipated to maintain weight loss.

Data: Not yet shown to ↓major CV disease events in adults with type II DM and pre-existing CV disease. Studies underway. Clinical trials did not show an ↑ in major cardiovascular events.

Potential Indications: Patients with type II diabetes.

Adverse Effects: Nausea and emesis. Diarrhea, hypoglycemia, anorexia. Serious but less common: pancreatitis, gallbladder disease and renal impairment.

Contraindications: Pregnancy, history of pancreatitis or personal or family history of medullary thyroid cancer or multiple neoplasia 2A or 2B.

Monitoring: Blood glucose if in combination with insulin or an insulin secretagogue (i.e., sulfonylurea); consider dose reduction.

Pearls: Consider a MVI with therapy. If there is an expectation of weight loss >50 pounds over 3 months or less, consider Ursodiol for gallstone prevention. If persistent N/V hold the GLP-1/GIP agonist and consider nutritional labs such as B12, vitamin D and thiamine.

Weight Management Order Set

Diagnosis: Required

[ ] Overweight (BMI >27) with Complications (HTN, DMII, Cardiac Disease, OSA. HLD). ☐ *Import BMI to note.*
[ ] Class I Obesity (BMI >30) [ ] Class II Obesity (BMI >35) [ ] Class III Obesity (BMI >40). ☐ *Import BMI to note.*

For All Weight Management Patients: Lifestyle Modification and Potential Laboratories

[ ] Education and Education Modules: Overview and discipline-specific sessions: Access directions for the AVS.
[ ] Laboratory: [ ] TSH [ ] A1C [ ] CMP [ ] CBC. Consider [ ] Vitamin D [ ] Thiamine [ ] Testosterone [ ] ACTH Stimulation Test
[ ] Monitoring: MyChart weekly weight monitoring flowsheet [ ] Print monitoring guideline if MyChart not available [ ] RTC

Tier I Program

Medications

[ ] Phentermine-Topiramate (Qsymia): Dosages [ ] Bupropion-Naltrexone (Contrave): Dosages [ ] Orlistat OTC: Dosages

Monitoring

[ ] MyChart weekly weight monitoring flowsheet. [ ] Print a monitoring guideline if MyChart not available. [ ] RTC

Tier II Program

Requirements

[ ] Provided counsel; completed trial of other interventions without satisfactory result (<5% total body weight or ADE)
[ ] Contraindications for Tier I: Menu: [ ] Side effect *** [ ] Allergy [ ] Clinical contraindication *** [ ] Active/stable on a GLP
[ ] For EHP, patient has completed engagement sessions and is open to an Employee Wellness Program referral
[ ] For EHP, patient has been a member of the EHP for at least 6 months unless already on therapy.

Medications

[ ] Semaglutide (Wegovy): Include dosages, which are different between the two [ ] Liraglutide (Saxenda): Include dose
[ ] AVS Instructions: Discussion of increased copay and offset with manufacturer assistance and relief (provide link)
[ ] Short-term symptom-directed therapy: Ondansetron: Include dosages x 2 weeks

Consultation

[ ] Employee Wellness – If a GLP-1 agonist is ordered. EHP patients only.

Monitoring

[ ] MyChart weekly weight monitoring flowsheet. [ ] Print a monitoring guideline if MyChart not available. [ ] RTC

Consultations [ ] Bariatric Surgery (General Guidelines: BMI>40 or BMI>35 with at least 1 comorbidity as noted above)

Documentation [ ] Import into clinic note

Charges [ ] G code for counseling autocapture for billing

Export to the AVS: Starting the Journey Together: You and Baptist Health

The most successful weight loss program is one that educates, one that engages lifestyle changes such as diet and exercise and one that supports your individual needs including the physical, the psychological and, for some, the spiritual. Management may include medications or even surgery.

When medications are used, they are prescribed **long-term**. They are effective but you will reach a **plateau**. They also have potential **side effects**. Common side effects include nausea, diarrhea, vomiting, constipation and stomach-area pain. More serious side effects can alco occur. Watch for signs of pancreatitis (severe/worsening abdominal pain, nausea/vomiting, fever/chills), cholecystitis (intense sudden pain in the upper right abdomen, pain that spreads to your back or shoulder blade, fever/chills), depression (persistent sadness, anxiousness or emptiness; ideas of self-harm) or common side effects that prevent eating or daily activities. **If you experience these symptoms, contact your physician immediately.**

Education Modules

These are required support services proven to ↑ weight loss success.

