Parkinson's and Dementia: What's the Connection?

Putting the Pieces Together

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Speakers

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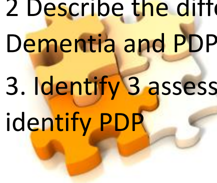
Objectives

1. Describe 2 symptoms of Parkinson's Disease Psychosis (PDP)

2 Describe the difference between Dementia and PDP

3. Identify 3 assessment items that help identify PDP



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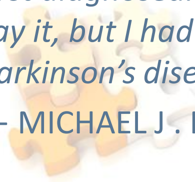

"I feared Parkinson's most when I least understood it — the early days, months, and years after I was first diagnosed. It seems strange to say it, but I had to learn to respect Parkinson's disease."

— MICHAEL J. FOX

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Overview of Parkinson's Disease

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What is Parkinson's Disease

- Parkinson's disease is a progressive nervous system disorder that affects movement.
- Parkinson's affects **nearly 1 million people in the United States** and **more than 6 million people worldwide**.
- Lifelong and progressive disease,
  - symptoms slowly worsen over time.
- Symptoms and progression vary from person to person
- Symptoms often begin on one side of your body and usually remain worse on that side, even after symptoms begin to affect both sides.

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Types of Parkinson's

- **2 types of Parkinson's symptoms:**
  - "movement disorder."
    - **Tremors,**
    - **Slowness,**
    - **Stiffness/ Rigid**
    - **Walking and balance problems**
    - **Loss of automatic movements.**
    - **Speech changes**
    - **Writing changes**

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Types cont.

- **Non-Motor Symptoms (Complications)**
  - constipation, depression,
  - memory problems, loss of mental sharpness/acuity,
  - insomnia, vivid dreams,
  - and daytime sleepiness,
  - impaired bladder control,
  - drooling, impaired taste, and swallowing.
  - sexual dysfunction,
  - vision problems/dizziness,
  - sweating, body aches, and
  - generalized discomfort
  - delusions, hallucinations,
  - anxiety, pseudobulbar affect (inappropriate laughing and crying)

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What Causes Parkinson's Disease?

- Occurs when **brain cells that make dopamine, a chemical that coordinates movement, stop working or die**

Cause of Decreased Dopamine

- a **combination of <u>environmental</u>**.
  - pesticides and head injury,
  - in the early 1980s, a group of heroin users in California developed a form of Parkinson's after taking drugs contaminated with a toxin called MPTP.
- **and <u>genetic factors</u>**
  - **Certain genetic mutations are linked to an increased risk of PD**.
  - researchers estimating that about 30 percent of Parkinson's risk is explained by genetics
- **<u>Aging is the greatest risk factor</u>** for Parkinson's, and the average age at diagnosis is 60**.** Still, some people get PD at 40 or younger.
  - researchers project the number of people with Parkinson's will double by 2040
  - cells may be more susceptible to damage as they age
- **Men are diagnosed** with Parkinson's at a higher rate than women

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Dementia

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Dementia Overview

- **Dementia** is a general term for loss of memory, language, problem-solving and other thinking abilities that are severe enough to interfere with daily life. Alzheimer's is the most common cause of dementia.
  - not a single disease; it's an overall term
  - covers a wide range of specific medical conditions
  - disorders are caused by abnormal brain changes (damage to brain cells)
  - can affect behaviors, feelings and relationships a well

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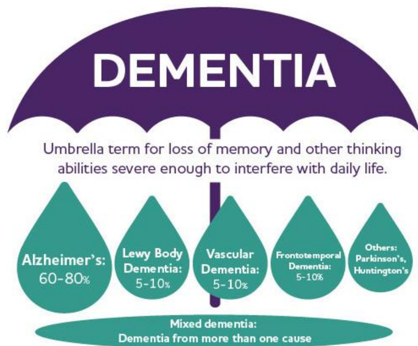

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https://www.alz.org/alzheimers-dementia/what-is-dementia#:~:text=Dementia%20is%20a%20general%20term,help%20those%20affected%20by%20Alzheimer's.

