



Dazed and Confused: Coding Dementia, Encephalopathy and Delirium Diagnoses

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Presenter's Bio

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Learning Objectives

1. Definitions and types of Dementia
2. Definitions and types of Encephalopathy
3. Definitions of delirium, confusion and AMS (altered mental status)
4. Review Coding guidelines and conventions including Coding Clinic and the Official Coding Guidelines
5. Medications/treatments associated with dementia, encephalopathy and delirium



Dementia





What is Dementia?

Dementia refers to a decline in cognitive functioning to the point where it interferes with daily life. Dementia is a nonspecific diagnosis that includes a large range of symptoms and manifestations.

Symptoms of Dementia



The symptoms of dementia can vary and may include:

- Experiencing memory loss, poor judgment, and confusion
- Difficulty speaking, understanding and expressing thoughts, or reading and writing
- Wandering and getting lost in a familiar neighborhood
- Trouble handling money responsibly and paying bills
- Repeating questions
- Using unusual words to refer to familiar objects
- Taking longer to complete normal daily tasks
- Losing interest in normal daily activities or events
- Hallucinating or experiencing delusions or paranoia
- Acting impulsively
- Not caring about other people's feelings
- Losing balance and problems with movement



Key Facts

- Dementia is a syndrome in which there is deterioration in cognitive function beyond what might be expected from the usual consequences of biological aging.
- Although dementia mainly affects older people, it is not an inevitable consequence of aging.
- Currently more than 55 million people live with dementia worldwide, and there are nearly 10 million new cases every year.
- Dementia results from a variety of diseases and injuries that primarily or secondarily affect the brain. Alzheimer's disease is the most common form of dementia and may contribute to 60-70% of cases.
- Dementia is currently the seventh leading cause of death among all diseases and one of the major causes of disability and dependency among older people globally.
- Dementia has physical, psychological, social and economic impacts, not only for people living with dementia, but also for their careers, families and society at large.



All Types of Dementia

ICD-10-CM index

Dementia (degenerative (primary)) (old age) (persisting)

- ☐ 1. With (e.g., Lewy bodies, Parkinson's disease...)
- ☐ 2. Alcoholic
- ☐ 3. Alzheimer's type (coded as Alzheimer's disease)
- ☐ 4. Arteriosclerotic (coded as vascular dementia)
- ☐ 5. Atypical, Alzheimer's type
- ☐ 6. Congenital (coded as intellectual disability)
- ☐ 7. Frontal (lobe)
- ☐ 8. Frontotemporal
- ☐ 9. In (due to) (e.g., epilepsy, hypercalcemia, neurosyphilis...)
- ☐ A. Infantile, infantilis
- ☐ B. Lewy body(ies)
- ☐ C. Multi-infarct (coded as vascular dementia)
- ☐ D. Paralytica, paralytic (syphilitic)
- ☐ E. Paretic
- ☐ F. Praecox (coded as schizophrenia)
- ☐ G. Presenile
- ☐ H. Primary degenerative
- ☐ I. Progressive, syphilitic
- ☐ J. Senile
- ☐ K. Vascular (acute onset) (mixed) (multi-infarct) (subcortical)
- ☐ L. Other/unspecified



Common Types of Dementia

- ✓ Alzheimer's ICD-10-CM G30.0-G30.9 with F02.80-F02.81
- ✓ Frontal or frontotemporal ICD-10-CM G31.09 with F02.80-F02.81
- ✓ Multi-infarct, arteriosclerotic or vascular ICD-10-CM F01.50-F01.51
- ✓ Presenile or senile ICD-10-CM F03.90-F03.91
- ✓ Parkinson's ICD-10-CM G20 with F02.80-F02.81
- ✓ Lewy Body ICD-10-CM G31.83 with F02.80-F02.81
- ✓ In HIV disease ICD-10-CM B20 with F02.80-F02.81



Alzheimer's Dementia

ICD-10-CM G30.0

Alzheimer's disease, the most common form of dementia, is caused by the destruction of the subcortical white matter of the brain through the development of neurofibrillary tangles and amyloid plaques that eventually lead to death of the nerve cells. It is characterized by increasing loss of intellectual functioning beginning with minor memory loss and eventually resulting in total loss of ability to function.