Overview: ☐ Nutrition. Therapy. Pharmacy. Physician.

Discipline-Specific Sessions: ☐ TBD

Access: **www. yourwebsitegoeshere.org**

Coupons

☐ Will be transmitted to your pharmacy.

☐ Link

Import to the Note*: Treatment is being requested for weight loss*. @Weight@ _____. @BMI@ _____. Obesity is a multifactorial multifaceted disease. It requires longitudinal clinical, psychosocial, educational and support services. Interventions may include dietary and lifestyle modification, medication management and bariatric surgery.

I have discussed the above variables as they apply to my patient's unique clinical circumstances. We have reviewed the risks, benefits and alternatives of relevant options. I have emphasized the long-term nature of obesity management.

If medications are employed, my patient meets medical *requirements: overweight (BMI >27) with complications (HTN, DMII, cardiac disease, OSA, HLD) or obesity (BMI >30). If used, medications will be an adjunct to lifestyle modification (caloric restriction, exercise, behavioral support, other supports). If a medication is prescribed, I have not prescribed another GLP-1 agonist or compound product.*

Through shared decision-making, we move forward with a plan that best balances benefit, risk and ongoing monitoring in the context of optimizing health and stewardship. Patient voices understanding.

Weight Management Reauthorization Order Set

Diagnosis

[ ] Overweight (BMI >27) with Complications (HTN, DMII, CV Disease, OSA. HLD). ☐ *Import past + current BMI to note.*
[ ] Class I Obesity (BMI >30) [ ] Class II Obesity (BMI >35) [ ] Class III Obesity (BMI >40). ☐ *Import past + Current BMI to note.*

Tier I Program

Medications

[ ] Phentermine-Topiramate (Qsymia): Dosages [ ] Bupropion-Naltrexone (Contrave): Dosages [ ] Orlistat OTC: Dosages
[ ] Documentation: Import into clinic note

Monitoring

[ ] MyChart weekly weight monitoring flowsheet. [ ] Print a monitoring guideline if MyChart not available. [ ] RTC

Tier II Program

Medications

[ ] Semaglutide (Wegovy): Include dosages, which are different between the two [ ] Liraglutide (Saxenda): Include dose
[ ] I confirm my patient has not experienced red flags for ongoing GLP-1 agonist use including but not limited to severe gastroparesis, intestinal obstruction, cholecystitis and/or pancreatitis.
[ ] AVS Instructions: Discussion of increased copay and offset with manufacturer assistance and relief (provide link)
[ ] Documentation: Import into clinic note

Monitoring

[ ] MyChart weekly weight monitoring flowsheet. [ ] Print a monitoring guideline if MyChart not available. [ ] RTC

Consultations [ ] Bariatric Surgery (General Guidelines: BMI>40 or BMI>35 with at least 1 comorbidity as noted above)

Charges [ ] G code for counseling autocapture for billing

Import into the Note: *Tier I: Reauthorization of treatment for weight loss is being requested.*

Previous BMI or BMI at time = 0: ____. Current BMI: _____.
Current weight: _____. Previous weight or weight at time = 0: _____.
Weight Loss is ≥ 5%.

Import into the Note*: Tier II: Semaglutide/Liraglutide reauthorization is being requested. This is for weight loss. I confirm my patient has not experienced red flags for ongoing GLP-1 agonist use including but not limited to severe gastroparesis, intestinal obstruction, cholecystitis and/or pancreatitis. This medication is not being prescribed with a compound product or another GLP-1 agonist.*

Previous BMI or BMI at time = 0: ____. Current BMI: _____.
Current weight: _____. Previous weight or weight at time = 0: _____.
Weight Loss is ≥ 5%.

Monitoring for Effectiveness and Side Effects

Required: Initial visit for Weight, blood pressure and heart rate evaluation at 4-12 weeks.

Following, Consider a RTC monthly with each dosage change until stable at the maximum dose. Once stable, consider follow-up every 3-6 months.

