Thames Valley
Family Health Team

# THE DOSE- Winter 2021

**In this issue:**



**Helping your patients with their New Years Resolutions**


During the pandemic people wanting to quit smoking had declined by 27% compared to previous years[1]. Based on Ontario data, those who tried to quit were 23% less successful.[2] As the calendar year changes, hopefully there will be an increased interest in smoking cessation. We have compiled a list of frequently asked questions from patients and practitioners.

**Can I use more than 1 Nicotine patch at a time?**

Absolutely! For people who smoke greater than 30 cigarettes per day it would be recommended to start with a Step 1 (21mg) + Step 3 (7mg) patch.[1,2] For patients who continue to smoke while using the NRT patch, additional patches can be used as they may need additional nicotine to help manage cravings. Consider the following:

| If still smoking: | **Additional patch suggested on top of previous dose** |
|---|---|
| 10+ cigarettes per day | 21 mg patch (Step 1) |
| 6-9 cigarettes per day | 14mg patch (Step 2) |
| 1-5 cigarettes per day | 7mg patch (Step 3) |

Adapted from the Nicotine Dependence Clinic Pharmacotherapy algorithm[1]

**The directions on the nicotine replacement box state "do not to use" with other nicotine replacement therapies. Is it safe to use combination therapy?**

Yes! Combination therapy of nicotine replacement patches with short acting formulations (gum, lozenge, inhaler, mist) to help manage cravings is considered standard of care.[1] Combination therapy has been shown to be more effective compared to the patch alone.[2,3]

**Can I use the patch longer than what's recommended on the box?**

Yes! The duration of 10 weeks may be too short for some smokers. Extending NRT therapy up to 24 weeks increases the odds of being smoke free by 1.7 times. However, extending past 24 weeks has not been shown to be of benefit. [1]

**Can varenicline be used in patients with a history of mental health conditions?**

Yes! Varenicline no longer has a black box warning for psychiatric conditions[1]. In the EAGLES study[2], patients with stable mild to moderate mental health disorders were not at increased risk of neuropsychiatric events when treated with varenicline compared to placebo or NRT. "Stable mental health" was defined as no exacerbations of mental health in last 6 months, stable on current treatment for >3 months, not at high risk for self harm and no substance abuse in the previous 12 months. It is advisable to have regular follow up regardless, as this has been shown to improve cessation rates and allows for monitoring of mental health.

**Is there a benefit to adding nicotine replacement to varenicline for smokers who struggle to quit smoking?**

Maybe! The evidence is conflicting surrounding the benefit of combination therapy of varenicline and NRT. In motivated patients who are struggling to quit, varenicline could be added to NRT. The benefits range from no significant benefit to an absolute benefit of 13.3% (44.6 vs 31.3%) for being smoke free at 6 months. The combination therapy was well tolerated but continue to monitor for nausea, insomnia, and vivid dreams.

**Does quitting smoking affect medications?**

Yes! The burning of polycyclic aromatic hydrocarbons (**not nicotine**) from cigarette smoking can induce CYP 1A2 enzymes, thereby reducing some drug levels. The minimum number of cigarettes needed for this induction is not clear due to CYP 1A2 polymorphisms.[1] The effect may be seen with as little as 7 cigarettes per day[2]. The change in CYP1A2 levels may take up to a week to return to baseline levels. [4]

Drug interactions to be aware of include **caffeine** (should be reduced by 50%), **warfarin** (increased frequency of INR monitoring – may need a 10% dose reduction after quitting), **clozapine** (contact original prescriber before smoking cessation attempt), **olanzapine**, **methadone**, and **theophylline**.

