Tip Sheet: Diagnosis and Treatment of Parkinson's Disease

Parkinson's Disease (PD) is a progressive neurodegenerative disease that results in nerve cell dysfunction and loss. People with PD, their families, care coordinators and other members of their care teams can use this tip sheet for an overview of PD symptoms, common treatments and support options.

Diagnosing Parkinson's Disease

Common early warning signs for PD include:

- Difficulty fastening buttons on clothing
- Slowed movements or a feeling of weakness
- Stiffness or difficulty using a limb
- Stooping or shuffling when walking
- Trouble with movements such as getting out of chairs or turning in bed
- Low or soft voice

Neurologists or other physicians diagnose PD when Individuals exhibit bradykinesia (slowness of movement) and at least one of the following:

- Rest tremor (which occurs in a body part that is relaxed and completely supported) - present in 75 percent of individuals with PD
- Muscular rigidity
- Postural instability or balance issues

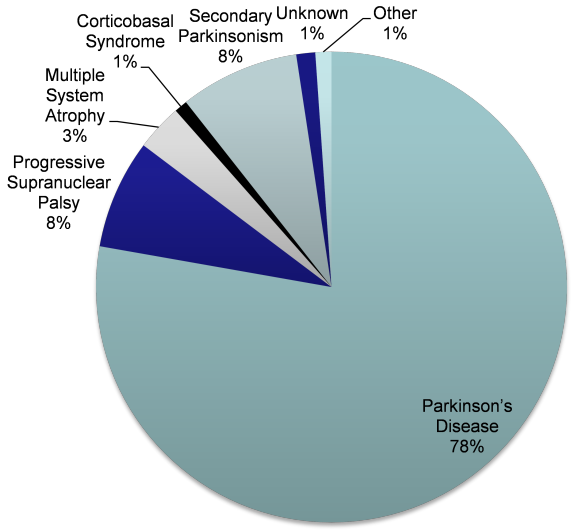
Other neurological disorders can cause these symptoms as well. The following section provides more detail.

Parkinsonism or Parkinson's Disease?

Parkinsonism is an umbrella term for a group of neurological disorders that cause movement problems similar to those in PD. PD causes almost 80% of Parkinsonism.

PD differs from other Parkinsonism disorders in that it is a progressive neurological disease caused by Lewy bodies.

Diagnosis can be challenging when an individual initially experiences symptoms of Parkinsonism. For example, drugs that reduce dopamine transmission (such as antipsychotic drugs) can cause symptoms that are initially indistinguishable from PD.



Adapted from Stacy and Jankovic, Neurol Clin, 1992 10(2), 341

Non-Motor Symptoms in Parkinson's Disease

Ninety-nine percent of patients with PD also report non-motor symptoms (those that are not related to movement), which increase over time as the disease progresses. Non-motor symptoms can include:

- Challenges related to sleep (insomnia, dream disorders, daytime sleepiness)
- Gastrointestinal symptoms (drooling, nausea, constipation, abnormal swallowing)
- Leg pain
- Fatigue
- Urinary difficulties (incontinence, urgency, waking up at night to urinate)
- Dizziness as a result of low blood pressure
- Changes in cognitive function (concentration, memory, executive dysfunction, hallucinations)
- Other changes: abnormal sense of smell/taste, vision changes, weight changes, sexual dysfunction, falls, respiratory trouble

Neuropsychiatric Disorders in Parkinson's Disease

Changes in mood and behavior occur in at least half of people with PD, with approximately 40 percent experiencing depression.[1, 2] Up to 55 percent of people with PD have clinically significant anxiety symptoms and 31 percent have an anxiety disorder.[3, 4] Depression and anxiety frequently co-occur for people with PD. People with PD may also experience Parkinson's Disease Psychosis (PDP). Diagnostic criteria for PDP includes at least one of the following:

- Illusions (misinterpreting things that are there)
- Hallucinations (seeing or hearing things that are not there)
- False sense of presence (feeling someone is in the room with them)
- Delusions (believing things that are not true)

The impact of depression on quality of life is almost twice that of motor impairments, with some studies indicating that depression has the largest impact on quality of life for people with PD.[5] Neuropsychiatric disorders can also result in:

- Increased need for support with activities of daily living
- A sudden, temporary inability to move called freezing
- Increased "on-off" fluctuations where motor functions improve with medication and then worsen as it wears off
- Increased caregiver distress
- Increased risk of hospitalization, nursing home placement, and mortality

[1] Reijnders, J. S., Ehrt, U., Weber, W. E., Aarsland, D., & Leentjens, A. F. (2008). A systematic review of prevalence studies of depression in Parkinson's disease. *Movement Disorders*, *23*(2), 183-189.

[2] Mayeux, R., Stern, Y., Rosen, J., & Leventhal, J. (1981). Depression, intellectual impairment, and Parkinson disease. *Neurology*, *31*(6), 645-645.