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Parkinson's Disease Psychosis

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Parkinson's Disease Psychosis (PDP)

- Approximately 50% of people living with Parkinson's may experience hallucinations or delusions over the course of their disease.
- Parkinson´s disease (PD) is the second most common neurodegenerative disease
- Causes of Hallucinations and Delusions
  - Side Effect of Dopamine therapy
  - Natural Progression of Disease
- What's it like through the resident's perception:
  - Seeing things that others don't see –
    - Like people either living or dead
    - Animals or other objects
  - Hearing noises that others don't
    - Music Conversations
    - Voices

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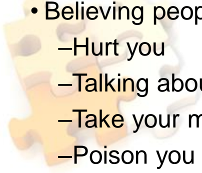
Parkinson's Psychosis cont.

- Resident Perception cont.
  - Paranoia (psychotic disorder characterized by delusions of persecution.)
    - Believing people want to
      - Hurt you
      - Talking about you
      - Take your money
      - Poison you



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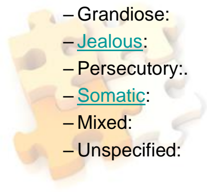
Parkinson's Psychosis cont.



- False beliefs (Delusions)
  - Delusions are fixed beliefs that do not change, even when a person is presented with conflicting evidence.
    - Erotomaniac:
    - Grandiose:
    - Jealous:
    - Persecutory:.
    - Somatic:
    - Mixed:
    - Unspecified:

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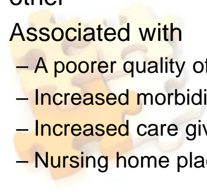
Difference Between PDP and Dementia



- Psychosis and dementia often co-exist
- Development of one often signals the other
- Associated with
  - A poorer quality of life
  - Increased morbidity and mortality
  - Increased care giver burden
  - Nursing home placement

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Delusions and hallucinations are prevalent across the dementias

PDP – ~320,000 50% psychosis D – 28-50% H- 32-63%

Table 1. Delusions and hallucinations are prevalent across the dementias.

	No. of People in US With Dementia	Overall Psychosis Prevalence	Delusions Prevalence	Hallucinations Prevalence
Alzheimer's Disease Dementia	~5.5 million	30%	10%-39%	11%-17%
Vascular Dementia	~1.6 million	15%	14%-27%	5%-14%
Dementia With Lewy Bodies	~430,000	75%	40%-57%	55%-78%
Parkinson's Disease Dementia	~320,000	50%	28%-50%	32%-63%
Frontotemporal Dementia	~80,000	10%	2.3%-6%	1.2%-13%

~2.4 million people in the US have dementia-related psychosis

https://morethancognition.neurologyreviews.com/wp-content/uploads/Understanding_the_Burden_The_Impact_and_Consequences_of_Dementia-Related_Psychosis_on_Patients_Caregivers_and_Society.pdf

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Recognition

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Recognition of Symptoms

- Identify current Diagnoses
- Observe the resident
- Review the documentation
- Interview the resident
  - Asking pertinent questions
- Interview the family

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Drawing Some Potential Conclusions

- Presence of at least one of the following symptoms:
  - – Illusions – Hallucinations
  - – False sense of presence – Delusions
- The above symptoms must be recurrent or continuous for at least 1 month and have occurred after the onset of PD.
- PD psychosis may occur with or without:
  - Insight
  - Dementia
  - Parkinson's disease treatment

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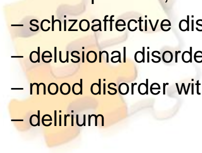
Exclusions



- Other potential medical and psychological causes of psychosis must be excluded before a diagnosis of PD psychosis is made.
  - dementia with Lewy bodies,
  - schizophrenia,
  - schizoaffective disorder,
  - delusional disorder,
  - mood disorder with psychotic features,
  - delirium