Alzheimer's Dementia, Continued



G30.0 Alzheimer's disease with early onset

This is a rare form of Alzheimer's with clinical presentation of symptoms as early as 30 years old but most often presenting between 40 and 50 years old. Myoclonus may also be a distinguishing factor as it is often seen in early onset and not late onset Alzheimer's.

G30.1 Alzheimer' disease with late onset

This is the most common form with clinical presentation of symptoms usually occurring after the age of 65. Causes of late onset Alzheimer's have not specifically been identified although it is thought that a combination of environmental and genetic factors may play a role in its development.

G30.8 Other Alzheimer's disease

This code includes any specified type of Alzheimer's that is not documented as early onset or late onset.

G30.9 Alzheimer's disease, unspecified

The etiology cannot be identified or the type of Alzheimer's is not stated in the documentation.

Coding Clinic



Alzheimer's disease and dementia

ICD-10-CM/PCS Coding Clinic, First Quarter ICD-10 2017 Pages: 43-44 Effective with discharges: March 13, 2017

Question:

How is Alzheimer's disease coded when provider does not document dementia? The ICD-10-CM index directs the Coder to use G30.9 Alzheimer's disease and F02.80 Dementia in other diseases classified elsewhere without behavioral disturbance. Is this correct?

Answer:

Since dementia is inherent to Alzheimer's disease, it does not need to be documented by the provider separately. The dementia is a manifestation of Alzheimer's and should be coded. The G30.9 would be sequenced first, followed by the F02.80 (or F02.81 if patient had behavioral disturbance).

See OCG 1.A.13 regarding guidelines on coding manifestations



Dementia in Other Diseases Classified Elsewhere F02.80-F02.81



**F02.80 Dementia in other diseases
classified elsewhere without
behavioral disturbance**



**F02.81 Dementia in other diseases
classified elsewhere with behavioral
disturbance**

Dementia in other diseases classified elsewhere is coded based on the presence or absence of behavioral disturbances. In some patients, the behavioral disturbances can be more challenging to manage than the cognitive losses. Hallucinations and paranoia, aggression and agitation, and depression are common behavioral and/or psychological symptoms that can affect a dementia patient.





Parkinson's Dementia, Parkinsonism & Lewy Body Dementia



Definitions

- **Parkinson's disease (G20):** Parkinson's disease is a progressive disorder of the nervous system, which typically affects middle-aged adults. It is associated with degeneration of the basal ganglia and a deficiency of the neurotransmitter dopamine. Parkinson's disease affects movement, and tremors are a well-known sign of the disease.
- **Parkinsonism (G20)** refers to symptoms characteristic of Parkinson's disease (e.g., slow movements and tremors), regardless of the cause, and is typically caused by another condition or external agent, such as drugs.
- **Lewy body Dementia (G31.83):** Lewy bodies are protein deposits that form in the nerve cells of the brain causing the nerve cells to die. Lewy bodies can be found in patients with Parkinson's disease and Alzheimer's disease making diagnosis difficult. Certain characteristics of Lewy body dementia not associated with Alzheimer's disease may include the inability to copy or draw, fluctuation between coherency and incoherency (especially in the early stages), visual hallucinations, and minimal issues with memory upon initial onset.



Coding Parkinson's with Dementia

- Parkinson's with dementia is coded with G20 and F02.8- (with or without behavioral disturbance)
- Dementia with parkinsonism is coded with G31.83 and F02.8- (with or without behavioral disturbance)
- Lewy body Dementia is coded with G31.83 and F02.8- (with or without behavioral disturbance)



ICD-10-CM Coding Index

Dementia (degenerative (primary)) (old age) (persisting) F03.90

with

aggressive behavior F03.91

behavioral disturbance F03.91

combative behavior F03.91

Lewy bodies G31.83 [F02.80]

with behavioral disturbance G31.83 [F02.81]

Parkinsonism G31.83 [F02.80]

with behavioral disturbance G31.83 [F02.81]

Parkinson's disease G20 [F02.80]

with behavioral disturbance G20 [F02.81]

violent behavior F03.91



Coding Clinic

Parkinson's dementia versus Parkinsonism

ICD-10-CM/PCS Coding Clinic, **Second Quarter ICD-10 2017** Pages: 7-8 Effective with discharges: May 17, 2017

Question: Patient is admitted with Parkinson's disease and aggressive behavior. There is some confusion as to whether to use G20 Parkinson's or G31.83 Dementia with Lewy bodies. What is the code assignment for Parkinson's dementia with aggressive behavior?