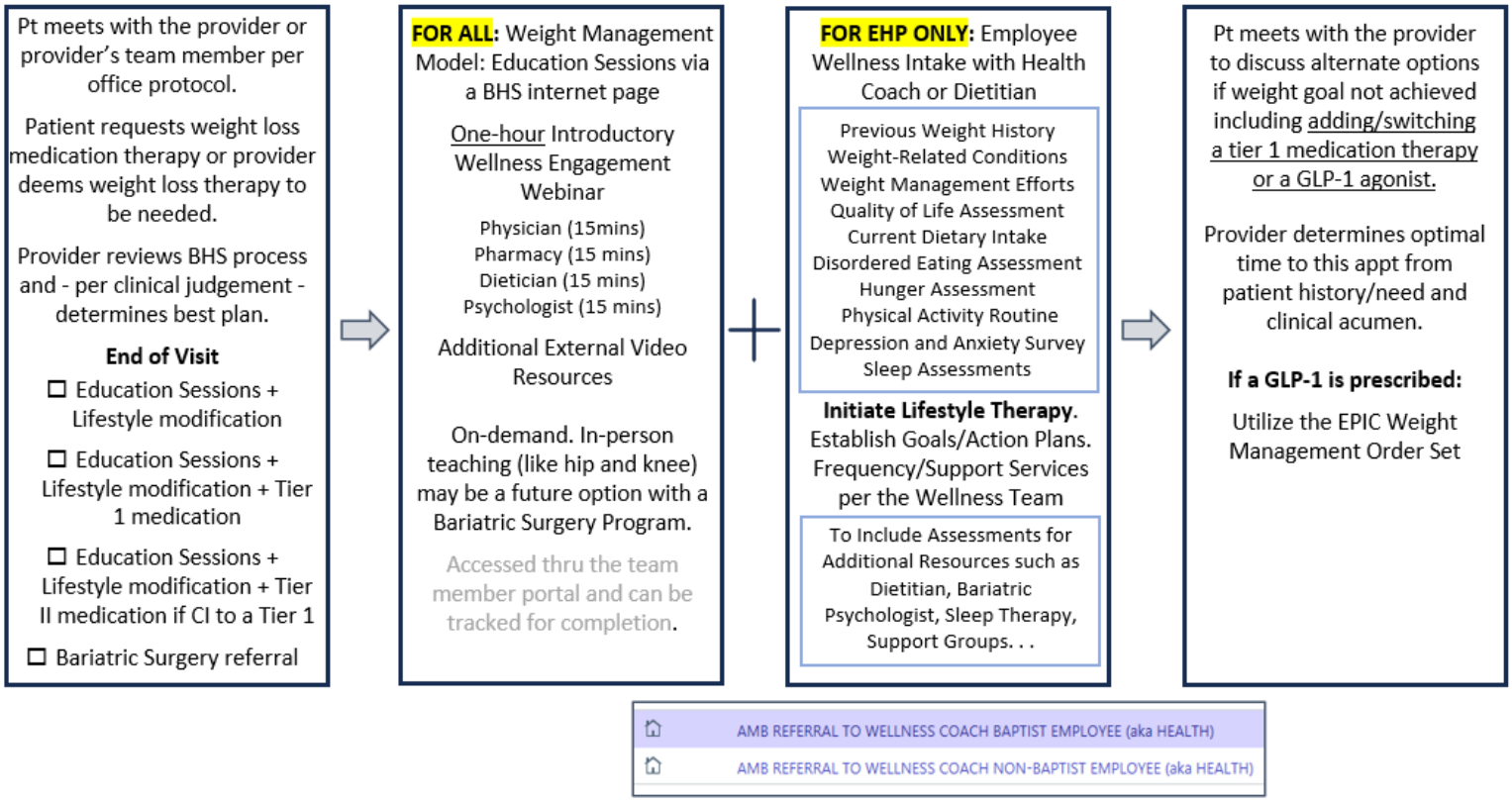
Ideal monitoring will depend on provider acumen, patient circumstance, and product availability.

Monitor for adverse events each visit to include pancreatitis, gall bladder disease and feelings of depression and/or suicidal ideation.

Hold one dose of the GLP-1 for planned procedures unless otherwise instructed by surgery or anesthesia. See appendix for the American Society of Anesthesiologists guidelines.