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Coding

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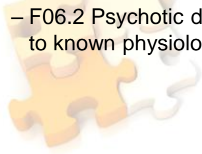
Diagnoses Codes

- Diagnosis codes for PD Psychosis
  - G20 Parkinson's Disease
  - F06.0 Psychotic disorder with **hallucinations** due to known physiological condition
  - F06.2 Psychotic disorder with **delusions** due to known physiologic condition



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Documentation

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Assessment

Parkinson's Disease (PD) Psychosis Screening Tool for Long-Term Care (LTC) Residents

To: ______________________ Date: __________
(enter HCP name here)
Facility staff have identified that your resident may be experiencing symptoms of PD psychosis. The information below may be helpful in establishing a diagnosis.

RESIDENT IDENTIFICATION
Resident Name: ______________________
Room Number: __________

HISTORY
☐ The resident has been previously diagnosed with Parkinson's Disease
Screened by: ______________________ ☐ G20 ICD code on chart

POTENTIAL MOTOR SYMPTOMS[1]
☐ Bradykinesia
☐ Gait impairment
☐ Rigidity
☐ Rest tremor

PROPOSED NINDS-NIMH DIAGNOSTIC CRITERIA FOR PARKINSON'S DISEASE PSYCHOSIS[2]
- Presence of at least 1 of the following symptoms:
  - Illusions
  - Hallucinations
  - False sense of presence
  - Delusions
- The above symptoms must be recurrent or continuous for at least 1 month and have occurred after the onset of PD
- PD psychosis may occur with or without:
  - Insight
  - Dementia
  - PD treatment
- Other potential medical and psychological causes of psychosis (eg, dementia with Lewy bodies, schizophrenia, schizoaffective disorder, delusional disorder, mood disorder with psychotic features, delirium) must be excluded before a diagnosis of PD psychosis is made

SYMPTOMS OF PD PSYCHOSIS
Problematic behaviors should be evaluated carefully to determine if they are in response to one or more of the following symptoms: (check all that apply)

Minor Phenomena[2-4]:
☐ Presence hallucinations: Feeling that someone is present when nobody is actually there
☐ Passage hallucinations: Sensation of a person or animal passing in the periphery
☐ Visual illusions: Misperception of a real stimulus

Hallucinations: Abnormal sensory perceptions when no real stimulus is present[2,3]
☐ Olfactory: Smelling nonexistent odors/scents
☐ Tactile: Feeling something touching or moving on the skin
☐ Visual: Seeing people, animals, or objects that others don't see
☐ Auditory: Hearing sounds, such as music or people conversing
☐ Gustatory: Tasting chemicals or strong flavors in food
☐ Somatic: Feeling as if a part of the body is changing or distorting

Delusions: Strong false beliefs despite evidence that the belief is not true[2,5]
☐ Persecutory: Belief that someone is trying to harm, steal from, or deceive them
☐ Jealousy: Belief that a spouse is being unfaithful
☐ Reference: Belief that an ordinary event has special or personal meaning (television program is speaking about them personally)

When/how often do these episodes happen per week? ______________________
Descriptions of symptoms/impact on resident: ______________________

ASSESSMENT

DIAGNOSTIC CODES RECOGNIZED FOR PD PSYCHOSIS[6]
Coding combinations that are recognized for PD psychosis include G20 (PD) plus one of the following ICD codes:
- F06.0 Psychotic disorder with hallucinations due to known physiological condition
- F06.2 Psychotic disorder with delusions due to known physiologic condition

WHEN INITIATING ANTIPSYCHOTIC THERAPY FOR A RESIDENT WITH PD PSYCHOSIS, CONSIDER THE FOLLOWING GUIDANCE FROM THE CENTERS FOR MEDICARE AND MEDICAID SERVICES[7]:

F757 and F758 address unnecessary drugs and psychotropic drugs
- To be considered necessary, an antipsychotic should:
  - Be clinically indicated to manage the symptoms of PD psychosis
  - Be appropriate for the resident's clinical conditions, age, and underlying causes of symptoms
  - Be selected based on assessment of relative benefit and risks to, and preferences and goals of, the individual resident

F605 addresses chemical restraints
- To avoid being considered a chemical restraint, an antipsychotic for PD psychosis should:
  - Be the standard of practice for PD psychosis
  - Be the least restrictive alternative to treat the resident's hallucinations and delusions associated with PD psychosis
  - Help the resident to function at the highest possible level

Coding must be to the highest level of specificity, and all coding decisions are ultimately the responsibility of each prescribing healthcare professional

This screening tool is provided by ACADIA for only educational purposes. This tool is an example and may be used as part of a full assessment to help determine if patients are experiencing hallucinations and delusions associated with PD psychosis. Please use your clinical judgment when diagnosing a patient with PD psychosis.

This tool has been approved by:

ascp

care • continuity • connection
GAPNA
Gerontological Advanced Practice Nurses Association

For additional information regarding PD psychosis, please visit www.moretoparkinsons.com.

References: 1. Postuma RB, Berg D, Stern M, et al. MDS clinical diagnostic criteria for Parkinson's disease. Mov Disord. 2015;30(12):1591-1601. doi:10.1002/mds.26424 2. 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. 3. Fénelon G, Soulas T, Zenasni F, Cleret de Langavant L. The changing face of Parkinson's disease-associated psychosis: a cross-sectional study based on the new NINDS-NIMH criteria. Mov Disord. 2010;25(6):763-766. 4. Kulick CV, Montgomery KM, Nirenberg MJ. Comprehensive identification of delusions and olfactory, tactile, gustatory, and minor hallucinations in Parkinson's disease psychosis. Parkinsonism Relat Disord. 2018;54:40-45. doi:10.1016/j.parkreldis.2018.04.008 5. 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. 6. World Health Organization. International Statistical Classification of Diseases and Related Health Problems, ICD-10 version: 2015. WHO website. http://apps.who.int/classifications/icd10/browse/2015/en. Accessed May 19, 2020. 7. US Centers for Medicare & Medicaid Services. State Operations Manual Pub 100-07. Appendix PP – Guidance to Surveyors for Long Term Care Facilities. Baltimore, MD: US Dept of Health and Human Services; 2017.

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Documenting

- First point of documentation is your assessment.
- Then daily documentation of the behaviors that the resident exhibits.
  - Include in the nurses notes:
    - Trigger of the behavior?
    - What occurred?
    - What intervention was done?
    - How did the resident respond to the intervention?
    - If the intervention didn't work what else was initiated?
    - Did it put the resident at risk for illness or injury?
    - Did it interfere with the resident's care
    - Did it interfere with the resident's participation in activities or socialization
    - Did it put others at risk for illness or injury?
    - Did it intrude on the privacy or activities of others
    - Did it disrupt the care or living environment?
    - Documentation that the physician and family were notified of new or worsening behaviors?
  - Daily documentation would also include the behavior tracking sheet

