

Medications

Medications for Motor Symptoms

• Levodopa

- Carbidopa/ levodopa (Sinemet)
- Carbidopa/levodopa controlled-release tablets (Sinemet CR)
- Carbidopa/ levodopa oral dissolving tablets (Parcopa)
- Carbidopa/levodopa extended-release capsules (Rytary*)
- Carbidopa/levodopa fractionated tablets (Dhivy*)
- Levodopa inhalation (Inbrija*)

Dopamine agonists

- Pramipexole (Mirapex)
- Pramipexole extended-release tablets (Mirapex ER)
- Ropinirole (Requip)
- Ropinirole extended-release tablets (Requip XL)
- Rotigotine (Neupro patch*)
- Apomorphine injections (Apokyn*)
- Apomorphine sublingual (Kynmobi*)

MAO-B Inhibitors

- Selegiline (Eldepryl)
- Rasagiline (Azilect)
- Safinamide (Xadago*)

COMT Inhibitors

- Entacapone (Comtan)
- Tolcapone (Tasmar)
- Carbidopa/levodopa/ entacapone (Stalevo)
- Opicapone (Ongentys*)

Amantadine

- Amantadine (Symmetrel)
- Amantadine extended release tablets (Osmolex ER*)
- Amantadine extended release capsules (Gocovri*)

Adenosine Antagonists

- Istradefylline (Nourianz*)

Anticholinergics

- Trihexyphenidyl (Artane)
- Benztropine (Cogentin)

**Asterisks indicate medications that are available only as the brand name*

Carbidopa/Levodopa

- Levodopa is the gold standard treatment for motor symptoms
- Levodopa (L-dopa) is converted to dopamine in the brain
- For most people, greatest benefit for tremor, stiffness, slowness
- Possible common side effects are nausea and light-headedness
 - These are possible with most Parkinson's medications

Dopamine Agonists

- Pramipexole, ropinirole, Neupro patch*
- Second-most effective category of medications
- Advantages
 - Over the course of several years, less likely to cause dyskinesias
 - Sometimes used as first-line for young-onset Parkinson's
- Disadvantages
 - More likely to cause impulse control disorders
 - Possible sudden sleepiness, leg swelling

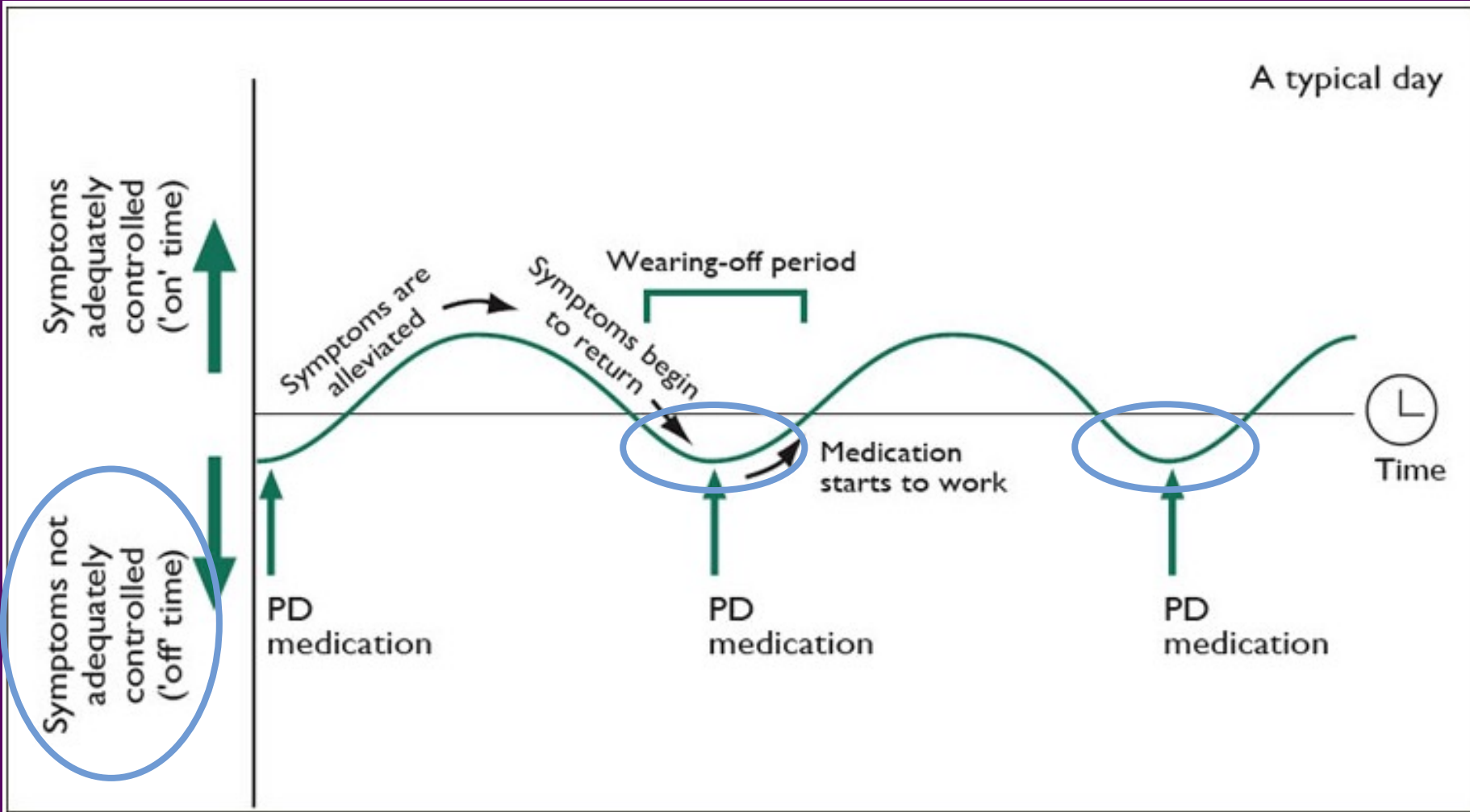
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MAO-B Inhibitors

- Selegiline, rasagiline, Xadago*
- MAO is an enzyme involved in normal dopamine recycling in the brain
- Inhibiting MAO increases dopamine
- Mild benefit, well tolerated
 - Often used alone in early Parkinson's
 - Often used in combination with other medications
 - Due to fewer side effects, can be used in people who are older

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Fluctuations



COMT Inhibitors

- Entacapone, tolcapone, Ongentys*
- A “booster” category
- Catechol-O-methyl transferase (COMT) is involved in the breakdown of levodopa
- COMT inhibitors are only used in combination with carbidopa/levodopa, as no effect on their own
- Entacapone (Comtan)
 - Available separately or as combination carbidopa/levodopa/ entacapone (Stalevo)
 - Unique side effects of which to be aware- diarrhea, orange discoloration

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Adenosine Receptor Antagonists

- Nourianz*
- Blocks adenosine
- Likely increases dopamine signaling
- Currently approved only as an add-on (“booster”) to levodopa

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Amantadine

- Unique among Parkinson's medications
 - Provides benefit for motor symptoms of tremor, stiffness, and slowness as other medicines do
 - Only medication that is used to treat dyskinesias
- Side effects may limit use over age 65
 - Dry eyes, dry mouth, constipation, hallucinations

One more category- Anticholinergics

- Trihexyphenidyl (Artane), benztropine (Cogentin)
- Benefit for tremor, but not stiffness and slowness
- Side effects may limit use over age 65
 - “Anticholinergic side effects” is the term used to describe some of the possible side effects of these and certain other medicines
 - Dry eyes, dry mouth, constipation, hallucinations