

NEUROPSYCHIATRIC TREATMENT DECISION MATRIX

The following information is intended to aid practitioners and members of the Interdisciplinary Team (IDT) in the post-acute/long-term care setting when evaluating/treating a patient/resident with neuropsychiatric symptoms and/or behaviors.



*Empowering Pharmacists.
Transforming Aging.*

The information contained herein is designed to serve as a guide. The material is not intended to be exhaustive and is subject to change. The information is correct to the best of the knowledge of the developers. It is the responsibility of health care professionals to use their professional judgment for safe and effective therapy, compliance with governmental regulations and agency guidelines.



POSSIBLE NEUROPSYCHIATRIC-RELATED SYMPTOMS/INDICATIONS OF DISTRESS

Behavior Disturbances:

Agitation ⁺	Changes in eating	Wandering/Exit-seeking
Apathy	Changes in sleep	Isolation
Pacing	Hitting	Kicking
Crying	Cursing	Pushing

Mood Disturbances:

Elation /Euphoria	Irritability	Uncooperativeness
Anxiety	Fluctuations in mood	

Thought and Perceptual Disturbances*:

Hallucinations*	Thought disorders	Poor judgment
Delusions*	Paranoia	

+Agitation is a common symptom in patients with neuropsychiatric conditions and may accompany other symptoms.

*Often can coincide with psychosis and should be treated if severe distress or harmful to self or others.

IS THERE A NEUROPSYCHIATRIC CONDITION

There are many neuropsychiatric conditions. Is there appropriate documentation in the resident's medical record of a diagnosis or are these symptoms new and require additional evaluation?

Delirium	Psychosis	Dementia
Depression	Trauma	Schizophrenia
Anxiety/Anxiety Disorders	Post-Traumatic Stress Disorder	Pseudobulbar Affect
Bipolar Disorder		

DEFINITIONS

DELIRIUM (DSM-5)

- A. A disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to the environment).
- B. The disturbance develops over a short period of time (usually hours to a few days), represents a change from baseline attention and awareness, and tends to fluctuate in severity during the course of the day.
- C. An additional disturbance in cognition (i.e., memory deficit, disorientation, language, visuospatial ability, or perception).
- D. Disturbances listed in A and C are not better explained by another preexisting, established, or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal, such as coma.
- E. There is evidence from the history, physical examination, or laboratory findings that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal (i.e., due to drug of abuse or to a medication), or exposure to a toxin, or is due to multiple etiologies.

DEPRESSION (ADAPTED FROM DSM-5)

Depression is a common and serious mood disorder. Symptoms may include fatigue, sleep and appetite disturbances, agitation, and expressions of guilt, difficulty concentrating, apathy, withdrawal, and suicidal ideation. Depression is not a natural part of aging, however, older adults in the nursing home setting are more at risk than older adults in the community. Late life depression may be harder to identify due to a resident's cognitive impairment, loss of functional ability, the complexity of multiple chronic medical issues that compound the problem, and the loss of significant relationships and roles in their life.

ANXIETY AND ANXIETY DISORDERS (ADAPTED FROM DSM-5)

Anxiety is a common reaction to stress that involves occasional worry about circumstantial events. Anxiety disorders, however, could include symptoms such as excessive fear, intense anxiety, significant distress, and may cause debilitating symptoms. Importantly, anxiety may be a symptom of other disorders, such as depression and dementia in older adults, and care must be taken to ensure that other disorders are not inadvertently misdiagnosed as an anxiety disorder.



DEFINITIONS, continued

TRAUMA (SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION)

Trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being. Trauma-informed care is an approach to delivering care that involves understanding, recognizing and responding to the effects of all types of trauma. A trauma-informed approach to care delivery recognizes the widespread impact and signs and symptoms of trauma in residents, and incorporates knowledge about trauma into care plans, policies, procedures and practices to avoid re-traumatization.

POST-TRAUMATIC STRESS DISORDER (NATIONAL INSTITUTE OF MENTAL HEALTH)

Post-traumatic stress disorder occurs in some individuals who have encountered a shocking, scary, or dangerous situation. Symptoms usually begin early, within three months of the traumatic incident, but sometimes they begin years afterward. Symptoms must last more than a month and be severe enough to interfere with relationships or work to be considered PTSD.