For more information about smoking cessation and drug interactions:

https://www.sps.nhs.uk/wp-content/uploads/2020/03/UKMi_QA_Interactions-with-tobacco_update_Jul-2020.pdf

Drug Interactions With Tobacco Smoke (aafp.org)

Resources to help your patient quit smoking

**Leave the Pack Behind**: virtual class offered by TVFHT 2 times per month.
https://thamesvalleyfht.ca/programregistration/

https://www.nicotinedependenceclinic.com/en/stop/stop-on-the-net

- Offers 8 weeks of NRT products that can be mailed to the patient
- They will not be eligible for the STOP study for 1 year

**Middlesex-London Health Unit The Quit Clinic** P: 519-663-5317 ext HELP

**quitSTART APP**: National Cancer Institute at the National Institutes of Health sponsored. Available in the Google Play and the Apple Store. It offers tips, distraction techniques to help with cravings and helps to monitor progress

https://www.smokershelpline.ca/ Offers confidential support by phone or text messages

# In case your patient asks....Is Wegovy (semaglutide) available in Canada for weight loss?

Wegovy has been approved by Health Canada

- Estimated availability date is Fall 2022
- Cost has not been set in Canada. In the USA, the cost is similar to Saxenda (liraglutide)

Indicated in combination with reduced caloric intake and increased physical activity for weight management:

- BMI of 30 kg/$m^2$ or greater (obesity)
- 27 kg/$m^2$ or greater (overweight) in the presence of at least one weight-related comorbidity such as:
  - Hypertension
  - type 2 diabetes mellitus
  - dyslipidemia
  - obstructive sleep apnea

**What is the difference between semaglutide 1mg sq q weekly vs 2.4mg q weekly?**

The STEP 2 trial looked at adults with obesity and type 2 diabetes over 68 weeks. [1]

| | Semaglutide 1mg (N=403) | Semaglutide 2.4mg (N=404) |
|---|---|---|
| Avg Change in body weight at week 68 | -6.99% | -9.64% |
| ≥ 5% of body weight reduction | 57.1% | 68.8% |
| ≥ 10% of body weight reduction | 28.7% | 45.6% |
| ≥ 15% of body weight reduction | 13.7% | 25.8% |
| Average weight loss | -6.9kg | -9.7kg |
| Change in A1C | -1.5% | -1.6% |

**When should a patient see benefit for weight loss?**

Reassess weight loss after 3 months at a therapeutic dose. If the patient does not achieve at least a >5% weight loss, therapy should be reassessed with the patient to consider discontinuing therapy.

**Does the weight loss maintain after the therapy has stopped?**

Unfortunately, once the medication is stopped, many patients will regain the weight.[5,6] On average, 1 year after stopping the weight loss medication ~50% of the previous weight loss is regained.[6,7]

**In case you are asked about herbal supplements for weight loss:**

**Green tea extract:** The benefit in trials was small. In a meta-analysis, the mean weight loss was 0.04kg over ~ 12 weeks[8]
**Garcinia cambogia:** In a meta-analysis the mean weight loss was 0.88kg. The trials included were of poor methodology[9]

**How to pick an agent for weight loss:**

Click here for the Obesity Canada algorithm to help select a weight loss medication

Click here for the considerations by disease state for each weight loss medication. Please note Lorcaserin and Phentermine/topiramate are not available in Canada.

Click here for a chart comparing the approve medication options in Canada

For medications that cause weight gain: Consider switching to an alternative medication or deprescribing if possible

**What are common medications that can cause weight gain?**

- Anti-depressants: amitriptyline, mirtazapine and paroxetine
- Anti-psychotics: clozapine, olanzapine, quetiapine
- Diabetes: insulin, gliclazide
- Beta- blockers
- Carbamazepine, valproic acid

*Resources for obesity management and weight loss*

*Pharmacy Referral: Consider a medication review to look for alternatives to weight gaining medications*

*Best Weight: A virtual group run by TVFHT dietitians offers practical strategies related to nutrition, activity level and other health behaviors that may influence weight and their risk for other chronic diseases. Registration can be found here*

*AACE Practice Toolkit for nutrition and weight management*

## Academic Detailing: Falls prevention

**Did you know that 20-30% of your patients over the age of 65 fall each year?**

Falls are the leading cause of injury-related morbidity and mortality among people aged 65 and older living in the community. Book a one-on-one detailing session for quick screening tips, risk factors for falls and resources for your patient

TVFHT offers a virtual program Steady and strong that is open to the public. Register for a Program – Thames Valley FHT