Answer: Assign codes G20 Parkinson's disease and F02.81 Dementia in other disease classified elsewhere with behavioral disturbance.



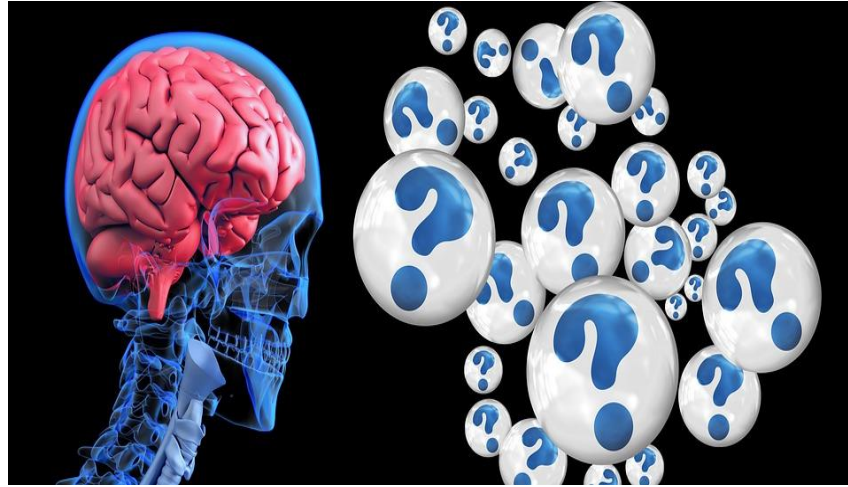
Coding Clinic

Lewy body dementia

ICD-10-CM/PCS Coding Clinic, **Fourth Quarter ICD-10 2016** Page: 141 Effective with discharges: October 1, 2016

Question: How do you code Lewy body dementia?

Answer: Code both G31.83 Lewy body dementia and F02.8- Dementia in diseases classified elsewhere. There is a coding instructional note under F02.8- that states “code first the underlying physiological condition, such as”. The G31.83 is the underlying condition and should be sequenced first.



Senile and Presenile Dementia





What is Senile or Presenile Dementia?

Senile dementia is the mental deterioration (loss of intellectual ability) that is associated with or the characteristics of old age.

Presenile dementia is dementia beginning in middle age and progressing rapidly.



Coding Senile/Presenile Dementia

F03.90 Unspecified dementia without behavioral disturbance
or

F03.91 Unspecified dementia with behavioral disturbance

Included in code F03:

Presenile dementia NOS

Presenile psychosis NOS

Primary degenerative dementia NOS

Senile dementia NOS

Senile dementia depressed or paranoid type

Senile psychosis NOS



Multi-Infarct Dementia





What is Multi-Infarct Dementia?

Multi-infarct dementia (MID) is a **type of vascular dementia**. It occurs when a series of small strokes causes a loss of brain function. A stroke, or brain infarct, occurs when the blood flow to any part of the brain is interrupted or blocked.

Vascular dementia is the second most common form of dementia after Alzheimer's dementia. It can also coexist with dementia in Alzheimer's disease, dementia with Lewy bodies, or other forms of dementia making differentiating between the types very difficult.

Coding Multi-Infarct Dementia



F01.5- Vascular dementia

Vascular dementia, also referred to as arteriosclerotic dementia or multi-infarct dementia (MID), has varying etiologies but is largely attributed to three vascular related mechanisms: small vessel disease, multiple cortical infarcts, or single strategic infarcts. Measured by the severity of cognitive function, the type of insult and the area in the brain that is involved impacts how the disease manifests in each patient. In small vessel disease, cognitive decline may progress slowly and may only impact memory and not daily functioning, while a single strategic infarct can cause immediate and substantial cognitive decline and drastic changes in activities of daily living.