For diabetics, anticipate potential changes in medication requirements and monitoring. Consider increased glucose monitoring until GLP-1 dose is stable.

Utilizing Health System Resources for Education and EHP Interventional Services



Monitoring/adapting to Potential Unintended Outcomes of Increased Usage

Iatrogenic gastroparesis requiring hospitalization.

Iatrogenic acute OR chronic pancreatitis requiring hospitalization.

Iatrogenic intestinal blockage.

Suicidal ideation or suicide.

OUTCOME ANALYSIS and TRACKING to include Reauthorization

Goal to identify patients receiving therapy who are not meeting the clinic standards. Renewal criteria detailed here and incorporated into the reorder set. BPP to audit for clinical outcomes and unintended effects.

☐ Patient has lost >/= 5% of total body weight or BMI and is maintaining that weight within expected clinical variability. Exception: Wegovy as detailed below.

☐ Patient has not experienced red flags for ongoing GLP-1 agonist or newer generation medications including severe gastroparesis, intestinal obstruction, pancreatitis.

☐For Wegovy, based on EBM as presented in NEJM 2021, if not achieving and/or maintaining 5% weight loss at 3-6 months or 10% at 6-12months do not meet criteria for ongoing treatment.

If criteria for ongoing GLP-1 agonist/Tier 2 medication is not met, it may be acceptable to initiate a Tier 1 agent to avoid weight regain.

PHARMACY ASSESSMENT and INPUT

Pharmacy engaged in all aspects of this clinical build. No additional inputs.

Supplementary Documentation and Notations

Obesogenic Medication Charts

A Common Predicament: Options for patients unable to receive an GLP-1 agonist for weight loss

Elective Surgery as recommended by the American Society of Anesthesiologists

Supporting Resources and Protocol Disclaimer

Obesogenic Medication Charts

Diabetes treatments and weight effects

Not everyone gains weight

Interventions	Expected HbA1c Improvement (%)	Weight Effect
Interventions Associated with Weight Gain		
Insulin	1.5-2.5	2-10 kg weight gain
Sulfonylureas	1-2	1-5 kg weight gain
Meglitinide Analog	0.5-1.5	0.5-2 kg weight gain
TZD	0.5-1.4	1.5-4.8 kg weight gain
Interventions that are Weight-neutral or Associated with Weight Loss		
Lifestyle Modification	1-2	*Initial weight loss;* 1-2 kg gain over time
Metformin	1-2	0.5-4.5 kg weight loss
SGLT2 Inhibitors	-0.54% (-0.67- -0.40)	1.81 kg (-2.04 to -1.57) weight loss
alpha-Glucosidase Inhibitors	0.5-0.8	0.5-2 kg weight loss
GLP-1 Receptor Agonist	0.8-1.5	1-3 kg weight loss *(dose dependent)*
DPP-4 Inhibitor	0.5-1.2	± < 1 kg
Amylin Analog	0.5-1	0.4-1.4 kg weight loss with insulin or oral hypoglycemic agents

Anti-hypertensives

Weight Gain	Weight Neutral / Less Weight Gain	Weight Loss
α-adrenergic blockers (doxazosin, prazosin, terazosin) **β-adrenergic blockers** (atenolol, metoprolol, nadolol, propranolol)	**ACE inhibitors** (captopril, enalapril, lisinopril, ramipril) **ARBs** (candesartan, Irbesartan, losartan, olmesartan, telmisartan, valsartan) **β-adrenergic blockers** (carvedilol, nebivolol) **Calcium channel blockers** (amlodipine, diltiazem, felodipine, isradipine, nicardipine, nifedipine, nisoldipine, verapamil) **Thiazides** (chlorthalidone, hydrochlorothiazide)	None

Anti-depressants and class 1 mood stabilizers*/**

Weight Gain	Weight Neutral / Less Weight Gain	Weight Loss
Mirtazapine **SSRIs** **(paroxetine)** **Tricyclic antidepressants TCAs** **(amitriptyline, doxepin, imipramine)** **Lithium*** **MAOIs** **(isocarboxazid, phenelzine, tranylcypromine)**	**MAOIs** (transdermal selegiline) **SSRIs** (fluoxetine, sertraline, citalopram, escitalopram, vortioxetine, fluvoxamine); **SSRIs +** (vilazodone) ref 37 p.115 **SNRIs** (desvenlafaxine, duloxetine, venlafaxine, levomilnacipran) **TCAs** (nortriptyline) **Trazadone**	**Bupropion** **Fluoxetine** (acutely)?