## GeriMedRisk: A Geriatric Consult Service

### What do they offer?

- Rapid access to an interdisciplinary team of geriatric specialists
- Clinical specialties: Geriatric Psychiatry, Clinical Pharmacology, Geriatric Pharmacy, Geriatric Medicine
- **Virtual clinician consult service ONLY** (physicians do not contact patients, and pharmacists contact patients only to collect medication histories)
- Turn-around time of 5 days once they have all required information from primary care
- GeriMedRisk will provide a harmonized recommendation summary that all specialists agree with

### How to refer:

- eConsult: Ontario Telemedicine Network or Champlain BASE™ eConsult: select "GeriMedRisk"
- Fax: (519) 279-2959
    - Complete this fillable form: https://www.gerimedrisk.com/userContent/documents/GeriMedRisk-Referral-Form.pdf
- Phone: 1 (855) 261-0508 – Monday to Friday, 9am-5pm
    - Unsure if your patient is a good candidate? They are happy to talk it over
- Any practitioner can refer, but referrals must state that a physician or nurse practitioner is aware of and in agreement with the referral (NO billing number required)
- GeriMedRisk clinicians have access to patient information on ClinicalConnect, but they appreciate any information you can provide

### Why GeriMedRisk instead of GAAT or other specialists?

- GeriMedRisk offers troubleshooting for complex physical and mental health problems while waiting for in-person specialist care
- Rapid turnaround to help provide guidance in urgent complex cases
- Ask a specific question (Is X drug causing Y presentation?), for advice about your preliminary plan, or a general consult

### Other resources:

- Monthly Geriatric Clinical Pharmacology Rounds
    - Topics such as cholinesterase inhibitors, digoxin use in older adults, and clinical pearls in osteoporosis
    - Not industry sponsored
- Drug Information Resource
    - In-depth drug summaries
    - Infographics: REALLY excellent one-pagers about drugs with a geriatrics focus
    - Free but restricted to healthcare professionals: https://www.gerimedrisk.com/consult/summaries/

## *Did you know more than 50% of patients do not adhere to their medications?*

Research has shown that medication adherence is one of the major challenges healthcare systems faces, including Canada.[1-3]

Medication non-adherence can:

- worsen the illness
- increase costs to healthcare
- reduce patients' own quality of life
- increase caregiver burden.[4-7]

There are numerous strategies to improve adherence including:

- alarms
- reminders
- pillboxes
- pharmacy-prepared blister packages
- mobile applications
- electronic pillboxes
- automated medication dispensers[8-11]

Some of these products can record real-time medication intake of a patient known as "*Smart products*". These features include:

- sending reminders to patients or caregivers when the dose is due
- locking ability to prevent double dosing
- allowing healthcare providers to access medication intake information remotely via a web-based or cloud-based portal.

However, keep in mind "not every product is suitable for all patients". Healthcare providers should match the right product with the right patient for its full effectiveness. You can familiarize yourself with their features to find the right product for the right patient using the link below:

Sadaf Faisal, TVFHT pharmacist, co-authored a review on these products available here

https://doi.org/10.1177%2F17151635211034198

**Approximate cost of compliance aids**

- Pharmacy prepared compliance packaging: $0-6.11 **per prescription** every 1-2 months
  - Low-income seniors ($22,000/individual or $37, 100 per couple) can apply to have their co-pay reduced The application can be found here

**Clinical tips to improve adherence:**

**Consider a medication review with a pharmacist to evaluate:**

- Reducing the number of dosing times per day
- Reducing pill burden by using combination tablets and the simplest strength for dosing
- Reassessing therapies including vitamins and herbals
- Include the indication in the directions of prescriptions