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Diseases and Behaviors

Disease	Behaviors	Items to document on
Parkinson's	Depression Anxiety (general anxiety, social phobia, obsessive-compulsive disorder (over conscientiousness, repetition, disturbing thoughts, and cleanliness obsessions) and panic disorder Medication related hallucinations (psychosis) Cognitive impairment (some dementia- slowed thinking and mild impairment of executive function [difficulties in planning and set-switching]) and motivational decline. Pseudobulbar Affect (PBA)	**HALLUCINATIONS** **DELUSIONS** **DIFFICULTY FALLING ASLEEP** **DIFFICULTY STAYING ASLEEP** **VERBAL AGGRESSION** **WANDERING** **PACING** **LACK OF INTEREST** **EXIT SEEKING** **ABNORMAL APPETITE** **GROWLING OR NON-VERBAL SOUNDS** **REPETATIVE CHANTING** **ATTENTION SEEKING** **Inappropriate uncontrollable CRYING/TEARFULNESS and / or LAUGHING** **SEEING/HEARING THINGS NOT THERE** **HOARDING** **PARANOIA** **RUMMAGING** **HITTING/KICKING** **BITING** **RESISTIVE TO CARE** **SELF INJURIOUS** **DESTRUCTIVE BEHAVIORS** **RESTLESSNES**
CVA / Stroke	Feelings of irritability, Forgetfulness, Carelessness or Confusion. Anger, Anxiety Depression Pseudobulbar Affect (PBA)	
Multiple Sclerosis	Grief & sadness Worry Fear Moodiness Irritability Anxiety Depression PBA Euphoria Sexual Disinhibition	
Traumatic Brain Injury	Decreased self-awareness Poor cognition / memory Executive dysfunction Anxiety Depression Lack of Empathy Irritability Socially Inappropriate Language PBA Striking out	

Behavior Tracking Form

Directions: Implement this form if the resident exhibits any of the behaviors listed below or any other behavior a. Add any other behaviors below. Document the number of tim

Month:	1			2			3			4			5			6			7			8			9			10			11			12			13			14			15			16			17		
	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N
Behaviors:																																																			
Hallucinations																																																			
Delusions																																																			
Repetitive chanting																																																			
Inappropriate Uncontrollable Crying/ tearfulness																																																			
Inappropriate Uncontrollable laughing																																																			
Uncontrollable Outbursts																																																			
Biting																																																			
Abnormal appetite																																																			
Seeing / hearing things																																																			
Difficulty falling asleep																																																			
Diffiulty staying asleep																																																			
Lack of Interest																																																			
Attention seeking																																																			
Growling or non-verbal																																																			
Paranoia																																																			
Hoarding																																																			
Verbal agression																																																			
Pacing																																																			
Restlessness																																																			
Destructive Behavior																																																			
Exit seeking																																																			

Care Planning

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LTC Nursing Care Plan – Parkinson's Disease (PD) Psychosis

Resident Name: ____________ Room #: ________ Physician: ____________ Date: ________

Concerns & Problems	Resident/Family Nursing Goals	Assessment Date	Nonpharmacologic and/or Pharmacologic Interventions	Responsible Discipline	Reevaluation	Team Initials
Symptoms: **Hallucinations**[1]: Eg, seeing or hearing things that are not there **Delusions**[1]: Eg, paranoia **Observable behaviors:**	**Resident/Family:** ☐ Stabilization, reduction, or remission of symptoms/episodes ☐ Decreased intensity of symptoms/episodes ☐ Increase/preserve social interaction **Nursing:** ☐ Engage in activities of daily living (ADLs) ☐ Participate in PT/OT/ST as ordered to promote overall functioning and psychosocial well-being ☐ Maintain safe environment ☐ Monitor risk for falls ☐ Other		**Assessment/systematic observation**[4]: ☐ Identify problems through assessments of symptoms ☐ Assess the history and consequences of symptoms ☐ Clarify who is negatively affected **Ascertain causes for symptoms**[4]: ☐ Resident has negative view of caregiver ☐ Resident doesn't understand intent of caregiver ☐ Resident is suffering from social isolation or sensory deprivation ☐ Resident misinterprets situations **Conduct intervention matching causes of symptoms, resident's habits and preferences, and current abilities**[2,3]: ☐ Music therapy ☐ Orientation training ☐ Exercise ☐ Art-cognitive activity **Intervention addressed to**[4]: ☐ Resident ☐ Environment ☐ Staff member ☐ Family Assess and reevaluate whether symptoms and quality of life have improved post-intervention[2] **Pharmacologic Interventions**[4]: ☐ Administer medications per order ☐ Observe for effectiveness of medications ☐ Observe for adverse reactions ☐ Missed/refused medications ☐ Consult healthcare provider for any drug/dose changes		**At 30 Days:** **At 60 Days:** **At 90 Days:** **Quarterly:** **PRN:**	