BIPOLAR DISORDER (ADAPTED FROM NATIONAL ALLIANCE ON MENTAL ILLNESS)

Bipolar disorder is a mental disorder that causes dramatic shifts in a person’s mood or energy and may affect the ability to think clearly. People with bipolar experience high and low moods, which differ from the typical ups-and-downs most people experience. Symptoms and their severity can vary. A person with bipolar disorder may have extended periods without symptoms, or experience both extremes simultaneously or in rapid sequence.

PSYCHOSIS (ADAPTED FROM NATIONAL INSTITUTE OF MENTAL HEALTH)

During a period of psychosis, a person’s thoughts and perceptions are disturbed and the individual may have difficulty understanding what is real and what is not. Symptoms of psychosis include delusions (false beliefs) and hallucinations (seeing or hearing things that others do not see or hear). Other symptoms include incoherent or nonsense speech, and behavior that is inappropriate for the situation. A person in a psychotic episode may also experience depression, anxiety, sleep problems, social withdrawal, lack of motivation, and difficulty functioning overall.

SCHIZOPHRENIA (ADAPTED FROM DSM-5)

Symptoms of Schizophrenia include delusions, hallucinations, disorganized speech (e.g., frequent derailment or incoherence), grossly disorganized or catatonic behavior, and diminished expression or initiative. Schizophrenia must be diagnosed by a qualified practitioner, using evidence-based criteria and professional standards.

PSEUDOBULBAR AFFECT (NATIONAL LIBRARY OF MEDICINE)

Pseudobulbar affect (PBA) is characterized by uncontrolled crying or laughing which may be disproportionate or inappropriate to the social context. Thus, there is a disparity between the patient’s emotional expression and his or her emotional experience.

DEMENTIA (DSM-5)

Evidence of significant cognitive decline from a previous level of performance in one or more cognitive domains*:

Learning and memory	Language	Executive function
Perceptual-motor	Social cognition	Complex attention

- The cognitive deficits interfere with independence in everyday activities. At a minimum, assistance should be required with complex instrumental activities of daily living, such as paying bills or managing medications.
- The cognitive deficits do not occur exclusively in the context of a delirium.
- The cognitive deficits are not better explained by another mental disorder (e.g., major depressive disorder, schizophrenia).

Some causes of dementia or dementia-like symptoms can be treated and potentially reversed, including: infections, infectious diseases, metabolic problems, endocrine abnormalities, nutritional deficiencies, medication side effects, and intracranial processes.

Differentiating Between Common Forms of Dementia

	Onset	Potential Disturbances in					Notes
		Cognitive Effects	Mood	Behaviors	Motor	Thought/ Perception	
Alzheimer's Disease	Insidious and gradual progression	Early stage: Loss of memory, impaired learning and repeated questioning. Moderate to severe stage: Visuospatial and language deficits	Depression, apathy	Agitation, wandering and getting lost, impulsive	Gait disturbance, dysphagia, incontinence, myoclonus, seizures		
Vascular Dementia	Presentation based on extent and location of cerebrovascular event	Memory loss secondary to impairment in frontal/ executive function, forgetting current or past events, trouble learning new information	Changes in personality and mood, emotional flatness or excessive emotions, depressed	Impulsive, poor judgement	May exhibit parkinsonian features such as psychomotor slowing, problems with balance and walking		Stepwise decline
Lewy Body Dementia	Insidious and gradual progression	Fluctuating cognition with early changes in attention and executive function		Rapid eye movement sleep behavior disorder, insomnia, excessive daytime sleepiness	Falls, syncope and transient loss of consciousness, muscle rigidity, loss of coordination	Well-formed visual hallucinations	Malfunctions of the autonomic nervous systems which controls functions like sweating, blood pressure, heart rate, digestion and sexual response.
Frontotemporal Dementia	Insidious and gradual progression	Language variant: Loss of word memory, including speech production, word finding and comprehension, and grammar, disorganized or illogical ideas	Apathy, lack of empathy	Behavioral variant: Impaired social cognition and/ or executive abilities with symptoms such as disinhibition, compulsive behavior and hyperorality	Extrapyramidal symptoms including involuntary muscle contraction, tremors, stiff muscles, involuntary facial movements	Visual hallucinations	May be mistaken for depression, bipolar disorder or schizophrenia. Majority present between ages of 56 to 65
Parkinson's Disease with Dementia	Insidious and gradual progression Established Parkinson's disease of at least a year before onset of cognitive decline	Established Parkinson's disease of at least a year before onset of cognitive decline	Apathy, anxiety, depression	Rapid eye movement sleep behavior disorder and excessive daytime sleepiness. Personality changes		Visual hallucinations, Delusions	