Collaboration in Practice: Pharmacy Spotlight

**Lithium toxicity**

**Referral**: Medication adjustment for elevated A1C

**Best Possible Medication History (sources of information**: pharmacy list, EMR, patient interview and patient vials)

**Medication organization:** self organized weekly planner

**Compliance:** reports good compliance- rarely misses a pill- congruent with pharmacy refill history

**Allergies/Intolerances**: lamotrigine- rash, divalproex acid- intolerant, no documentation of reaction

| Current medications | Indication | Current Blood work |
|---|---|---|
| Metformin 1000mg (2x500mg) bid | Diabetes | Hgb 142 g/dL |
| Perindopril erbumine 4mg daily | CKD | A1C: 7.2% |
| Atorvastatin 20mg daily | Dyslipidemia | ACR: 6.4 |
| Levothyroxine 0.075mg daily | Hypothyroidism | Scr 84umol/L (stable x 5 years) |
| Lithium 900mg qhs | Bipolar | Na+ 140 mmol/L |
| Tamsulosin CR 0.4mg qhs | BPH | K+ 4.7 mmol/L |
| Vitamin D 1000IU daily | | |
| No eye drops, nasal sprays, topical creams | | |

**Patient concerns:** slight tremor preventing enjoyment of hobbies

**Foot care**: seen in the community every 4 weeks, no concerns, moisturizes daily, Ipswich 6/6
**Recent eye exam**: no retinopathy, prescription has been stable
**Diet**: working with FHT RD x6 months. Has reduced intake of juice and carbohydrates. Balanced meals, caffeine intake has been stable 1 cup-homemade, water intake 6 cups per day- reports spilling due to tremor
**Activity level:** walks twice daily with dog for 20mins, does work out DVD 2 x per week
**SMBG testing**: not testing due to needle phobia, low risk of hypoglycemia with current medications
**Clinic blood pressure** 126/72 mmHg 65bpm

**Clinical assessment**
D: A1C 7.2%, improved from 7.8% with dietary changes
A: uncontrolled blood sugar despite lifestyle changes
P: Agreeable to start Linagliptin 5mg daily (reviewed Contraindications, benefits, and side effects)
Linagliptin was selected as not interested in injectables due to needle phobic, BPH with increased frequency followed by urology- not interested in SGLT-2 inhibitor

D: tremor x2 years, difficulty with painting, present in hands at rest, only recent medication change was addition of perindopril ~ 4 years ago, no GI upset, no recent lithium levels- psychiatrist retired ~ 1 year ago, stable on lithium for ~ 10 years
A: ? ADR from lithium, ? drug interaction with lithium due to the addition of perindopril
P: suggestion to family physician to repeat lithium level at 12hrs post dose

**Education provided to patient:**
Sick day management: SADMAN handout given

**Follow up:** 3 week follow up to check tolerability of linagliptin, task sent with blood work suggestion

**Risk Factors for Lithium toxicity include:**[1]

- Gastrointestinal illness/volume depletion
- Thiazide diuretics (can increase the levels of lithium by 10-400%)
- ACEI/ARBs (7-fold increase in hospitalization for lithium toxicity with the combination)
- NSAIDs
- Salt restriction
- decrease in renal function
- Advanced age

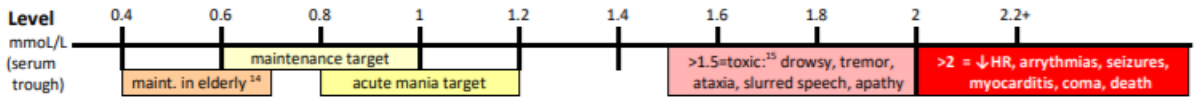
**Why should the lithium level be taken 10-14 hrs post dose?**

Lithium levels can be falsely elevated if drawn too soon because of the long distribution phase. [1,3,5]

Results of blood work
Lithium level: 1.38 mmol/L (~14hr post dose)

Discussion with family physician: target level in bipolar maintenance 0.4-0.8mmol/L in most geriatric patients. Average dose required in elderly ~450mg daily. Suggestion to repeat level in 5-7 days with dose changes. Family physician reduce lithium to 600mg qhs and level was repeated 1 week later

**What are the usual Lithium targets?**



Reference: RxFiles: BiPolar [2,3]

Elderly have a lower target range for Lithium. The blood brain barrier in the elderly population becomes more penetrable. This allows Lithium to penetrate into the cerebrospinal fluid easier. [4]

**Results of blood work:** 1.15mmol/L (13 hrs post dose). Pharmacist phone call with patient: no change in mood, wife and family helping to monitor, tremor still present but improved.