- **F01.50** **Vascular dementia without behavioral disturbance**
or
- **F01.51** **Vascular dementia with behavioral disturbance**

Vascular dementia is classified based on the presence or absence of behavioral disturbances. Agitation is the most common behavioral disturbance often exhibited in the form of aggression, combativeness, pacing, and wandering. Hallucinations and paranoia are also common. Behavioral disturbances occur typically in the evening and may be referred to as sundowning.

* When coding multi-infarct (vascular dementia), there is a coding note:
“Code first the underlying physiological condition or sequelae of cerebrovascular disease”.



Frontal or Frontotemporal Dementia



What is Frontal or Frontotemporal Dementia?

Frontotemporal dementia is **an umbrella term for a group of brain disorders that primarily affect the frontal and temporal lobes of the brain**. These areas of the brain are generally associated with personality, behavior and language. In frontotemporal dementia, portions of these lobes shrink (atrophy).



Coding Frontal or Frontotemporal Dementia

G31.09 Other frontotemporal dementia

Add code:

- F02.80 Dementia in other diseases classified elsewhere without behavioral disturbance (manifestation)
- F02.81 Dementia in other disease classified elsewhere with behavioral disturbance (manifestation)



Dementia in HIV Disease



What is HIV Dementia?

HIV-associated dementia **occurs when the HIV virus spreads to the brain**. Symptoms of HIV-associated dementia include loss of memory, difficulty thinking, concentrating, and or speaking clearly, lack of interest in activities and gradual loss of motor skills.



Coding HIV with Dementia

Sequence the HIV first:

- B20 Human immunodeficiency virus

The dementia would be coded secondary:

- F02.80 Dementia in other diseases classified elsewhere without behavioral disturbance

or

- F02.81 Dementia in other diseases classified elsewhere with behavioral disturbance



Coding Scenario

Question:

A 70-year-old male presents with increased confusion and altered mental status. Patient is agitated and aggressive. Patient has known Alzheimer's disease. Final diagnosis is Alzheimer's dementia. How would this be coded?

Answer:

- G30.9 Alzheimer's disease, unspecified
- F02.81 Dementia in other diseases classified elsewhere with behavioral disturbance.

*The G30.9 would be used since the onset of the Alzheimer's is not documented (early vs. late).

*The F02.81 would be used in this case due to the agitation and aggression.



Encephalopathy





What is Encephalopathy?

Encephalopathy is a general term used to describe any disorder of cerebral function. It is a very broad term and, in most cases, will be preceded by various terms describing the reason, cause, or special conditions leading to the brain disorder.

Symptoms of Encephalopathy



The most common symptom of encephalopathy is a change in mental state, with problems such as:

- Loss of memory
- Reduced ability to think clearly or concentrate
- Drowsiness
- Changes in personality such as irritability, aggression, impulsive behavior or having suicidal thoughts

Some people might also have:

- Involuntary muscle twitching
- Difficulty speaking
- Difficulty swallowing
- Unusual eye movements
- Tremor
- Muscle weakness
- Seizures
- Dementia
- Loss of consciousness

Types of Encephalopathy



- **Anoxic encephalopathy** refers to brain damage due to lack of oxygen. This type of encephalopathy is assigned to **G93.1, Anoxic brain damage, not elsewhere classified**.
- **Alcoholic encephalopathy** is a serious complication of alcoholic liver disease usually caused by excessive drinking for several years. It results in a loss of specific brain function (damage of brain tissue) caused by a thiamine deficiency. Alcoholic encephalopathy is classified to **G31.2, Degeneration of nervous system due to alcohol**.
- **Hepatic encephalopathy** is brain damage due to liver disease, and it is classified to code **K72.90, Hepatic failure, unspecified, without coma**, when the etiology is not specified or is unknown. At the Index entry "Failure, hepatic," there are subentries for codes to specifically describe different etiologies and for hepatic failure with or without coma. Hepatic encephalopathy is not synonymous with hepatic coma. The default for hepatic failure is without coma.
- **Metabolic encephalopathy** is temporary or permanent damage to the brain due to lack of glucose, oxygen, or other metabolic agent, or caused by organ dysfunction. Symptoms include an altered state of consciousness, usually characterized as delirium, confusion, or agitation, and changes in behavior or personality. There may also be muscle stiffness or rigidity, tremor, stupor, or coma. Symptoms can develop quickly and may resolve when the condition is reversed. Assign code **G93.41, Metabolic encephalopathy**, for this condition. Code G93.41 also includes septic encephalopathy.