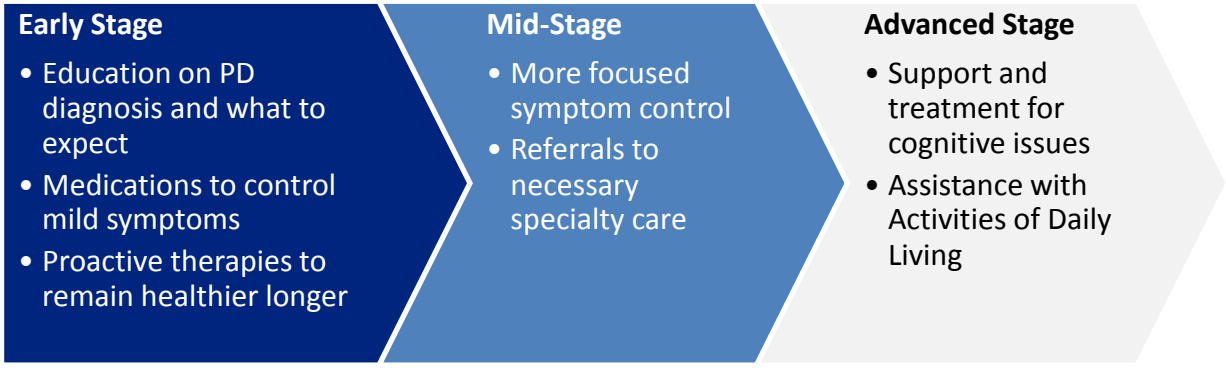
[3] Yamanishi, T., Tachibana, H., Oguru, M., Matsui, K., Toda, K., Okuda, B., & Oka, N. (2013). Anxiety and depression in patients with Parkinson's disease. *Internal medicine*, *52*(5), 539-545.

[4] Broen, M. P., Narayen, N. E., Kuijf, M. L., Dissanayaka, N. N., & Leentjens, A. F. (2016). Prevalence of anxiety in Parkinson's disease: A systematic review and meta-analysis. *Movement Disorders*, *31*(8), 1125-1133.

[5] Depression. (n.d.). Retrieved from http://www.parkinson.org/Understanding-Parkinsons/Symptoms/Non-Movement-Symptoms/Depression

Treatment for Parkinson's Disease

Healthcare needs and necessary treatment and support for individuals with PD may change over time as shown in the graphic below.



Individuals with PD benefit from a **comprehensive care team** including a primary care physician (PCP), neurologist, caregivers, and specialists. The neurologist is often the primary physician for PD treatment, but a PCP should serve as a hub for all medical issues. It is important for the PCP to receive reports and records from all specialists.

Medications used to treat PD include MAO-b inhibitors, dopamine agonists, carbidopa/levodopa, COMT inhibitors, antipsychotics, cognitive, and amantadine. Individuals with PD should avoid haloperidol, aripiprazole, or metoclopramide medications often used in emergency room or post-operative cases as they can worsen the symptoms of PD.

Nonpharmacological therapy for PD may include a regular exercise program or a home visit by an occupational therapist to plan placement of assistive devices, such as bathtub benches or furniture risers. Physical therapy, occupational therapy, speech therapy, or community exercise programs are often effective treatments for individuals with PD. Advanced surgical treatments such as Deep Brain Stimulation surgery (DBS) and Levodopa-Carbidopa Intestinal gel are appropriate for some individuals.

Education and support groups cover a range of topics that may assist individuals and their supports in managing PD. These groups allow individuals and family members to become advocates and link them to appropriate community resources. As these groups are frequently specific to a local area, they may also serve as a valuable source of social support.

Treatment and Management of Neuropsychiatric Disorders in PD

Depression

- Exercise
- Talk therapy, e.g., cognitive behavioral therapy
- Antidepressant medication

Anxiety

- Cognitive behavioral therapy
- Optimizing motor functions and addressing "on-off" fluctuations
- Antidepressants, and benzodiazepines
    - Note: benzodiazepines may have additional risks for individuals with PD

Parkinson's Disease Psychosis

- Treatment of underlying medical illness, if needed
- Discontinuation or reduction of medications that may exacerbate psychosis including PD medications
- Use of antipsychotic therapy
- Cholinesterase inhibitors
- Nonpharmacological techniques to address PDP such as:
    - Improved lighting to manage illusions and hallucinations
    - Increasing interactions with others to reduce isolation
    - Discussion and education

This tip sheet supplements the 2017 Geriatric-Competent Care webinar, Diagnosis and Treatment of Parkinson's Disease. Find the recording, transcript, and slides here: https://resourcesforintegratedcare.com/GeriatricCompetentCare/2017_GCC_Webinar_Series/Parkinsons. This document sources information from the webinar. Thank you to the presenters: Liana Rosenthal, MD, Gregory Pontone, MD, and Arita McCoy, RN, BSN, at the Morris K. Udall Centers of Excellence for Parkinson's Disease Research, Johns Hopkins University School of Medicine, and Maryann Powderly, Family Caregiver.

The Medicare-Medicaid Coordination Office (MMCO) in the Centers for Medicare & Medicaid Services (CMS) seeks to help beneficiaries dually eligible for Medicare and Medicaid have access to seamless, high-quality health care that includes the full range of covered services in both programs. This tip sheet is intended to support health plans and providers in integrating and coordinating care for dually eligible beneficiaries. It does not convey current or anticipated health plan or provider requirements. For additional information, please go to https://www.resourcesforintegratedcare.com/.