Lithium dose was reduce to 300mg qhs and blood work set to be repeated in 1 week.

Results of blood work: 0.73mmol/L (11hrs post dose)

**Pharmacist check in**: Tremor no longer present, mood has been stable- wife continues to monitor mood. Tolerating linagliptin with no side effects. Discussion about replacing metformin and linagliptin with combination tablet to reduce costs and pill burden. Patient agreeable to change. Lab work organized for SCr, lytes, lithium level, and A1C for 3 month follow up.

Suggested routine Monitoring for Lithium

**Baseline:** Cr (eGFR), BUN, TSH, total calcium, albumin, urinalysis, ECG, weight, height, blood pressure
**Start of therapy:** Check trough lithium level every 7 days until stable
**Ongoing:** lithium level, electrolytes, Cr (eGFR), TSH, BUN q3-6 months or as indicated. $Ca^{+2}$ q6-12 months[2,3,5]

**Common side effects**
GI disturbances (e.g. nausea, diarrhea), Polyuria, Polydipsia, Metallic taste, Weight gain and Fine tremor[5]

Fine tremor can occur within the therapeutic range and can be managed with dose reduction (if feasible) or a beta blocker such as propranolol

**COVID-19 booster eligibility in Ontario**

Starting on Monday Dec 20, all individuals >18 years old are eligible for a 3rd dose 3 months after their 2nd dose.

**Pfizer-BioNTech COVID-19 vaccine and children 5- 11 years old**

- Recommended series from NACI is 2 doses. The second dose is recommended after at least 8 weeks after the first dose
- "COVID-19 vaccines for children 5-11 years old **should not routinely be given concomitantly** (i.e., same day) with other vaccines (live or non-live)". Other vaccines should be spaced 2 weeks before or 2 weeks after. This is precautionary recommendation
- "Children who receive the 10 mcg Pfizer-BioNTech COVID-19 vaccine for their first dose and who have turned 12 years of age by the time the second dose is due may receive the 30 mcg Pfizer-BioNTech COVID-19 vaccine"- NACI recommendation

Sick Kids is offering additional support for parents and children who have questions and concerns around COVID-19 vaccination. https://www.sickkids.ca/en/care-services/support-services/covid-19-vaccine-consult/

**Helping children have a better vaccination experience:**

Taking your child to get a vaccine can be a very challenging experience.

To reduce the anxiety often related to receiving a shot here are some tips:

1. Describe step by step what is going to happen
2. Rather than call it a shot or needle- call it a vaccine or immunization. A vaccine is a shield that protects you from illness. Let them know they may feel a pinch.
3. Listen to their concerns and empathize
4. Encourage them to write their questions down for the Pharmacist, Doctor or nurse
5. Have them bring a stuffed animal or favorite blanket to the appointment
6. Offer to hold their hand or have you cuddle them. Watch a video, listen to music or have them tell you a story.
7. Stay positive and give them a **reward**


https://immunize.ca/card

**Celebrating antimicrobial stewardship month: Resources to help reduce the use of antibiotics in primary care**

Click here for a Viral prescription pad:

Click here for Antibiotic Shared decision-making infographics to help with discussing antibiotics with patients

**Office posters for viral infections:**

Bronchitis
Sinusitis
Pharyngitis
Harms of antibiotics

# Ontario Drug Benefit update

**NOTE: Starting Jan 1, 2022 ODB is no longer accepting faxes for Exceptional Access Program requests. EAPs will only be accepted through the SADIE portal**

SADIE (Special Authorization Digital Information Exchange) SADIE is an online portal for submitting Ontario Drug Benefit Exceptional Access Program requests. The benefits of using SADIE over the standard paper or PDF forms are:

- Can assign designates (i.e. clinic nurses or pharmacists) to complete or help complete the EAP request
- Can search the reimbursement criteria for the requested drug
- Faster and a higher rate of approvals – 75% reduction in rejections due to incomplete information
- Easy to use – SADIE only asks for required information with dynamic smart forms

**Sign up for SADIE here:** http://www.health.gov.on.ca/en/pro/programs/sadie/

**Now Covered:**

**Nexplanon** implant: For addition information on Nexplanon please click here

**Estagyn vaginal cream** 0.1% is temporary covered by ODB during the Premarin vaginal cream back order

**Libre 2** is now covered under ODB

- Eligibility for Type 1 and Type 2 diabetics who are on insulin

What are the differences between Libre and Libre 2?

