

Steve Sisolak  
*Governor*



Richard Whitley  
*Director*

State of Nevada  
Department of Health and  
Human Services

---

Treatment Considerations for  
Patients with Neurocognitive Disorders

Leon Ravin, MD  
Statewide Psychiatric Medical Director

[lravin@health.nv.gov](mailto:lravin@health.nv.gov)

2020





# Acronyms and Definitions

**Neurocognitive disorders (NCDs)** encompasses the group of disorders in which the primary clinical deficit is in cognitive function, and that are acquired rather than developmental.

**Diagnostic and Statistical Manual of Mental Disorders (DSM)** was developed by the American Psychiatric Association provides diagnostic criteria for mental disorders.

DSM-5 has been adopted in 2013 and is the most current classification of mental disorders used in the United States.





# NCDs Overview

DSM-5 describes the following NCD diagnoses:

- Delirium
- Major and Mild Neurocognitive Disorders with subcategories of:
  - Due to Alzheimer's disease
  - Due to Frontotemporal Lobar Degeneration
  - With Lewy Bodies
  - Vascular NCD
  - Due to Traumatic Brain Injury
  - Due to HIV
  - Due to Parkinson's disease
  - Due to Huntington's disease
  - Due to Another Medical Condition
  - Due to Multiple Etiologies
  - Unspecified





# Major Neurocognitive Disorder

Major NCD presents with evidence of significant cognitive decline from a previous level of performance. The evidence may be based on individual or professional observations or documented standardized testing.

The cognitive deficits interfere with independence in everyday activities.

These deficits are not occurring exclusively in the context of a delirium and are not better explained by another mental disorder.





# Minor Neurocognitive Disorder

Minor NCD presents with evidence of significant cognitive decline from a previous level of performance. The evidence may be based on individual or professional observations or documented standardized testing.

The cognitive deficits do not interfere with independence in everyday activities.

These deficits are not occurring exclusively in the context of a delirium and are not better explained by another mental disorder.





# Prevalence

Overall prevalence estimates for dementia (Major NCD) are approximately 10% at age 65 and as high as 30% by age 85 years.



# Major NCD due to Alzheimer's Disease

## Development and Course

U.S. census data estimates suggest that approximately 7% of individuals diagnosed with Alzheimer's disease are between ages 65 and 74 years, 53% are between ages 75 and 84 years, and 40% are 85 years or older.

The mean duration of survival after diagnosis is approximately 10 years. However, some individuals can live with the disease for as long as 20 years.

Late-stage individuals are eventually mute and bedbound.

Death most commonly results from aspiration in those who survive through the full course.





# Considerations for treatment of NCDs

Treat underlying conditions (i.e. HTN, HIV)

Use of medications to improve cognitive functioning is mildly effective in improving cognition and functional ability in NCD due to Alzheimer's disease, but does not improve survival.

Antianxiety, antidepressant, and antipsychotic medications may improve symptoms of insomnia, depression, delusions or hallucinations in patients with NCD. These medications may worsen cognitive symptoms of NCD or increase risk of dying.







# Inpatient Hospitalizations of Patients with NCDs

It is estimated that majority of hospitalizations for general medical conditions, such as infections, among patients with advanced dementia are avoidable, as they could be treated at the nursing homes.

Hospitalizations could also be reduced with implementation of advanced healthcare directives.

Emergency psychiatric care is usually due to:

- Depression with suicidal behavior, or
- Agitation and aggression due to the development of delirium, or
- Secondary to hallucinations and delusions with a reported prevalence of 30 percent in patients with moderate to severe Alzheimer's disease.





# Agitation or Aggression in Patients with NCDs

## Common non-psychiatric causes:

- Medication side effects, both prescribed and over the counter;
- Pain;
- Delirium, an acute confusional state. The most common causes of delirium are medical illnesses such as infections, heart disease, substance intoxication, and medication side effects;
- Sleep problems;
- Misperception or misunderstanding due to poor vision, hearing impairment, language or memory deficits.



