

PARKINSON'S DISEASE (PD) IS MORE THAN MOTOR SYMPTOMS.

In fact, ~50% of patients with PD may experience hallucinations or delusions over the course of their disease, but ~90% of patients don't proactively tell their physician about it.¹⁻³

HAVE YOU CONSIDERED PARKINSON'S DISEASE PSYCHOSIS?

POTENTIAL IMPACT OF HALLUCINATIONS AND DELUSIONS⁴⁻⁹

- Reduced quality of life for patients
- Increased caregiver burden, cost of care, risk of hospitalizations, and placement in long-term care facilities

EVALUATE RISK FACTORS OF PD PSYCHOSIS^{1,2,10,11}

- Older age
- Longer duration of PD
- Greater severity of disease
- Presence of dementia, sleep disturbances, and depression

IDENTIFY EARLY SIGNS OF HALLUCINATIONS AND DELUSIONS¹²⁻¹⁴

- Often starts with minor phenomena like illusions, false sense of presence or passage
- May progress to fully-formed symptoms like hallucinations and delusions

RESULTS OF A RECENT SURVEY

Caregivers (n=357) are 2 to 4 times more likely than patients (n=216) to recognize the presence of hallucinations and delusions and may provide important insight into your patients' condition.^{15*}

If your patient with PD is experiencing recurring hallucinations or delusions like any of the examples below, they may be experiencing hallucinations and delusions associated with PD.¹³

HALLUCINATIONS^{2,13}

Abnormal perceptions without a physical stimulus that can involve any sensory modality. Examples include:



VISUAL HALLUCINATIONS

Seeing people (living or deceased) or animals



AUDITORY HALLUCINATIONS

Hearing voices or music



OLFACTORY HALLUCINATIONS

Smelling unusual odors



TACTILE HALLUCINATIONS

Feeling something touching or moving on the skin

DELUSIONS^{13,16,17}

False, fixed idiosyncratic beliefs that are maintained despite evidence to the contrary. Examples include:



PERSECUTORY DELUSIONS

Believing someone is trying to harm, steal from, or deceive you



JEALOUSY DELUSIONS

Believing someone is cheating on you



REFERENCE DELUSIONS

Believing a song or TV show is speaking to you directly

Have you talked about symptoms of psychosis with your PD patients and their caregivers?

*Survey was sponsored by ACADIA Pharmaceuticals Inc. and conducted online with the PMD Alliance membership from March 19 to March 31, 2018. Seven hundred people responded to the survey. Of the respondents, 378 were care partners and 287 were people with Parkinson's disease. About 90% of the respondents reported having experience with non-motor symptoms in PD, including sleep problems (84%), cognitive symptoms (76%), anxiety (65%), depression (56%), hallucinations (40%) and delusions (23%).¹⁵

This tool was developed in collaboration with:



For additional information regarding PDP, please visit www.moretoparkinsons.com or our partner organizations websites.

References: 1. Forsaa EB, Larsen JP, Wentzel-Larsen T, et al. A 12-year population-based study of psychosis in Parkinson disease. *Arch Neurol.* 2010;67(8):996-1001. 2. Fénelon G, Mahieux F, Huon R, Ziegler M. Hallucinations in Parkinson's disease: prevalence, phenomenology and risk factors. *Brain.* 2000;123(Pt 4):733-745. 3. Chaudhuri KR, Prieto-Jurcynska C, Naidu Y, et al. The nondeclaration of nonmotor symptoms of Parkinson's disease to health care professionals: an international study using the nonmotor symptoms questionnaire. *Mov Disord.* 2010;25(6):704-709. 4. Schrag A, Horvis A, Morley D, Quinn N, Jahanshahi M. Caregiver-burden in Parkinson's disease is closely associated with psychiatric symptoms, falls, and disability. *Parkinsonism Relat Disord.* 2006;12(1):35-41. 5. Mack J, Rabins P, Anderson K, et al. Prevalence of psychotic symptoms in a community-based Parkinson disease sample. *Am J Geriatr Psychiatry.* 2012;20(2):123-132. 6. Martinez-Martin P, Rodriguez-Blazquez C, Kurtis MM, Chaudhuri KR, for NMSS Validation Group. The impact of non-motor symptoms on health-related quality of life of patients with Parkinson's disease. *Mov Disord.* 2011;26(3):399-406. doi:10.1002/mds.23462 7. Hermanowicz N, Edwards K. Parkinson's disease psychosis: symptoms, management, and economic burden. *Am J Manag Care.* 2015;21(10)(suppl):S199-S206. 8. Klein C, Prokhorov T, Miniovitz A, Dobronevsky E, Rabey JM. Admission of Parkinsonian patients to a neurological ward in a community hospital. *J Neural Transm (Vienna).* 2009;116(11):1509-1512. 9. Goetz CG, Stebbins GT. Risk factors for nursing home placement in advanced Parkinson's disease. *Neurology.* 1993;43(11):2227-2229. 10. Holroyd S, Currie L, Wooten GF. Prospective study of hallucinations and delusions in Parkinson's disease. *J Neurol Neurosurg Psychiatry.* 2001;70(6):734-738. 11. Giladi N, Treves TA, Paleacu D, et al. Risk factors for dementia, depression and psychosis in long-standing Parkinson's disease. *J Neural Transm (Vienna).* 2000;107(1):59-71. 12. Fernandez HH, Aarsland D, Fénelon G, et al. Scales to assess psychosis in Parkinson's disease: critique and recommendations. *Mov Disord.* 2008;23(4):484-500. 13. Ravina B, Marder K, Fernandez HH, et al. Diagnostic criteria for psychosis in Parkinson's disease: report of an NINDS, NIMH work group. *Mov Disord.* 2007;22(8):1061-1068. 14. Goetz CG, Fan W, Leurgans S, Bernard B, Stebbins GT. The malignant course of "benign hallucinations" in Parkinson disease. *Arch Neurol.* 2006;63(5):713-716. 15. Hermanowicz N, Jones SA, Hauser RA. Impact of non-motor symptoms in Parkinson's disease: a PMDAlliance survey. *Neuropsychiatr Dis Treat.* 2019;15:2205-2212. 16. Andreasen NC. *Scale for the Assessment of Positive Symptoms (SAPS).* Iowa City, IA: University of Iowa; 1984. 17. Voss T, Bahr D, Cummings J, Mills R, Ravina B, Williams H. Performance of a shortened scale for assessment of positive symptoms for Parkinson's disease psychosis. *Parkinsonism Relat Disord.* 2013;19(3):295-299.