Under CMS F657 a **comprehensive care plan** must be developed within 7 days after completion of the comprehensive assessment. This care plan should be prepared by an interdisciplinary team that includes, but is not limited to, the attending physician, a registered nurse with responsibility for the resident, a nurse aide with responsibility for the resident, a member of food and nutrition services staff, and, to the extent practicable, the resident, the resident's representatives, and other appropriate staff or professionals in disciplines determined by the resident's needs or as requested by the resident. This care plan should be reviewed and revised by the interdisciplinary team after each assessment, including the comprehensive and quarterly review assessments.[5]

Additional notes:

This planning tool is provided by ACADIA for educational purposes only. Please use your clinical judgment for establishing a full comprehensive nursing care plan for patients with Parkinson's Disease Psychosis.

This tool has been approved by:

For additional information regarding PD psychosis, please visit www.moretoparkinsons.com.

References: 1. 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. 2. Cohen-Mansfield J. Nonpharmacologic interventions for psychotic symptoms in dementia. J Geriatr Psychiatry Neurol. 2003;16(4):219-224. 3. Chen R, Liu C, Lin M, et al. Non-pharmacological treatment reducing not only behavioral symptoms, but also psychotic symptoms of older adults with dementia: a prospective cohort study in Taiwan. Geriatr Gerontol Int. 2014;14(2):440-446. 4. Dunlop SR, Gerstenhaber M. Long-term care and nursing home issue. In: Menza M, Marsh L, eds. Psychiatric Issues in Parkinson's Disease: A Practical Guide. New York, NY: Informa Healthcare USA, Inc; 2009. 5. US Centers for Medicare & Medicaid Services. State Operations Manual Pub 100-07. Appendix PP - Guidance to Surveyors for Long Term Care Facilities. Baltimore, MD: US Dept of Health and Human Services; 2017.

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Panel Discussion Coding-Assessments/ Interventions / Care Planning

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Panel Members

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Summary

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Summary

- Educate your staff to recognize potential symptoms of PD Psychosis and dementia
- Initiate an assessment for new admissions or newly diagnosed residents with Parkinson's Disease
- Create a Policy and Procedure for documentation and care planning
- Train your staff in handling the behavior episodes as directed by the resident and family

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Resources

- https://www.michaeljfox.org/parkinsons-101?msclkid=d9c3b9792e36126b4ffae4ee579133d8
- https://www.mayoclinic.org/diseases-conditions/parkinsons-disease/symptoms-causes/syc-20376055
- https://www.nuplazid.com/hallucinations-and-delusions?utm_source=bing&utm_medium=cpc&utm_campaign=Nuplazid%20DTP%20Unbranded%202019%20-%20Condition_BMM&utm_term=+Parkinsons%20+information&utm_content=Info%20Broad&gclid=CIDas_GzjeUCFQPYDQodwVoGtQ&gclsrc=ds
- https://movementdisorders.ufhealth.org/2011/09/29/parkinsons-treatment-tips-on-psychosis-and-hallucinations/
- https://www.alz.org/alzheimers-dementia/what-is-dementia#:~:text=Dementia%20is%20a%20general%20term,help%20those%20affected%20by%20Alzheimer's.

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- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3994190/#:~:text=In%20addition%20to%20psychosis%2C%20the,dementia%20and%20mild%20cognitive%20impairment.
- https://morethancognition.neurologyreviews.com/wp-content/uploads/Understanding_the_Burden_The_Impact_and_Consequences_of_Dementia-Related_Psychosis_on_Patients_Caregivers_and_Society.pdf

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