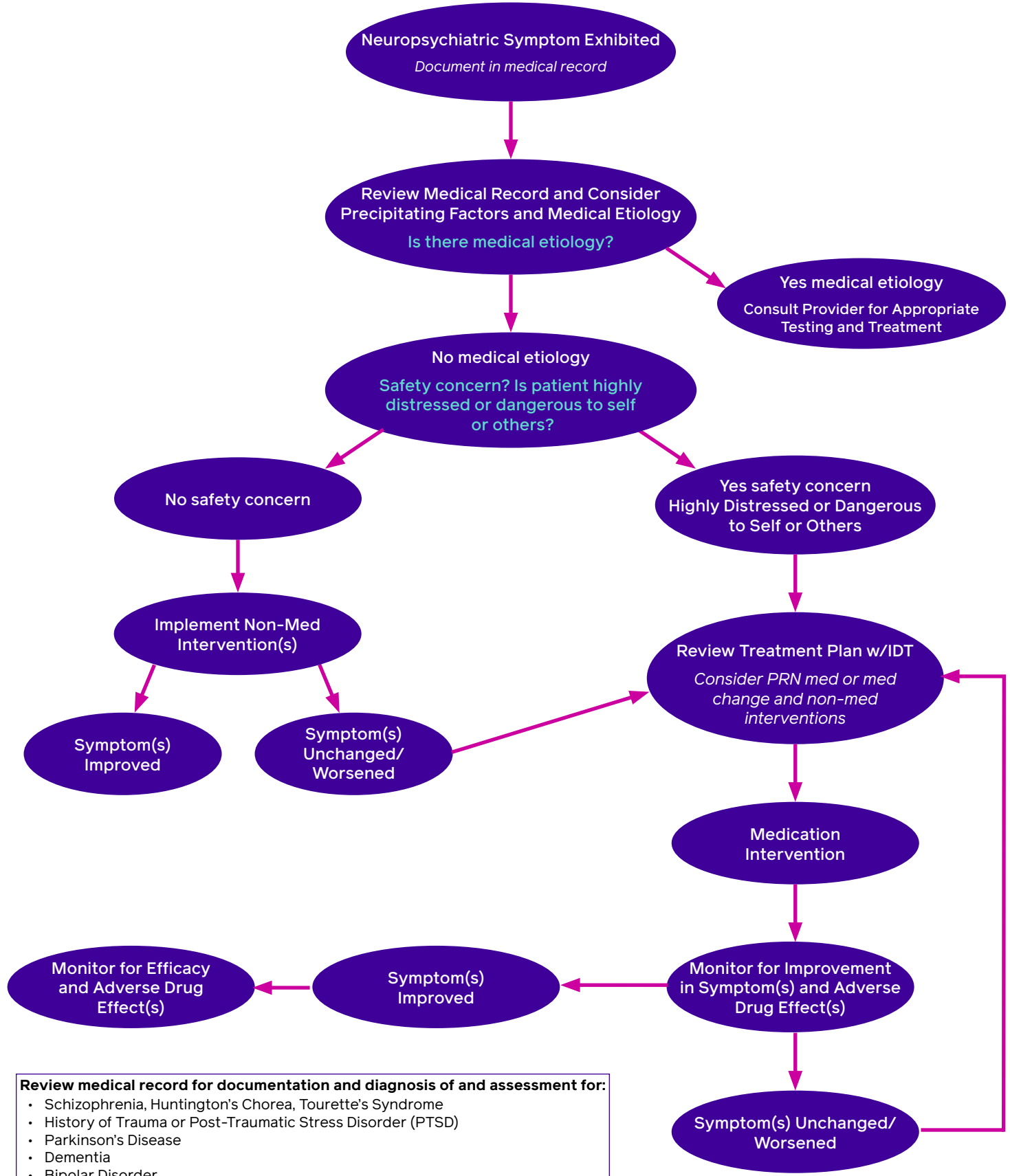
Adapted from: "in brief for healthcare professionals" Alzheimer's association, Issue 7, Differentiating Dementias www.alz.org/media/Documents/inbrief-differentiating-dementias.pdf
www.nia.nih.gov/health/infographics/understanding-different-types-dementia



