





Disclaimer

- I cannot answer certain specific questions, as I will not have sufficient background information and medication history to make a proper recommendation.
- I will address some commonly asked questions based on my training and personal experience.
- I will <u>always</u> emphasize and stress the importance of communicating with your healthcare team about specific questions regarding your health and well-being.









Abbreviations

- Parkinson's disease (PD)
- Levodopa/carbidopa (levocarb)
 - Brand name: Sinemet
- Immediate-release (IR)
- Controlled-release (CR)
- Over-the-counter (OTC)









Additional Questions from PD Meds Q&A (October 30th, 2020)









Q: Should I take more or less levocarb before dental appointment requiring freezing?

Continue regular dosing schedule









Q: Can levocarb help with micrographia?

May provide a slight improvement









Q: Medications and hallucinations

- Hallucinations are a possible side effect of medications used to treat PD:
 - Levodopa, dopamine agonists, MAO-B inhibitors, COMT inhibitors (entacapone), anticholinergics, NMDA receptor antagonists (amantadine)
- Hallucinations can also occur in later stages of PD and not be due to dopaminergic medications
- Sudden onset of hallucinations? Possible sign of infection, dehydration, etc.









Q: Supplements that might counteract levodopa?

- Space from iron
 - Affects the absorption of levodopa

Talk to Your Pharmacist









Q: OTC medications that should not be taken with levocarb?

- Things to consider:
 - What other medical conditions do you have?
 - What other medications are you taking?
 - May be unable to perform a drug interaction check with natural health products
- MAO-B Inhibitors (e.g. selegiline, rasagiline, safinamide)
 - Drug interactions with OTC and prescription medications











Q: Recommended spacing for PD medications with OTC and prescription medications?

- It depends on the medications
- For the following, space from other medications by 2 hours
 - Polyethylene glycol 3350 (PEG 3350)
 - e.g. RestoraLAX, Lax-A-Day
 - Psyllium
 - e.g. Metamucil

Talk to Your Pharmacist









Q: I am taking RestoraLAX for my constipation, and I was instructed to space it 2 hours from my medications, but I take a levocarb tablet every 3 hours. What do I do?

- Medicinal compound: polyethylene glycol 3350 (PEG 3350)
- Just space it the best you can
 - Take it in-between the 2 doses, leaving approximately 1 and ½ hours spacing on either side









Q: Is there a maximum daily dose of Sinemet?

- Take as many doses as you need to manage PD symptoms*
 - Tailored to your needs









Q: On a very low dose of Sinemet. When I try to increase it, I get a lot of fatigue

- What dose are you on? What have you tried in regards to titrating it up?
 Are you increasing slowly?
- Investigate other issues that may be contributing to fatigue
 - How is your sleep? Waking up in the middle of the night?
- Other possible strategies









Navigating Side Effects

- In most situations, side effects will go away on their own within a couple weeks of being initiated on a new medication
- Experiencing nausea? Take the medication with a small amount of food
- Experiencing drowsiness? Has the medication been increased by small increments over a short period of time?
 - E.g. Take ½ tablet three times a day for 7 days, then increase to 1 tablet three times a day









Q: Advised to take CBD oil 2 hours prior to bedtime to help with sleep. Can I take levocarb at the same time?

- Side effects of CBD: drowsiness, fatigue, diarrhea
- CBD may lower blood pressure?
 - Non-motor symptom of PD: low blood pressure
 - Side effect of levodopa: orthostatic hypotension
- Taking with other medications that cause drowsiness?









Cannabis and Parkinson's Disease

- Two main cannabinoids found in cannabis
 - Cannabidiol (CBD)
 - Tetrahydrocannabinol (THC)
- May be used in pain, sleep, anxiety?
- Things to think about:
 - PD symptoms and side effects of PD medications: balance, dizziness, drowsiness, low blood pressure, confusion, hallucinations
 - Need for more high quality evidence/studies to help determine efficacy and safety, mixed results from studies, small studies, no control or placebo in studies, standardized formulation?, different strains?, ratio of CBD to THC what ratio for those with PD?



GP, neurologist opinion?







Cannabis Medical Clinics

- Medicinal Cannabis Resource Center
 - http://mcrci.com/
 - Vancouver based patients
- Greenleaf Medical Clinic
 - https://greenleafmc.ca/









Q: Night sweats associated with medication? (takes levodopa at 9:00 pm)

- Wearing-off of levodopa
 - Transitioning from "ON" state to "OFF" state

- What time are you going to bed? Taking a dose in the middle of the night? How many times are you waking up in the middle of the night?
- Taking IR or CR? Taking both?









Q: How medications can affect sleep

- Some drugs can be stimulating, whereas others can be sedating and cause drowsiness
 - Stimulating (side effect: insomnia)
- Examples of drugs that might cause insomnia if taken too late in the day:
 - PD medications: MAO-B inhibitors (e.g. selegiline, rasagiline, safinamide), amantadine
 - Non-PD medications: venlafaxine, bupropion









Q: Vitamin D (1200 IU/day for 12 months) prevented the deterioration of PD?

- Original study:
 - Suzuki M, Yoshioka M, Hashimoto M, et al. Randomized, double-blind, placebo-controlled trial of vitamin D supplementation in Parkinson disease. Am J Clin Nutr. 2013;97:1004-13.









Q: Taking both an IR and CR tablet together at the same time?

- Some individuals find being on both levocarb formulations throughout the day helpful in managing their PD
- Everyone is different, find what works for you!









