# Medication Support Groups for Parkinson Disease

Session #1 Medication Management Of Motor Symptoms in PD | February 3, 2024 | 10-11 AM





#### Introductions

#### Amy Tran

Pharmacist
Parkinson Wellness Projects

#### Dr. Larry Leung

Associate Professor of Teaching Faculty of Pharmaceutical Sciences University of British Columbia

#### Pharmacy Student Leads:

- Elizabeth Chan
- Olivia Lee

#### Pharmacy Student Volunteers:

- Ayah AlAnsari
- Yasaman Bagheri Hariri
- Ilianna Doornbos
- Isabella Durante
- Emily Liu
- Mark Seo







### Session Outline

- Educational session
- Q&A
- Debrief
- Survey





## Learning Objectives

- Describe the three cardinal symptoms of PD
- Discuss early vs. late/advanced medication therapy in PD
- Compare the safety and efficacy of: levodopa/carbidopa, dopamine agonists, and MAO-B inhibitors





#### What is Parkinson Disease?

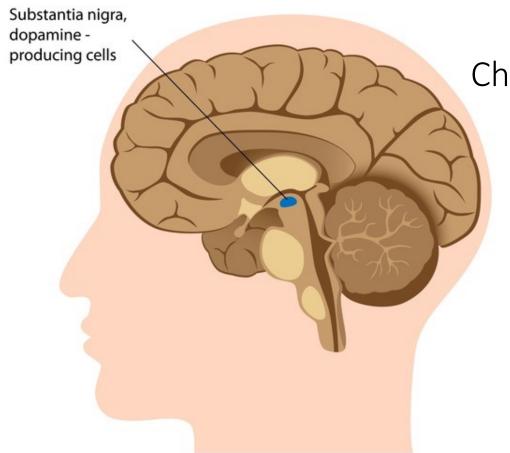
- Imagine the brain is like a conductor of an orchestra
- An error in the conductor's baton slower/less precise – musicians aren't able to follow the right tempo







#### Parkinson's disease



Chronic, progressive, neurodegenerative disease



## **MOTOR Symptoms**

- Cardinal clinical features:
  - RESTING TREMOR
  - BRADYKINESIA
  - RIGIDITY



 Postural instability and asymmetric onset are supporting features





## **NONMOTOR Symptoms**

- Pain
- Memory challenges
- Changes in mood and sleep
- Autonomic dysfunction
  - Low blood pressure from sitting to standing
  - Constipation
  - Changes to urination





## Medication Management

- No treatment to prevent or delay PD progression
- Treatment often determined by patient-specific factors including:
  - Risks vs. benefits
    - Age
    - Motor symptoms limbs affected
    - Limitations to social, work, daily activities of living, quality of life
  - Early vs. late/advanced





## Medication Management

- Levodopa/Carbidopa or Levodopa/benserazide
- Dopamine Agonists (ropinirole, pramipexole, rotigotine)
- MAO-B Inhibitors (rasagiline, selegiline, safinamide)





## How do they work?

#### Levodopa/Carbidopa

Increases the amount of dopamine in the brain

#### Dopamine Agonists

Mimics the effects of dopamine in the brain

#### MAO-B Inhibitors

Stops dopamine from being broken down in the brain





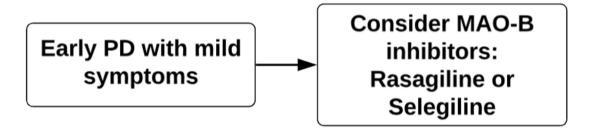
# **Efficacy and Safety**

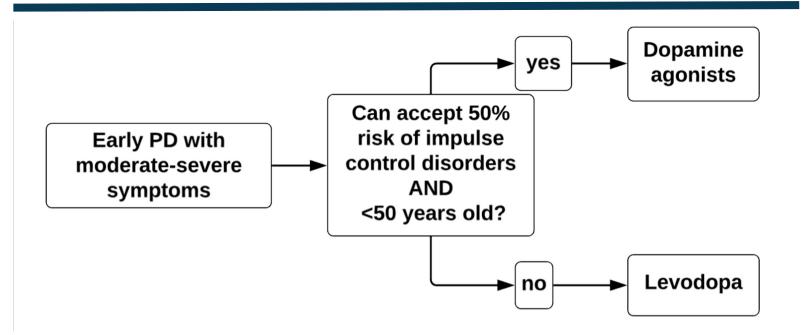
	Levodopa/ Carbidopa	Dopamine Agonists	MAO-B Inhibitors
EFFICACY (motor symptom control)	Most effective (gold standard drug)	Moderately effective	Least effective
SAFETY (side effects)	Dyskinesias (higher risk), nausea, low blood pressure, confusion, hallucinations	Impulse control disorder, daytime drowsiness, dyskinesias (lower risk), nausea, low blood pressure, confusion, hallucinations	Dyskinesias (lower risk), nausea, low blood pressure, confusion, hallucinations





## Treatment in Early PD

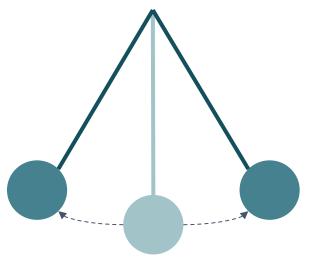








## Treatment in Late/Advanced PD



- As PD progresses, response to medication changes over time
- After 5 years, 50% of patients on Levodopa/carbidopa will experience MOTOR FLUCTUATIONS and/or DYSKINESIAS

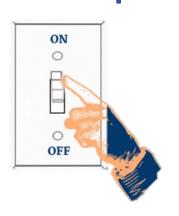


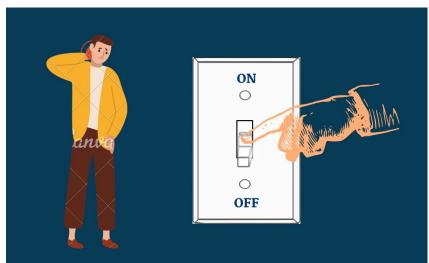




# Motor Fluctuations – TOO LITTLE Dopamine







Ability to move turns "ON" and "OFF" after taking your medication





# Dyskinesias – TOO MUCH Dopamine

Large, uncontrolled "writhing" or "dance-like" movements that often affect neck, arms and legs as a result of TOO much Dopamine







### Treatment in Late/Advanced PD

- Depending on the type of motor fluctuation or dyskinesia,
   your healthcare team may try:
  - Adjusting the dose of your current medication
  - Adjusting the frequency of your current medication
  - Adding new medication e.g. amantadine or entacapone
- To be discussed in more detail in SESSION 2











#### **Parkinson Wellness Projects:**

 https://parkinsonwellness.ca/ medication-management







## **SURVEY (OPTIONAL)**

We would like to hear your experience participating in these medication support groups today!

Participation in this study will involve an online survey (~15 minutes) about your experience participating in the Online Medication Support Groups for Parkinson Disease. All data will be kept confidential and survey data will be anonymous.

If you participate, you will be entered into a raffle for a \$25 gift card. If you have any questions, please contact Larry Leung at larry.leung@ubc.ca.

https://ubc.ca1.qualtrics.com/jfe/form/SV\_3klvBe6iBdf2bUq