- Libre 2 can be used for diabetes 4 years and older whereas Libre was 18 and older
- Libre-2 can be set up to offer real time alarms for Low Glucose Alarm, High Glucose Alarm and Signal Loss Alarm

**NOTE:** Libre-2 requires a different reader or mobile app (Libre-2 app) to connect compared to the original Libre.

**New Indications:**

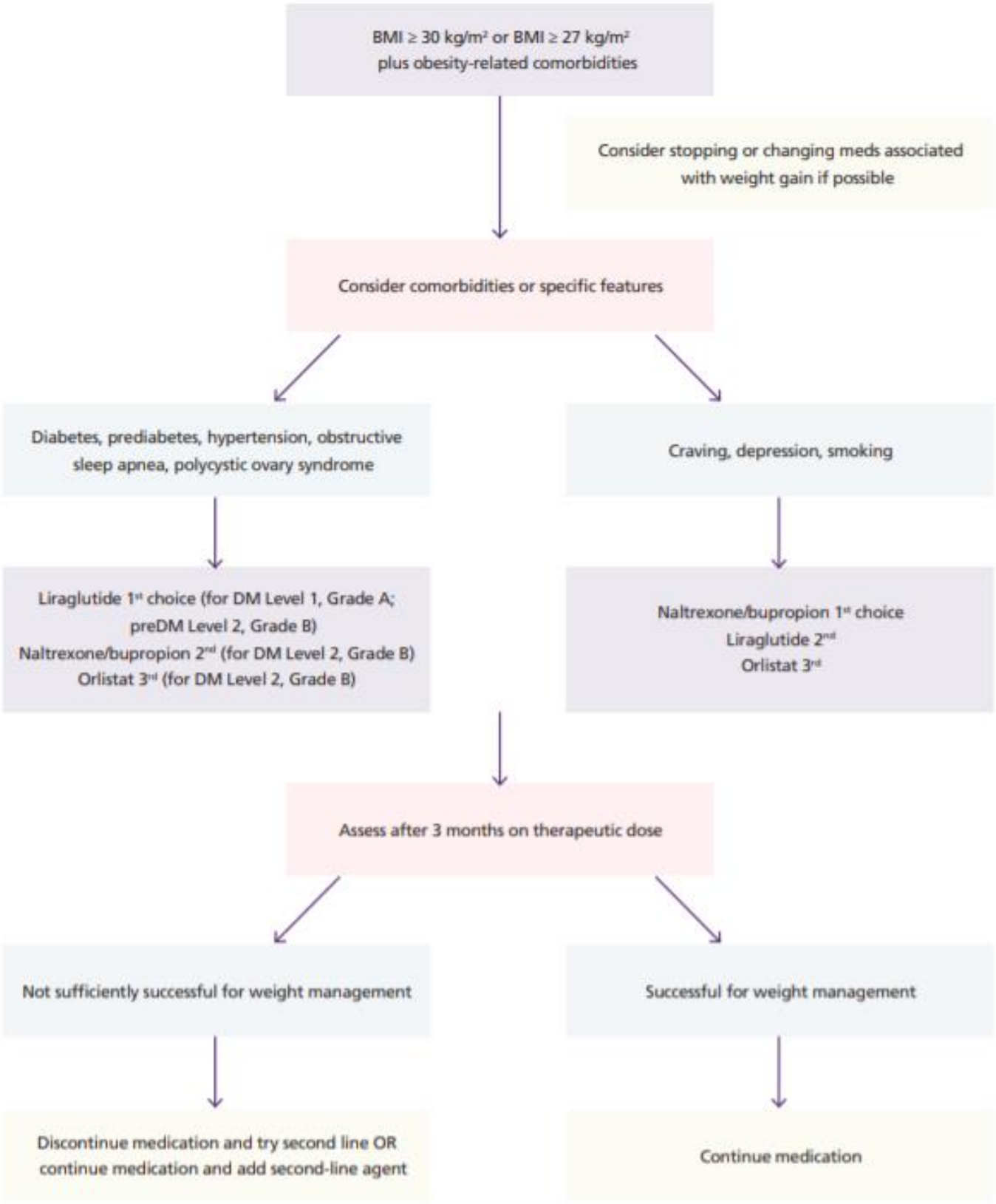
- **Shingrix:** Adults aged 18 years and older who are or will be at increased risk of herpes zoster due to immunodeficiency or immunosuppression caused by known disease or therapy