Types of Encephalopathy Continued



- **Toxic encephalopathy** is a degenerative neurological disorder caused by exposure to toxic substances or as an adverse effect of medication. It is characterized by an altered mental status, and symptoms can include memory loss, small personality changes, lack of concentration, involuntary movements, nausea, fatigue, seizures, arm strength problems, and depression. ICD-10-CM classifies this unspecified toxic encephalopathy to code G92.9, while toxic metabolic encephalopathy is classified to **G92.8, Other toxic encephalopathy**. The appropriate reporting and sequencing of toxic encephalopathy due to drugs is based on whether the drug toxicity qualifies as an adverse effect or poisoning. When coding an adverse effect of a drug that has been correctly prescribed and properly administered, assign the appropriate code for the nature of the adverse effect followed by the appropriate code for the adverse effect of the drug (T36-T50). The code for the drug will have a fifth or sixth character 5 (e.g., T36.0x5-) to indicate adverse effect. If the toxic encephalopathy is due to a poisoning from a toxic agent, a code from categories T51-T65 is assigned first to identify the causative toxic agent. Code G92.9 is assigned for unspecified toxic encephalopathy.
- **Wernicke's encephalopathy** involves damage to the central nervous system and the peripheral nervous system and is caused by disorders of the liver such as cirrhosis, hepatitis, malnutrition, and conditions in which blood circulation bypasses the liver entirely. The symptoms can range from mild to severe and consist of various neurological symptoms including changes in consciousness, reflexes, and behavior. ICD-10-CM classifies this condition to **E51.2, Wernicke's encephalopathy**.



Types of Encephalopathy, Continued

- **Encephalopathy associated with cerebrovascular accident and stroke** is not inherent to the conditions; assign code **G93.49, Other encephalopathy**, in addition to the codes for cerebrovascular accident and stroke. Please note code **G93.49, Other encephalopathy**, is assigned when encephalopathy is linked to a condition (e.g., encephalopathy due to urinary tract infection) but a specific encephalopathy (e.g., metabolic, toxic, or hypertensive) is not documented.
- **Hypertensive encephalopathy** is assigned to code **I67.4 Hypertensive encephalopathy**. This refers to transient neurologic symptoms which occur due to elevated blood pressure.
- **Unspecified encephalopathy** is assigned to code **G93.40, Encephalopathy, unspecified**.

Coding Clinic



Encephalopathy due to sepsis

ICD-10-CM/PCS Coding Clinic, Second Quarter ICD-10 2017 Pages: 8-9 Effective with discharges: May 17, 2017

Question:

How is sepsis associated encephalopathy coded?

Answer:

G93.41 Metabolic encephalopathy is used for septic encephalopathy. Per the coding Index: Encephalopathy (acute) septic G93.41

When the type of encephalopathy is documented, assign the more specific code. Use encephalopathy, unspecified G93.40 if the type of encephalopathy isn't documented.

Coding Clinic



Toxic metabolic encephalopathy due to hepatic encephalopathy clarification

ICD-10-CM/PCS Coding Clinic, **First Quarter ICD-10 2022** Pages: 52-53 Effective with discharges: March 18, 2022

Question: How do you code toxic metabolic encephalopathy due to hepatic encephalopathy if no toxic substance or medication is documented?

Answer:

- K72.90 Hepatic failure, unspecified without coma
- G92.8 Toxic metabolic encephalopathy

The “toxic” in this case refers to the toxins generated from the body instead of outside toxins. The toxic metabolic encephalopathy code has a “code first” directive. In this case the underlying cause is the hepatic encephalopathy.