CONSIDERATIONS FOR EVENTS/SITUATIONS THAT MAY CAUSE OR EXACERBATE NEUROPSYCHIATRIC SYMPTOMS

Event/Situation	Considerations
New Admission	<ul style="list-style-type: none"> • Review hospital-initiated antipsychotic • Review long-standing orders w/o dose adjustments for age • Review diagnostic history for NPS condition • Transition of care induced delirium
New NPS Diagnosis	<ul style="list-style-type: none"> • Confirm and/or provide documentation to support diagnosis • Non-pharmacologic interventions are documented and implemented • Care plan for efficacy/side effect/behavior monitoring documented
Medication New Start/ Recent Stop/ Dose Change	<ul style="list-style-type: none"> • Anticholinergic burden • Sedative/stimulatory effects • Document symptom improvement or worsening
Change in Mental Status	<ul style="list-style-type: none"> • Review recent medication changes • Review changes in med pass times • Review clinical conditions such as: infectious process, glucose control, eating habits, sleep quality, bowel patterns, dehydration, pain
Fall	<ul style="list-style-type: none"> • Review medication for side effects: dizziness, increased urination, orthostatic hypotension, confusion • Evaluate for motor neuropsychiatric symptoms: exit-seeking, exhaustion, from excessive pacing
Admit Hospice/ Palliative Care	<ul style="list-style-type: none"> • Review risk/benefits for use in terminal patient • Quality of life implications • Cumulative sedative burden of medications (i.e., opioids, benzodiazepines)

NEUROPSYCHIATRIC TREATMENT DECISION MATRIX



Review medical record for documentation and diagnosis of and assessment for:

- Schizophrenia, Huntington's Chorea, Tourette's Syndrome
- History of Trauma or Post-Traumatic Stress Disorder (PTSD)
- Parkinson's Disease
- Dementia
- Bipolar Disorder
- Traumatic Brain Injury
- Major Depressive Disorder
- Pseudobulbar Affect
- Anxiety Disorders



NON-PHARMACOLOGICAL INTERVENTIONS

Non-pharmacological interventions refer to individualized approaches to care that do not involve medications, generally directed towards stabilizing and/or improving a patient's mental, physical and psychosocial well-being.

While there may be situations where a pharmacological intervention is indicated first, these situations do not negate the obligation of the nursing home to also develop and implement appropriate non-pharmacological interventions.

Non-pharmacological interventions should be attempted, when appropriate (consider the safety of patient and others), prior to or in conjunction with pharmacological interventions. Non-pharmacological interventions can decrease anxiety, agitation, physical aggression, and improve a patient's mental, physical or psycho-social well-being.

Non-pharmacological interventions should be patient-specific and based on abilities, customary daily routines, life-long patterns, interests, preferences and choices. These interventions should be identified in the patient's care plan, prior to an acute situation requiring intervention. Success or failure of attempted non-pharmacological interventions should be documented in medical record.

Social Contact

Animal-Assisted Therapy	Patient/Group Activities
One to One Interactions	Personal Relationship

Structured Activities

Games	Reminiscence Therapy
Singing	Occupation-Related Activities
Physical Activities	

Environmental Interventions

Wandering Areas	Reduced Stimulation (light/noise)
Nature Enhanced Environments	Reassuring Safety

Medical/Nursing Care Interventions

Sleep	Thirst
Toileting	Redirection/Reorientation
Pain Management	Continuity of Care and Staff
Hunger	

Sensory Interventions

Smell (Essential oils)	Sound (Music, white noise, decrease noise)
Touch (Hand massage)	Light (dimming)

POSSIBLE ADVERSE DRUG REACTIONS

(Refer to drug monograph for complete listing of drug side effects)

Anticholinergic Symptoms	Hypotension
Anxiety	Rashes
Cardiac Abnormalities	Sedation/Drowsiness
Confusion	Sweating
Delirium	Tardive Dyskinesia
Dizziness	Urinary Retention
Headaches	Visual Disturbances

*This tool was developed with the supported of:
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Tardive dyskinesia (TD) is a movement disorder that causes a range of repetitive muscle movements in the face, neck, arms and legs. It is sometimes associated with conditions such as schizophrenia and occurs as a primary side effect of certain medications, particularly antipsychotics. It can be a permanent condition after long term antipsychotic use. Normal functioning is challenging and quality of life for individuals with TD is diminished.

Symptoms of TD can include:

- Involuntary Jerking of hands and legs
- Involuntary tongue movements and lip smacking
- Eye blinking and grimacing
- Difficulty swallowing
- Neck twisting

TD symptoms typically occur after years of taking antipsychotic medications, but can also emerge within a few months. TD can also be related to prolonged use of medications for nausea, and medications that treat neurological disorders (i.e. Parkinson's Disease).