Health Canada Approved options for weight loss:

| | Orlistat | Bupropion/naltrexone | Liraglutide | Semaglutide |
|---|---|---|---|---|
| Dose Titration | 120mg tid (note some will start once per day and increase as tolerated) | 1 tablet daily x7 days<br>1 tablet bid x7 days<br>2 tablets AM and 1 QPM x 7 days then<br>2 tablets bid | 0.6mg sq daily x 7 days<br>1.2 mg sq daily x 7 days<br>1.8mg sq daily x 7 days<br>2.4mg sq daily x 7 days<br>3mg sq daily | 0.25mg sq q weekly x4<br>0.5mg sq q weekly x 4<br>1mg sq weekly x 4<br>1.7mg sq weekly x 4<br>2.4mg sq weekly |
| Target dose | 120mg po tid | 180/16mg bid | 3mg sq qweekly | 2.4mg sq qweekly |
| % weight loss at 1 year minus placebo | -2.9% | -4.8% | -5.4% | -10 to -12.5% |
| Effect on weight over the long term | -2.8kg at 4 years | Not studied | -4.2% at 3 years | Not studied |
| % of pt achieving ≥5% minus placebo | 21%<br>(54-33%) | 32%<br>(48-16%) | 36.1%<br>(63.2-27.1%) | 39%[2]<br>(86.6% -47.6%) |
| % of pts achieving ≥10% minus placebo | 12%<br>(26-14%) | 18%<br>(25-7%) | 22.5%<br>(33.1-10.6%) | 48%[2]<br>(75.3- 27) |
| Effect on BP (placebo subtracted) | -1.9 mmHg SBP<br>-1.5mmHg DBP | +1.8 mmHg SBP<br>+0.9mmHg DBP | -2.8mmHg SBP<br>-0.9mmHg DBP | -4mmHg SBP[2]<br>-2.2 mmHg DBP |
| Effect on heart rate | No change | +1.1 BPM | +2.4BPM | +1-4 bpm |
| Contraindications | Cholestasis<br>Chronic Malsorption Syndrome<br>Pregnancy | Uncontrolled HTN<br>Opioid use<br>Hx or risk factors for seizures<br>Abrupt discontinuation of alcohol<br>MAOI<br>Severe Hepatic/renal impairment<br>Pregnancy | Past Hx of pancreatitis<br>Family Hx Medullary Thyroid Cancer<br>MEN-2 syndrome<br>Pregnancy<br><br>**can worsen gastroparesis | |
| Common side effects | Loose oily stools<br>Flatus | Nausea<br>Constipation<br>Headache<br>Dry mouth<br>Dizziness<br>Diarrhea | Nausea<br>Constipation<br>Diarrhea<br>vomiting | |
| Rare Side effects | Liver failure<br>Nephrolithiasis<br>AKI | Seizure<br>Worsening depression | Pancreatitis<br>Cholelithiasis | |
| Drug interactions | Fat soluble vitamins<br>Levothyroxine<br>Cyclosporine<br>Oral anti-coagulants and anticonvulsants | Medications metabolized by 2D6<br><br>Naltrexone reverses opioids<br><br>MAOI | Digoxin<br>Drugs that can prolong the PR interval<br><br>Insulin | |
| Cost per month | $148 | $280 | $400 | ??? |

Adapted from Obesity Canada Practice Guidelines[5]

Figure 1. Algorithm: Choice of Obesity Pharmacotherapy

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**Extended duration**

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**NRT +varenicline**

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