Coding Scenario

Question: **45-year-old** patient has been on antibiotics for UTI. Developed AMS and was admitted to the hospital. Final diagnosis was toxic encephalopathy due to Ciprofloxacin. How would this be coded?

Answer:

- G92.8 Other toxic encephalopathy
- T36.8X5A Adverse effect of other systemic antibiotics, initial encounter



Delirium





What is Delirium?

Delirium is a serious disturbance in mental abilities that results in confused thinking and reduced awareness of the environment.



Symptoms of Delirium

- Seeing things that don't exist (hallucinations)
- Restlessness, agitation or combative behavior.
- Calling out, moaning or making other sounds.
- Being quiet and withdrawn — especially in older adults.
- Slowed movement or lethargy.
- Disturbed sleep habits.
- Reversal of night-day sleep-wake cycle.



Types of Delirium

- ✓ Mixed origin (dementia and other) ICD-10-CM **F05**
Delirium due to known physiological condition
- ✓ Postprocedural ICD-10-CM **F05** *Delirium due to known physiological condition*
- ✓ Puerperal ICD-10-CM **F05** *Delirium due to known physiological condition*
- ✓ Superimposed on dementia ICD-10-CM **F05** *Delirium due to known physiological condition*
- ✓ Tremens ICD-10-CM **F10.231** *Alcohol dependence with withdrawal delirium*
- ✓ Other, unspecified ICD-10—CM **R41.0** *Disorientation, unspecified*



Coding Clinic

Delirium of unknown etiology

ICD-10-CM/PCS Coding Clinic, Second Quarter ICD-10 2019 Page:
34 Effective with discharges: June 21, 2019

Question: How do you code delirium of unclear cause? Code F05 is for delirium due to known physiological condition.

Answer: R41.0 Disorientation, unspecified would be the correct code for delirium of unknown cause.



AMS (Altered Mental Status) & Confusion



What is AMS (Altered Mental Status)?

Significant changes in mental status can occur without the patient losing consciousness. These changes often include various degrees of cognitive impairment. Many conditions initially manifest with a change in mental status as the primary symptom. Depending on the age and general health of the patient, there are a wide variety of potential underlying causes of this symptom. In pediatric populations, neurological disorders, trauma, shock, metabolic disorders, poisoning, and CNS infections are most common. In the elderly, mental status changes are common effects of medication, electrolyte imbalances, or infection.

A change in mental status is most often noticed by family or caregivers, with the patient unaware or reluctant to seek care. Altered mental status is reportable when it cannot be attributed to an underlying cause, or if there is no other diagnosis or condition for which mental status changes are an integral part of the disease process.



What is Confusion?

Confusion is the inability to think as clearly or quickly as you normally do. You may feel disoriented and have difficulty paying attention, remembering, and making decisions.



Coding AMS and Confusion

When the AMS or confusion is not further specified:

- R41.82 Altered mental status, unspecified
- R41.0 Disorientation, unspecified



Coding Scenario

Question: 65-year-old male patient admitted with confusion. Patient is a known alcoholic with a history of 20-year dependence. Final diagnosis is delirium tremens. How would this be coded?

Answer: F10.231 Alcohol dependence with withdrawal delirium

*You may also add an additional code for blood alcohol level (Y90-), if applicable



Treatments

1) Medications to treat mental function, and may balance mood, such as:

- Memantine
- Rivastigmine
- Galantamine
- Donepezil

Occupational therapy to improve the work and daily living skills

Rehabilitation to improve mental and physical functioning



In Conclusion

- If documentation of confusion or AMS is mentioned, look for an underlying cause such as dementia, encephalopathy or delirium.
- When coding dementia, look for type such as Alzheimer's, Parkinson's, etc.
- Alzheimer's can be further clarified as early or late onset
- Remember that Parkinson's dementia and dementia with Parkinsonism are coded differently
- When coding encephalopathy, look for type such as metabolic, hepatic, etc.
- Some types of encephalopathy can be code together, if both are present, such as metabolic and hepatic.
- When coding delirium, look for type such as postprocedural or tremens.
- There is a coding directive with delirium code F05 to code the underlying physiological condition first.
- When in doubt, queries are helpful.



References

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Thank You and Happy Coding!