***Updated and Modified, June 2017. BOLDED in **RED** Medications = significant weight gain association.*

Antihistamines

Weight Gain	Weight Neutral / Less Weight Gain	Weight Loss
1st generation antihistamines (diphenhydramine, doxepin)	**2nd and 3rd generation antihistamines** (cetirizine, desloratadine, fexofenadine, levocetirizine, loratadine) **Alternatives: decongestants** (phenylephrine, pseudoephedrine)	None

Antihistamines

- Acrivastine
- Cetirizine
- Levocetirizine
- Fexofenadine
- Loratadine
- Desloratadine

Adapted from: Saunders KH, Igel LI, Shukla AP, Aronne LJ. *J Fam Pract*. 2016 Nov;65(11):780-788.
Apovian CM, Aronne L, Powell AG. Clinical management of obesity. West Islip (NY): Professional Communications, Inc; 2015. p. 148-50.

A Common Predicament:

Options for patients unable to receive an GLP-1 agonist for weight loss

The Tier I and Tier II medications in this protocol have been FDA approved for weight loss. Due to the frequent lack of access of GLP-1 agonists (and as anticipated for newer medications coming to market), we are including frequently used off-label formulations. These medications would not be considered Tier I medications for the purpose of this protocol. These medications include but are not limited to: Metformin, Phentermine, Topiramate as monotherapy and Bupropion as monotherapy.

Elective Surgery as recommended by the American Society of Anesthesiologists

For patients on daily dosing, consider holding GLP-1 agonists on the day of the procedure/surgery. For patients on weekly dosing consider holding GLP-1 agonists a week prior to the procedure/surgery. This suggestion is irrespective of the indication, dose or procedure/surgery.

If GLP-1 agonists prescribed for diabetes management are held for longer than the dosing schedule, consider consulting [the prescribing physician] or an endocrinologist for bridging protocol anti-diabetic therapy to avoid hyperglycemia.

If GI symptoms such as severe nausea/vomiting/retching, abdominal bloating or abdominal pain are present, consider delaying elective procedure and discuss the concerns of potential risk of regurgitation and pulmonary aspiration of gastric contents with the proceduralist/surgeon and the patient.

If the pt has no GI symptoms and the GLP-1 agonist has been held as advised, proceed as usual.

If the patient has no GI symptoms but the GLP-1 agonists were not held as advised proceed with “full stomach” precautions or consider evaluating gastric volume by ultrasound. If the stomach is empty, proceed as usual. If the stomach is full or if the gastric ultrasound is inconclusive or not possible, consider delay.

There is no evidence to suggest the optimal duration of fasting for patients on GLP-1 agonists. Until we have adequate evidence, follow current ASA fasting guidelines.

Supporting Resources

The Endocrine Society recommends, “that diet, exercise, and behavioral modification should be included in all obesity management approaches.” (Pharmacological Management of Obesity Guideline Resources | Endocrine Society)

Baptist Health Resources for Lifestyle Intervention:

- Behavioral Health
- Healthy For Life, Baptist Team Member Wellness Program
- Baptist Physician Partners
- Nutrition Services and Outpatient Diabetes Program
- Baptist Center for Bariatric and Reflux Surgery (baptistbariatrics.com, 904-202-SLIM).

Obesity in Adults: Drug Therapy. Up-to-Date.com. Perreault, Leigh, MD. July 2023. Last updated August 08, 2023.

Of note, **Bupropion-Naltrexone (Contrave)** The FDA is requiring post-marketing studies to evaluate CV outcomes and any impact on cardiac conduction related conditions.

Disclaimer: These guidelines are intended to provide information for decision-making. They do not dictate a specific form or regimen of treatment. These guidelines are intended for the use of practitioners and the healthcare team who desire information about the management of the conditions addressed by the topics covered. These guidelines should not be deemed inclusive of all proper methods of care nor exclusive of methods of care reasonably directed toward obtaining the same results. The ultimate judgment regarding the propriety of any specific therapy must be made by the physician or advanced practice provider in light of all the circumstances presented by the individual patient.