Q: What medications help treat tremor?

- Some may find that levodopa does not help treat their tremor
- Anticholinergics (e.g. trihexyphenidyl, benztropine)
 - Side effects: drowsiness, dry mouth, blurred vision, constipation, confusion, memory impairment









Q: When should I start taking medication for Parkinson's disease?

- You should start medication if PD symptoms are affecting your quality of life and/or ability to perform your daily activities
- Stiffness or slowness preventing you from exercising?
- Impacting quality of life?
 - Ability to spend time with family and friends, ability to travel, ability to work, engage in hobbies









Scenario

- Individual decides not to start levodopa because it may not help with tremor
 - At this time they are not experiencing any other PD symptoms (e.g. stiffness, bradykinesia, balance problems) and are continuing to stay active
- Six months later, rigidity and bradykinesia become apparent and affects their ability to perform daily tasks. This individual starts medication therapy for their PD.

Q: Will this individual not experience as much benefit from medication due to delaying its start?









Delay Starting Medication?

 "My Parkinson's is preventing me from _____, but I want to save the effects of levodopa for later on when I really need it..."

- Progression of PD and loss of dopaminergic neurons over time
- Possible risks and drawbacks in delaying treatment?
 - Delaying medication: experience unsteadiness, falls









Q: PD medications stop working after a few years?

- PD medications <u>do not</u> stop working or become less effective; you do not build a tolerance to the medication
- Rather, we may just need to adjust them over time
 - It is the progression of PD over time that affects how we respond to levodopa

Q: Will this individual not experience as much benefit from medication due to delaying its start?









Q: What do I do if I forget to take my dose?

- If you are <u>not</u> too close to your next dose, take the dose that you forgot as soon as you remember, and continue with regular schedule
 - OR shift the remaining doses of the day accordingly (depends on your situation/circumstance)
- If you are too close to your next scheduled dose, skip the missed dose and take your next scheduled dose as planned
 - Do not take both doses
- Ask your pharmacist









Q: What is the difference between generic and brand name?

- A generic drug is a copy of a brand name drug produced by another manufacturer
- Generic and brand name drugs have the same medicinal ingredient(s)
 - May have different non-medicinal ingredients
- Generic drug manufacturers have to prove to Health Canada that their drug is bioequivalent to the brand name









Q: Between levocarb CR and IR, is one better than the other? I'm on levocarb CR.

- CR tablets are meant to be taken whole and the onset of action (i.e. how long it takes to start working) takes a little bit longer
- Some people do well on the CR formulation in regards to their symptom management, whereas others will not
 - Unpredictable and delayed onset of action
- IR tablets can be split, dosing can be more easily adjusted, and the onset of action is often more predictable









Q: I have been taking my levocarb with meals as instructed by my doctor. Should I not?

- These instructions were likely given to help address the side effect of nausea
- Tolerance to the side effects of levodopa should develop after a couple weeks of starting the medication
- Taking levodopa with food may reduce absorption
- If your medication is working well when you take it with meals, you can continue doing so, and monitor for any changes to the management of PD symptoms









Q: I heard you have to space levodopa from protein?

- Protein may block the absorption of levodopa, thus decreasing its effectiveness
- Everyone with PD has a different experience with protein intake and levodopa
- If experiencing delayed on (i.e. long time for medication to "kick in"), examine your protein intake









"I take a levocarb tablet before I go to bed, but I'm still waking up in the middle of the night, and it takes me a long time to get back to sleep"

- Chew a levocarb IR tablet and take with a carbonated beverage to help speed up onset of action
- Update your healthcare provider(s) at your next appointment









Q: Currently taking Synthroid and levodopa. What is the best way to take them?

- Synthroid (levothyroxine) is used to treat hypothyroidism
- Synthroid is best taken on an empty stomach
 - Space by 4 hours from aluminum, magnesium, calcium, iron supplements, simethicone (Gas-X)
 - 60 minutes before coffee/tea (?)
 - 30 to 60 minutes before meals (and other medications*)
 - Certain medications need to be spaced from Synthroid for a longer period of time (talk to your pharmacist)









Q: Currently taking Synthroid and levodopa. What is the best way to take them?

• Example #1:

- 7:00 am: Synthroid (with water)
- 7:30 am: Levodopa (with water)
- 8:00 am: Breakfast with coffee or tea

Example #2:

- 7:00 am: Synthroid (with water)
- 8:00 am: Levodopa (with water)
- 8:30 am: Coffee or tea
- 9:00 am: Breakfast









Q: L-Tyrosine for Parkinson's?

 According to Natural Medicines, there is insufficient reliable information about the clinical effects of tyrosine for Parkinson's disease









Q: Is Rytary available in Canada? When will it be?

- Rytary is an extended-release formulation of levodopa/carbidopa and is available in the United States
- No information on when and if it will be available in Canada









Q: When will Sinemet be available again?

- Sinemet is brand name levodopa/carbidopa
- Active shortage of Sinemet, both 100 mg/25 mg and 250 mg/25 mg
- Estimated end date: December 31st, 2021
 - Last updated on January 22nd, 2021 by drugshortagescanada.ca









More Information on PD Medications?

- Go to https://www.parkinson.bc.ca/
- Click Resources & Services
- Click Resources (in left-hand menu)
- Under Index of Resources, click Treatment/Medication
- Look for Parkinson's Medication Series | Amy Tran









Thank You!



