

Spotlight on Parkinson's Disease: **Enhancing Communication About Off**



PARKINSON'S DISEASE

SPOTLIGHT ON PARKINSON'S **DISEASE: ENHANCING** COMMUNICATIONS ABOUT OFF

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program provided by:

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WELCOME AND INTRODUCTIONS



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Spotlight on Parkinson's Disease: Enhancing Communication About Off



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FINANCIAL DISCLOSURES

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Equity & Consulting Agreements: None



ON AND OFF TIME IN PARKINSON'S DISEASE

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- A. What is meant by ON and OFF time in Parkinson's disease?
- B. Why does this phenomenon occur?
- C. What if I can't discern a pattern to my ON and OFF time?
- D. What are the current potential solutions to this problem?
- E. What are future strategies being investigated to solve this problem?



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SYMPTOMS OF ON AND OFF TIME

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Motor symptoms – slowness, stiffness, difficulty walking, tremor, dystonia (e.g. toe curling)

Non-motor symptoms – anxiety, depression, pain









WHAT IF I KNOW THAT MY RESPONSE TO MEDICATION VARIES DURING THE DAY, BUT IT SEEMS RANDOM AND UNRELATED TO MEDICATION DOSES?

- Very common for patients to feel this way!
- Keep a medication diary

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- To keep an accurate diary, you must be able to tell the difference between tremor and dyskinesia
 - Videotape your movements to bring to your doctor visit
 - Prolonged doctor visit to capture movements
 - Wearable technology









MEDICATION EFFICACY AND THE GI TRACT

- Delayed gastric emptying is a non motor symptom of Parkinson's disease and can interfere with levodopa absorption
- Dietary protein can interfere with absorption of levodopa
- Other GI pathology may interfere with levodopa absorption (Helicobacter pylori, Small intestinal bacterial overgrowth (SIBO))

MEDICATION DIARY #1											
	Time	Awake?	medication	food	ON, OFF, troublesome dyskinesia?						
	7:00 AM	γ	1 tab levodopa	Cheerios	OFF						
	7:30 AM	Υ	Ν		ON						
	8:00 AM	γ	Ν		ON						
	8:30 AM	γ	Ν		ON						
	9:00 AM	γ	Ν		ON						
	9:30 AM	γ	Ν		ON						
	10:00 AM	γ	Ν		OFF	urns OFF					
	10:30 AM	γ	Ν		OFF	earry					
	11:00 AM	γ	1 tab levodopa		OFF						
	11:30 AM	γ	Ν		ON						
	Noon	γ	Ν	Salmon	ON	Protein					
	12:30 PM	Y	Ν		OFF 🔶	effect?					
						14					



RESPONSE TO MEDICATION DIARY #1

- · Patient wears off before the dose is due
 - There are many potential fixes to this problem
 - General principle even out levodopa delivery
 - One solution is moving second dose to 10 AM
- · Patient may have protein effect
 - Move protein intake to the end of the day

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MEDICATION DIARY #2							
Time	Awake?	medication	food	ON, OFF, troublesome dyskinesia?			
Noon	Y	1 tab levodopa	Soup and salad	OFF Never turned			
12:30 PM	Y	Ν		OFF ON from			
1:00 PM	Y	Ν		OFF			
1:30 PM	Y	1 tab levodopa		OFF —Took extra dose			
2:00 PM	Y	Ν		Troublesome dyskinesias			
2:30 PM	Y	Ν		ON			
3:00 PM	Y	Ν		ON			
3:30 PM	Y	1 tab levodopa		OFF			
4:00 PM	Y	Ν		OFF Delayed ON			
4:30 PM	Y	Ν		OFF			
5:00 PM	Υ	Ν	Bread	ON16			



RESPONSE TO MEDICATION DIARY #2

• Pattern is much harder to discern

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- There seem to be dose failures or delayed ONs, unrelated to protein intake
- Consider GI workup to look for GI causes of dose failure
- · Consider a rescue dose for these times





THE GENERAL STRATEGY FOR TREATING OFF TIME

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Do not let the levels of dopamine fall below a certain point.









CURRENT SOLUTIONS TO OFF TIME: CONTINUOUS

- Smooth out levodopa dosage by giving smaller doses more frequently
- · Pay attention to protein intake, other GI issues
- Add MAOI (e.g. selegiline, rasagiline, safinamide)
- Add dopamine agonist, including long acting versions (e.g. pramipexole ER, ropinirole XL, rotigotine patch)

dose

- Add COMT inhibitor (e.g. entacapone, tolcapone)
- · Use longer acting levodopa formulation: rytary
- Use longer acting levodopa formulation: duopa
- Deep brain stimulation

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FOCUSED ULTRASOUND

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> Focused beams of ultrasound energy converge within the brain tissue to form a small lesion that interferes with the brain circuitry clinicaltrials.gov/ct2/show/NCT03319485



https://www.insightec.com/











SUMMARY

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- ON and OFF time can adversely affect quality of life in patients with Parkinson's disease
- Keeping track of timing of medication doses and clinical response can be very helpful
- There are many current strategies to help ON and OFF time and many additional strategies that are under development

Questions?









CLOSING REMARKS



Stephanie Paul Vice President Development and Marketing American Parkinson Disease Association



FOR ADDITIONAL INFORMATION, ANSWERS TO YOUR QUESTIONS, OR FOR ADDITIONAL RESOURCES

Please visit our website apdaparkinson.org

Or call us
1-800-223-2732

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