# Involuntary Psychiatric Hospitalization of Patients with NCDs in Nevada

- Regulated by NRS Chapter 433A.
- Eligible person definition
  - CRITERIA FOR MENTAL HEALTH CRISIS, NRS 433A.115: As used in NRS 433A.120 to 433A.330, inclusive, unless the context otherwise requires, a "person in a mental health crisis" means any person 1) who has a mental illness; and 2) whose capacity to exercise self control, judgment and discretion in the conduct of a person's affairs and social relations or to care for his or her personal needs is diminished, as a result of the mental illness, to the extent that the person presents a substantial likelihood of serious harm to himself or herself or others, but DOES NOT INCLUDE any person in whom that capacity is diminished by epilepsy, intellectual disability, dementia, delirium, brief periods of intoxication caused by alcohol or drugs or dependence upon or addiction to alcohol or drugs unless a mental illness that can be diagnosed is also present which contributes to the diminished capacity of the person.



# Involuntary Psychiatric Hospitalization of Patients with NCDs

- Purpose of admission: To treat acute psychiatric symptoms of mental illness co-morbid with NCD.
- Treating patients with NCDs in unspecialized acute inpatient psychiatric settings may raise concerns of
  - Worsening of patient's behavior due to new and overly stimulating environment;
  - Being assaulted or exploited by other patients because of impaired cognition, judgment, and poor boundaries;
  - Lack of environmental, behavioral, and other nonpharmacologic therapies that can be effective in patients with NCDs and, when appropriate, are preferred over medications, which have a high rate of adverse effects;
  - Lack of accommodations to address patients' general medical needs, such as walkers, catheters, oxygen, IV fluids and medications.



# Prescribing Psychotropic Medications to Patients with NCDs

Special consideration in treatment of psychiatric symptoms with medications in patients with NCDs include:

- Antianxiety medications
  - Benzodiazepine side effects include worsening cognition and gait leading to further confusion and fall risk. Also the risk of potential paradoxical agitation.
  - Antihistamines and other sedatives are discouraged because of high rates of side effects, particularly anticholinergic effects, due to worsening of cognitive symptoms and medical complications such as heart problems, urinary retention and constipation in patients with NCDs.
- Antipsychotic medications may increase mortality and are not approved for the treatment of behavioral disorders in patients with dementia by the FDA. They should not be used routinely to treat neuropsychiatric symptoms of dementia.





# Access to Care for Patients with NCDs in Nevada

Nevada relies exclusively on other states to train physicians in geriatric psychiatry.

State-employed physicians in DHHS do not get pay incentives for completing specialized training in psychiatric subspecialties including

- Geriatric Psychiatry
- Child Psychiatry
- Forensic Psychiatry
- Addictions Psychiatry



# S.B. 241 – Senator Hardy

## February 27, 2019

- Proposed establishing additional compensation for sub-specialty board certification for state-employed psychiatrists comparable to the existent salary increase for board certification in general adult psychiatry.

<https://www.leg.state.nv.us/App/NELIS/REL/80th2019/Bill/6407/Text>

- Unanimously passed by the Senate Committee on Legislative Operations and Elections on April 8, 2019.
- Re-referred to Committee on Finance on April 10, 2019.
- No further action.



## References

- Diagnostic and statistical manual of mental disorders – 5<sup>th</sup> ed. 2013 American Psychiatric Association
- Kaplan and Sadock's Synopsis of Psychiatry, 11<sup>th</sup> edition. 2015.
- Hospital transfers of nursing home residents with advanced dementia. Givens JL, Selby K, Goldfeld KS, Mitchell SL. J Am Geriatr Soc. 2012 May;60(5):905-9. Epub 2012 Mar 16
- The spectrum of behavioral changes in Alzheimer's disease. Mega MS, Cummings JL, Fiorello T, Gornbein J. Neurology. 1996;46(1):130
- [https://www.uptodate.com/contents/management-of-neuropsychiatric-symptoms-of-dementia?search=dementia&source=search\\_result&selectedTitle=4~150&usage\\_type=default&display\\_rank=4#H270370739](https://www.uptodate.com/contents/management-of-neuropsychiatric-symptoms-of-dementia?search=dementia&source=search_result&selectedTitle=4~150&usage_type=default&display_rank=4#H270370739)
- <https://www.leg.state.nv.us/nrs/nrs-433a.html#NRS433ASec0175>
- <http://dpbh.nv.gov/uploadedFiles/dpbhnavgov/content/Resources/Mental-Health-Crisis-Hold-Packet-Adult-2020.pdf>
- <https://www.leg.state.nv.us/App/NELIS/REL/80th2019/Bill/6407/Text>







# Questions?





# Contact Information

**Leon Ravin, MD**

Statewide Psychiatric Medical Director, DPBH, State of Nevada

[lravin@health.nv.gov](mailto:lravin@health.nv.gov)

702-486-4400

